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MESSIAH COLLEGE: A CHRISTIAN COLLEGE OF THE LIBERAL & APPLIED ARTS & SCIENCES

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A CHRISTIAN COLLEGE OF THE LIBERAL & APPLIED ARTS & SCIENCES

Messiah College Undergraduate Catalog

2017–2018



A Message from the President

Welcome to Messiah College – a Christ centered educational community committed to the intellectual, personal, and spiritual development of our students. Messiah seeks to prepare women and men to effectively lead and serve a global society. Our educational program is designed to challenge and motivate students to develop and use their individual gifts and abilities in service to God and others.

Messiah offers a program of 87 academic majors in the liberal and applied arts and sciences. All students are required to complete a core general education program and an academic major. In addition, we enable our students to participate in an array of experiential learning opportunities which include off-campus study at over 40 sites, internships and career-related experiences, service learning, leadership development and guided undergraduate research. Messiah's educators possess a serious commitment to teaching and scholarship. Accomplished Christian scholars and experts in their disciplines, our educators are student-centered—serving as mentors to help students engage in deep learning and the pursuit of meaningful vocations.

If you are interested in pursuing an educational experience that will challenge and transform, I invite you to consider Messiah College.
Kim S. Phipps
President

Identity and Mission

Three statements best describe the identity and mission of Messiah College:

- Messiah College is a Christian college of the liberal and applied arts and sciences.
- The College is committed to an embracing evangelical spirit rooted in the Anabaptist, Pietist, and Wesleyan traditions of the Christian Church.
- Our mission is to educate men and women toward maturity of intellect, character, and Christian faith in preparation for lives of service, leadership, and reconciliation in church and society.

Statement on Liberal Learning and Christian Scholarship

Messiah College educates for mature Christian citizenship. This means that:

- we expect our faculty to teach as Christian scholars in pursuit of faithfulness to both God and academic disciplines;
- we embrace liberal learning, believing that all truth is God's truth—revealed by God to be understood and applied by each of us;
- we expose our students to multiple views and perspectives to enable them to respond with maturity to the complexities of the contemporary world;
- we approach intellectual questions in a spirit of humility recognizing that each individual's knowledge, understanding, and wisdom are finite; and
- we seek to learn in order to better serve God and others.

Statement on Nondiscrimination

Messiah College does not discriminate on the basis of gender, race, color, age, disability, or national or ethnic origin in the administration of its educational policies, scholarship and loan programs, and athletic or other College-administered programs.

Statement on Change

The provisions and requirements stated in the Messiah College Catalog are not to be considered as an irrevocable contract between the student and Messiah College. The College reserves the right to change any of the provisions or requirements at any time within the student's term of residence. No such change, however, will be applied retroactively so as to extend the time normally required for completion of the student's program. The College reserves the right to cancel any announced program, major, or course, as well as change the course instructor or change the time it will be offered. The College's obligation to continue to offer any programs or majors in conjunction with another institution is expressly contingent on the institution's continued participation.

ACCREDITATION and MEMBERSHIPS

Since 1963, Messiah College has been accredited by the Middle States Association of Colleges and Schools, Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104-2680. Telephone: 267-284-5000.

Accreditors Recognized by U.S. Secretary of Education: The Academy of Nutrition and Dietetics, Accreditation Commission for Education in Nutrition and Dietetics (ACEND); Commission on Collegiate Nursing Education (CCNE); Council for Accreditation of Counseling and Related Educational Programs (CACREP); National Association of Schools of Art and Design (NASAD), Commission on Accreditation; National Association of Schools of Music (NASM), Commission on Accreditation; National Association of Schools of Theatre (NAST), Commission on Accreditation.

Accreditors Recognized by the Counsel for Higher Education Accreditation: PA Department of Education (Teaching Certification Programs); The Bachelor of Science in Engineering (BSE) degree is accredited by the Engineering Accreditation Commission of ABET <http://www.abet.org>; Accreditation Council for Business Schools and Program (ACBSP); Council on Social Work Education (CSWE).

Other Accreditors and Approvals: American Chemical Society Committee on Professional Training Approval; Commission on Accreditation of Athletic Training Education (CAATE); National Council on Family Relations' (NCFR) Certified Family Life Educator Approval.

As an active participant in current developments in higher education, the College also holds educational memberships in many organizations, including the Association of American Colleges and Universities, the Association of Independent Colleges and Universities of Pennsylvania, the Council of Independent Colleges, the Christian College Consortium, the Council for Christian Colleges and Universities, the National Association of Independent Colleges and Universities, and the Council for Advancement and Support of Education.

COLLEGE PROFILE

History

Founded in 1909 by the Brethren in Christ Church in Harrisburg, Pennsylvania, to “educate men and women for home and foreign mission or evangelistic work,” Messiah Bible School and Missionary Training Home originally had seven faculty and staff members and 12 students. By the end of the first school year, enrollment had risen to thirty-seven students, and construction was under way for Old Main, the first building on the College’s current Mechanicsburg Campus.

In 1924, the school’s name was changed to Messiah Bible College. This change accurately reflected the institution’s broadening curriculum and the junior college status it achieved in 1922. By 1951, the College was approved to confer baccalaureate degrees and was renamed Messiah College. Accreditation from the Middle States Association of Colleges and Secondary Schools was achieved in 1963. Messiah initiated a satellite campus in Philadelphia in 1968, which it continued to operate through 2014, and in 1983 launched Messiah College-Africa in Nairobi, Kenya, leading to the chartering of Daystar University in 1993. During the past three decades, the College significantly increased the number of majors offered in the liberal arts and introduced degree programs in several applied areas. Messiah College now offers more than 80 undergraduate academic majors. In 2009, Messiah also began offering quality graduate programs in fields such as counseling, education, nursing and business through a flexible, hybrid format of traditional and online courses.

Growth in the student body and in facilities accompanied growth in the academic program. Contributing to the growth in number of students was the College’s policy, declared in its earliest official statements, of welcoming students from all denominations and church traditions. From a first-year total of 12 students, the student body has grown to more than 3,000 undergraduate and graduate students, representing over 60 denominations. Facilities increased from a single building to a main campus of 471 acres in Mechanicsburg, near the state capital and conveniently located to urban Philadelphia, Baltimore and Washington, D.C.

Until 1972, Messiah College was owned and operated by the Brethren in Christ Church. Today, the College and Church share in a covenantal relationship, through which each of these two communities works to further the ministry of the other. Legal control rests with a self-perpetuating Board of Trustees.

Two presidents held notably long terms of office. C. N. Hostetter, Jr. (president from 1934 to 1960), directed the College through the difficult years of the Depression and guided its academic life into the beginning of a four-year liberal arts college. D. Ray Hostetter presided for 30 years (1964–1994) over an expansion that occurred on virtually every level of Messiah College’s life. From 1994–2004, the College had the benefit of the inspired leadership of Rodney J. Sawatsky who positioned Messiah as a nationally ranked institution characterized as academically rigorous and unapologetically Christian. In December 2004, the College celebrated the appointment of its eighth and current president, Kim S. Phipps. During Dr. Phipps’ presidency, Messiah has continued to innovate, develop, and enhance academic programs, campus facilities and resources and its national profile as the College enters its second century.

Even with the changes of past years, various elements in the history of Messiah College have remained constant – an emphasis on a commitment to academic excellence, education for service, hospitality towards students and educators from a diversity of backgrounds and an endeavor to make Christ preeminent in all of life.

Foundational Values

The College motto “Christ Preeminent” points to Jesus Christ as both the ground for personal salvation and the pattern for life and service. Since its founding, Messiah College has affirmed a set of values derived from the Anabaptist, Pietist, and Wesleyan traditions. The following five ideals summarize how Messiah College defines its distinctive Christian character:

Unity of Faith, Learning, and Life. This principle affirms the wholeness of persons and the unity of every dimension of life as revealed in the incarnation of Jesus Christ. It also emphasizes that all truth is God’s truth and thus avoids the creation of false dichotomies in thinking and in living. Messiah College affirms a united Christian worldview and lifestyle that joins revelation with rational inquiry and that integrates believing with doing. Accordingly, Christian “calling” and vocation is broadly understood. All of our gifts, talents, and interests are to be nurtured as acts of praise towards God while serving humanity and all creation.

Importance of the Person. Every person is to be respected and valued, regardless of gender, race, nationality, status, or position, because each person is created in the image of God. Freedom and responsibility are primary characteristics of being human, and we must take care to protect each other’s freedom while encouraging responsible living. As free agents, individuals make choices that determine the contours of their lives, and they bear responsibility for those choices. Individuals are accountable for their manner of response to God’s grace. Similarly, every person must be responsible in their pursuit of truth, and yet be free to develop their own understandings as they integrate their formal studies with their broader experience and faith.

Significance of Community. Our understanding of the Church as the body of Christ and our recognition of humanity’s interdependence cause us to value community. In community, we voluntarily share our lives with each other, we care for each other, we rejoice and suffer together, we worship together, and we offer counsel to each other. While every community develops rules, in Christian communities such rules should always be humane, recognizing the impact they have on the lives of those affected, and should help us appreciate each other’s gifts and talents. In any community there will be tensions that require mutual give and take, but a Christian spirit of care and support provides the security needed to accept one’s own weaknesses and those of others. The ultimate goal of every Christian community should be to help us live more faithfully as disciples of Christ.

Disciplined and Creative Living. The mature Christian life is characterized by a delicate mix of discipline and creativity. We are called to a life of devotion and obedience to the Gospel. Such discipleship demands of us self-control and sacrifice and requires us to examine all our wants and desires in the light of God’s holiness. The Gospel also calls us to celebrate the goodness of creation and to live our lives in active engagement with this ever-changing world in which God has placed us. In order to fulfill these tasks, we must be

both creative interpreters of the world around us and creative actors in that world. Creativity and discipline are complementary characteristics of the mature, joyful Christian life.

Service and Reconciliation. Central to the Gospel is the work of reconciling individuals with God, with each other, and with all of creation. God has called us to be active agents in this work, as we are empowered by the Holy Spirit and bear the fruit of the Spirit within us: love, joy, peace, patience, kindness, generosity, faithfulness, gentleness, and self-control. Prepared in this way, we are compelled to share the redeeming Gospel of Jesus with those around us; to build bridges of understanding and peace across the dividing lines of race, class, age, gender, religion, and ethnicity; to demonstrate the love of God in service to others; to open our hearts to the poor and needy; and to work for justice wherever injustice prevails.

College-Wide Educational Objectives

Messiah College is dedicated to helping students blend faith with learning in service to the world. As a Christian college of the liberal and applied arts and sciences, Messiah College advocates a bold and disciplined exploration of the world and expects its students to both embrace and participate in that endeavor. At the same time, Messiah seeks to instill in its students a sense of intellectual humility, recognizing that even the most learned persons have limited insight and therefore need the insights of others.

The paradigm under which Messiah’s educational programs are designed is that of liberal education. By raising the right questions, exposing students to multiple perspectives, and encouraging critical thinking, Messiah seeks to enable its students to respond with maturity to the world’s complexities. In addition to nurturing these intellectual skills, the College encourages its students to apply their knowledge to the needs of the world—as servants, as leaders, as agents of reconciliation.

Messiah College offers two academic undergraduate degrees: the Bachelor of Arts (B.A.) and Bachelor of Science (B.S.). When combined with purposeful cocurricular activities, these programs of academic study enable students to gain a perspective of who they ought to be and provide them with the abilities to live effectively as intellectually competent, socially responsible citizens of the world.

Messiah College has a historic relationship with the Brethren in Christ Church. Now expressed in a covenant agreement, this heritage informs the College’s programs and activities. The distinctives of this heritage, which is rooted in the Anabaptist, Pietist, and Wesleyan traditions of the Christian faith, include emphases on justice-seeking, peacemaking, reconciliation, evangelism, and service. Accordingly, the College encourages and prepares students to act as servants who extend the gifts of grace and peace to a broken world. The College also recognizes the need for each individual to appropriate the Christian faith and express that commitment in daily living within a community.

While we realize that learning is a lifelong endeavor, Messiah College expects its graduates to have made progress toward the fulfillment of the following seven objectives (see “Objectives” below). From a practical standpoint, these seven objectives and their subpoints are both interdependent and overlapping, i.e., while they may be visualized discretely and assessed independently, they are nonetheless connected to one another in numerous ways and will often be pursued in multiple program areas. While the relationships between

these seven objectives might be articulated in a variety of ways, they are listed and ordered with a particular rationale in mind.

Objectives:

- 1. To develop those abilities essential to liberal education.** These abilities include:
 - a. Thinking logically and creatively, analytically and synthetically, and abstractly and concretely;
 - b. Reading, observing, and listening carefully and critically;
 - c. Writing and speaking clearly and coherently;
 - d. Appreciating the aesthetic dimensions of life;
 - e. Functioning effectively in quantitatively and technologically oriented cultures;
 - f. Accessing, evaluating, and using information effectively and ethically;
 - g. Pursuing the process of learning as a lifelong pursuit;
 - h. Balancing commitment with humility.
- 2. To gain knowledge common to liberal education.** This includes:
 - a. Developing basic understanding of geographical, social, political, and religious realities throughout the world;
 - b. Learning significant aspects of the Western social, cultural, political, religious, and philosophical heritage;
 - c. Learning significant aspects of at least one non-Western culture;
 - d. Becoming aware of how people of different cultures perceive the world, interpret reality, and make meaning;
 - e. Learning the methods, philosophies, and basic principles of the mathematical, natural, and social sciences;
 - f. Learning the traditions and methods of the arts and the humanities;
 - g. Making connections (i.e., probing relationships, including congruencies and contradictions) between learnings acquired in a-f above.
- 3. To become biblically literate and theologically reflective.** This includes:
 - a. Developing knowledge of and about God as revealed in Jesus Christ;
 - b. Gaining knowledge of the Bible's content and themes, including the biblical witness on service, leadership, and reconciliation;
 - c. Learning about historic Christian beliefs, practices, and ecclesiastical expressions, and the particular emphases of the Anabaptist, Pietist, and Wesleyan traditions;
 - d. Becoming familiar with contemporary theological dialogue and biblical scholarship;
 - e. Recognizing the influence of culture upon the Christian faith, and appreciating the insights that other cultures contribute to Christian theology and practice;
 - f. Acquiring the ability to articulate and evaluate one's faith;
 - g. Exploring various connections between faith and learning.
- 4. To attain specialized knowledge and abilities in at least one area of study.** This includes:
 - a. Understanding the foundational content and philosophical assumptions of one's specialized area of study;
 - b. Engaging in scholarship in one's specialized area of study;
 - c. Developing proficiency in one's specialized area of study sufficient to pursue a career and/or continue education at the graduate level;
 - d. Gaining an awareness of options for employment, voluntary service, and/or graduate education in one's specialized area of study;
 - e. Articulating how faith connects to one's specialized area of study and to potential career options in that area of study.
- 5. To develop an understanding of one's identity and Christian vocation.** This includes:
 - a. Developing an awareness of and concern for the whole person, including physical, emotional and spiritual wellness;
 - b. Acquiring an appreciation for how one's faith, community, and culture impact one's identity and sense of meaning;
 - c. Developing a sense of vocation that includes but transcends career choice;
 - d. Gaining a realistic sense of one's distinctiveness, including one's interests, abilities, and limitations;
 - e. Discerning and reflecting on the role(s) one assumes in groups, including one's faith community.
- 6. To develop the intellect and character necessary to express Christian commitments in responsible decisions and actions.** This includes:
 - a. Developing individual and corporate spiritual disciplines that nurture personal faith and compassion for others;
 - b. Assessing cultural values and ethical traditions in light of the biblical witness;
 - c. Applying the insights of Christian theology and ethics to complex social and personal issues;
 - d. Understanding the nature and causes of violence in the world and the means for promoting peace;
 - e. Recognizing the implications of living in an increasingly interdependent world;
 - f. Evaluating institutional policies and social/cultural practices on the basis of whether they promote peace, justice, and reconciliation;
 - g. Gaining an appreciation for cultural and ethnic diversity.
- 7. To become servants, leaders, and reconcilers in the world.** This includes:
 - a. Practicing a lifestyle based on Christian commitments;
 - b. Developing a sense of civic responsibility and commitment to work with others for the common good;
 - c. Developing the courage to act responsibly and redemptively in a complex world;
 - d. Practicing good stewardship of economic and natural resources;
 - e. Acting in ways that respect gender, cultural, and ethnic diversity;
 - f. Making decisions that reflect an ethic of service, a concern for justice, and a desire for reconciliation;
 - g. Recognizing the relevance of Christian faith to all of life.

Christian Tradition

Messiah College was founded by educators with strong denominational concerns; but the College has never been narrowly sectarian. We welcome students without regard to denominational affiliation. The College follows the historic Christian tradition and has adopted the Apostles' Creed as an expression of the essential core of Christian commitments at the College.

Apostles' Creed

I believe in God the Father almighty, Creator of heaven and earth. I believe in Jesus Christ, God's only Son, our Lord, who was conceived by the Holy Spirit, born of the Virgin Mary, suffered under Pontius Pilate, was crucified, died and was buried. He descended to the dead. On the third day he rose again, ascended into heaven, and is seated at the right hand of the Father. He will come again to judge the living and the dead. I believe in the Holy Spirit, the holy catholic Church, the communion of saints, the forgiveness of sins, the resurrection of the body, and the life everlasting. Amen.

In campus worship services the College also frequently uses a confession which expresses the faith orientation of the College in a nonsectarian manner, highlighting the specific emphases of the Anabaptist, Pietistic, and Wesleyan traditions of the Christian faith.

Confession of Faith

We believe in the triune God—Father, Son, and Holy Spirit—who created and sustains the universe, and who desires to redeem us and all creation.

God creates each of us in the very image of God to live in loving relationships: free, responsible, and accountable to God and each other for our decisions and our actions.

God speaks to us in many different ways, times, and places but is uniquely revealed to all the world in Jesus of Nazareth, who was fully human and fully divine.

God forgives our sins, renews our hearts and minds, and calls us to join in the work of reconciliation by grace through faith in the life, teachings, death, and resurrection of Jesus Christ.

God bestows on us the Holy Spirit who leads us to repentance, instructs us in righteousness, and empowers us to live joyfully as disciples of Christ, as servants of others, and as caretakers of the created order.

God calls us to unite in the Church as a visible community of believers which celebrates God's grace in its worship and bears witness to the truth of the Gospel through its being, doing, and speaking.

God gives us the Bible as the inspired, trustworthy, and authoritative Scripture to reveal God's ways and purposes, to nourish our minds and souls, and to instruct us in how we ought to think and to live.

God instructs us to pursue the kingdom of peace, righteousness, and justice which ultimately will prevail with the return of Christ and assures us that those judged faithful will share resurrected life with God and all the saints forever.

We praise the one God—our Creator, Redeemer, and Sustainer—who has called us to personal faith and new life in Christ and to so order our lives that they may demonstrate the truth of our confession. Amen.

Resources

Messiah has enjoyed the steadily growing support of its alumni and a broad coalition of friends of Christian higher education. These include a wide variety of individuals, corporations, Christian churches, and the central Pennsylvania cultural and business community. As a result, Messiah College maintains a stable financial position and balances its budgets, and consistently generates positive operating results. The College's total net worth, including endowment and trust funds, exceeds \$240 million. Such support and stability is reassuring in a day when rising costs threaten to erode the financial base of many educational institutions.

The Mechanicsburg Campus

Mechanicsburg, Pennsylvania, 12 miles southwest of the capital city, Harrisburg, provides Messiah College with a suburban setting and convenient access to the urban centers of Harrisburg, Philadelphia, Baltimore, and Washington, D.C. Since 1910, the Mechanicsburg Campus has been developed into a 400-acre site with modern, attractive facilities accommodating academic, social, religious, and athletic activities.

Faculty

Our teaching faculty, the most valuable resource at Messiah College, numbers approximately 197 full-time men and women, plus about 149 part-time members. Coming from a multitude of backgrounds, they represent nearly 150 graduate schools in several countries and many denominational affiliations. The total campus employment is about 890 employees.

Academic Facilities

Boyer Hall is home to the Boyer Center, the School of the Humanities and the Departments of Education, Human Development and Family Science, Psychology, Social Work, and Sociology, Anthropology and Criminal Justice. Along with classrooms and faculty offices, the building houses a state-of-the-art cinema for film studies and a computerized language lab.

Climenhaga Building is home to the School of the Arts. The building houses a lecture hall/theatre, a small blackbox theatre, a dance studio, practice rooms, art studios, darkroom, theatre work space, and faculty offices. The building's Aughinbaugh Art Gallery prominently displays artwork of students and well-known artists for community viewing.

Calvin and Janet High Center for Worship and Performing Arts includes Parmer Hall, a 900 seat performance/worship hall; High Foundation Recital Hall with a capacity seating of 150; choral and instrumental rehearsal rooms; state of the art recording studio; and practice rooms, as well as and other studios and faculty offices.

Frey Hall provides educational space for the Departments of Engineering; Business; Mathematics, Physics, and Statistics; Computer and Information Science; as well as some Visual Arts programs. In addition to classroom space, there is a lecture hall, art studios, computer, engineering and physics labs, and faculty offices.

Hoffman Hall provides office space for Learning Services Technology, Information Technology, and the Procurement Department.

Jordan Science Center and The Oakes Museum of Natural History is the home of the Department of Biological Sciences and the Department of Nutrition and Dietetics. This state-of-the-art science

facility provides technologically advanced science laboratories and equipment, faculty offices, and classrooms. The Museum showcases the College's outstanding treasury of large mammal, insect, seashell, and bird collections and serves as a resource to central Pennsylvania, offering visitors a close look at the wonders of creation.

Kline Hall provides space for the Departments of Nursing and Chemistry and Biochemistry programs, with general classrooms, science and nursing labs, as well as faculty offices. A state of the art simulation lab is a recent addition to the Nursing facilities.

Larsen Student Union opened in the spring of 2004 and houses the Intercultural Office, student government offices, is the home to *The Pulse*, the student media hub for students, a casual dining facility, and both indoor and outdoor space for student functions and socializing.

Old Main houses the Office of the President, the Office of the Provost and administrative offices for admissions, financial aid, human resources, operations, business and finance, development, marketing and communications, as well as the Registrar's Office.

Murray Library and Learning Commons provides a wide variety of learning resources in an architecturally striking atmosphere. The library houses more than 250,000 items including books, periodicals, and audio/visual media and provides access to thousands of digital resources – ebooks, ejournals, and databases—through myriad subscription services. In addition, the library is home to audiovisual production space, a film production studio, a computer laboratory, and the archives of the College and Brethren in Christ Church. Disability Services, the Learning Center, and the Writing Center moved into the building in 2013, consolidating educational services to support student learning in one facility.

Campus Center

The **Eisenhower Campus Center** (ECC) houses an auditorium/gymnasium which seats up to 2,200 for Chapel services, The Campus Store and Textbook Express, student mailboxes and Post Office, a 650 seat dining room, a private dining room, the Falcon (a retail restaurant), locker rooms, the Alumni Office, and administrative offices. The Career and Professional Development Center, also located in the Eisenhower Campus Center, guides students in the selection of a career and search for employment.

With several local, regional and national awards to its credit, Messiah College's Dining Services has a reputation of serving nutritious, appetizing and attractive meals. Students living in campus residence halls will be assigned the Dining Dollars meal plan. Students in apartment residences and commuters would benefit from purchasing the meal plan or Falcon Dollars for all their Dining purchases. Messiah College dining locations include the Lottie Nelson Dining Room and Martin Commons, The Falcon, The Union Café and the Café Diem.

All students are assigned a post office box on the main floor of the Campus Center. The College maintains a daily exchange of mail with the local post office, Mechanicsburg, PA 17055.

The Falcon Exchange is located on the second floor of ECC. This office is responsible for issuing Falcon Cards to employees and students, cashiering services, and student parking assignments. The Falcon Card is used for identification as well as a declining-balance debit card that can be used across campus and is a student's access card into their residence hall.

Athletic Facilities

The **Sollenberger Sports Center** is home to the Department of Health, Nutrition and Exercise Science and Athletics. It provides exceptional recreational and intercollegiate athletic facilities. This 133,000-square-foot complex houses Hitchcock arena, Athletics home NCAA competition court. There is also an indoor track, a natatorium including an eight-lane swimming pool, classrooms, faculty offices, locker rooms, wrestling room and the state of the art Falcon Fitness Center with a fully equipped cardiovascular section, exceptional resistance training area, and a spacious group exercise classroom. Sawyer Products Gymnasium provide 2 additional practice courts for athletics, classes and rec sports.

Outdoors, the **Starry Athletic Complex** includes a lighted artificial turf field for field hockey and lacrosse, a lighted soccer stadium with bleacher seating for 2,000, a newly renovated eight-lane all-weather metric track, ten tennis courts, a baseball field, a softball field, and irrigated practice fields.

CAMPUS LIFE

Campus life at Messiah College encourages students to stretch and grow intellectually, spiritually, personally, and vocationally. Ultimately, students bear much of the responsibility for their personal growth. Among the marks of maturity are the ability to be self-directed, a willingness to surrender individual wishes for the benefit of the community, and the ability to pursue long-term objectives. Using their gifts, students not only gain from the Messiah College community, but also contribute to it.

An Engaged Community

To encourage students to develop into well-rounded men and women, Messiah intentionally shapes the campus environment and provides a range of high-quality learning experiences both inside and outside the classroom. The College seeks to provide a learning experience that is both nurturing and challenging. Individual freedom is best expressed alongside social responsibility, and core commitments are balanced by an openness to diverse perspectives.

A Community with Common Commitments and Diverse Perspectives. As a Christian community of learners, we strive to make Christ preeminent as we pursue academic work, build meaningful personal relationships, shape personal convictions, and strengthen awareness of social responsibility. Our primary commitment is to God. We affirm that all life draws meaning from submission to Christ and service to others. Because of the importance of knowing God and God's Word, we commit ourselves to individual and corporate spiritual disciplines. As teachers and learners we see our activities as acts of service and honor to God. We respond in love to God and to those God has created. As God's stewards on earth, we strive to put biblical teaching into practice in the way we relate to others and to the world around us.

Within our common commitments we celebrate the diversity of Christian perspectives and Church traditions represented by our students, educators, administrators, and trustees. We encourage everyone to understand and appreciate these differences. Furthermore, we discuss and debate multiple perspectives in a spirit of Christian care and civility as we pursue clarity and truth.

We also maintain a common commitment of respect for all people. We embrace within our faculty and student body men and women of various races and ethnicities and from diverse denominations and church traditions. As a College we hold that prejudice based upon race, ethnicity, economic class, gender, disability, or nationality is wrong. We view discrimination as contrary to the biblical concept of justice, and we expect students to make sincere efforts to avoid such discrimination and to base their attitudes and actions upon the principles of Christian love and equality in the eyes of God.

A Community of Responsible Learning and Living. As an academic community, Messiah supports an environment where learning pervades all activities. We embrace liberal learning, believing that all truth is God's truth—revealed by God to be understood and applied by each of us. We approach all intellectual questions in a spirit of humility, recognizing that each individual's knowledge, understanding, and wisdom are finite. We expose our students to many different views and perspectives which enable them to respond with maturity to the complexities of our world.

We also have a commitment to the world around us and to our College community. We encourage and prepare our students for lives of service, reconciliation, and peacemaking both locally and around the world.

We seek to provide an atmosphere where responsible learning and living are encouraged. Because of this commitment, Messiah College expects students to adhere to certain standards of personal conduct. We have set these standards out of consideration for biblical principles, civil law, a desire to advance learning, and our need to function effectively and efficiently.

In order to secure the benefits of college life for the entire College community, Messiah prohibits indulgence in harmful practices including the use of alcohol, tobacco, and illegal drugs. Although individuals may hold differing opinions about some of these standards, the College asks that students and their visitors abide by these expectations. The College assumes that students who accept admission will have carefully considered campus expectations and decided that they can learn and live happily within these guidelines for community living. Elaborations on these and other College expectations, as well as processes for addressing concerns, can be found in the annually updated *Student Handbook* posted on the College's Internet site.

A Community for Developing Faith. A central aspect of our mission is to educate students "toward maturity of Christian faith." As a Christian academic community, we affirm Jesus Christ as our ultimate norm for goodness and truth. We affirm an authoritative view of the Scriptures as God's Word, and we require all students to complete courses in biblical studies and theology. Though the College is not a church, we are still an active worshiping community, and students are required to attend campus chapel services regularly.

We expect the faith of our students, just like the faith of all who work at the College, to be a developing faith. The College provides students with a safe yet challenging place to explore their faith and to ask difficult questions. We cultivate an environment which nurtures personal faith in God and expressions of devotion to God.

We encourage active discussion of all areas of faith within a supportive Christian academic environment. The Department of College Ministries, in partnership with other members of the campus community, supports students' Christian spiritual formation through campus-wide programs, small group sessions, and individual mentoring.

A Community of Transformation. We expect our students to mature, grow, and change—indeed to "be transformed by the renewing of their minds"—throughout their undergraduate studies. We affirm the interrelatedness of what we believe, the way we live, and the way we learn. Because growth does not occur in isolation, we have chosen to be primarily a residential college. The experience of living with others who are both similar to us and different provides the context for interpersonal growth and learning. Our faculty challenge and nurture students toward growth and maturity in many ways. We foster a campus learning environment that supports and advances classroom learning. The Office of Residence Life coordinates residence hall programs that address holistic education—for mind, body, heart, and soul.

A Community of Service. Because Messiah's distinctives include justice, peacemaking, reconciliation, and service in our world, the

College prepares students to act as Christian servants who extend the gifts of grace and peace to a broken and needy world. The Agapé Center for Service and Learning organizes and supports numerous student activities for service locally in Harrisburg, regionally throughout Pennsylvania, and globally. The College also offers a Service-Learning program in which a summer service experience is complemented with two academic courses. Many individual courses include active service components as well. The Career and Professional Development Center also offer interested students service-oriented internships and employment opportunities with local non-profit agencies.

Chapel

Chapel at Messiah College is a central expression of our identity as a community of Christians with a deep commitment to spiritual growth and academic excellence. Chapel is an opportunity for exposure to various forms of worship, speakers and ideas which are planned with the intention of affirming our common commitments while they both reflect and challenge individual preferences in style. Because we believe chapel provides an important role in spiritual formation, students are required to attend 14 chapels each semester.

The Messiah College chapel program is designed to build community and foster Christian growth. On Tuesday mornings, many members of the Messiah community gather in Brubaker Auditorium for a worship service that is designed to exalt the Lord Jesus and to pursue biblical literacy through the preaching of the Word. On Tuesday evenings in Hostetter Chapel, a smaller service, often developed in collaboration with campus partners, is offered that focuses on a specific topic connected to a program or speaker. On Thursday mornings, chapel is designed so that educators and students can convene in smaller venues for Bible studies, book studies, the practice of spiritual disciplines, as well as an array of discussions regarding Christian life and culture.

Residence Life

Messiah College is a residential community and places a high value on the educational opportunities afforded to students living on campus. Campus residences provide more than a place for sleep and study; they promote an environment for personal growth. By living together, students are exposed to people with different backgrounds, habits, ideas, and personalities. Through living and learning together, students learn more about themselves and what it means to live in community. Ideas are sharpened, goals are more clearly focused, and personal identity is solidified. Residence Life serves to advance College Wide Educational Objectives by facilitating educational programs and environments conducive to personal growth and academic success.

The College offers both traditional residence halls and apartment-style residences on campus. Staffed by trained, full-time professional Residence Directors and Student Resident Assistants, these facilities provide an environment which fosters personal growth and responsibility, as students practice living in Christian community. Each residence is equipped with washing machines and dryers, free to students. The halls have a security system that requires students to use their ID card to gain entrance to the building and the floors. Policies for student residences are provided in the *Student Handbook*.

Traditional Residence Halls. Residents share a room with one to four students. The North Complex consists of Grantham, Hess, and Miller; the South Complex consists of Mountain View, Sollenberger,

and Bittner. Naugle and Witmer residences are independent buildings. Naugle, Witmer, and Bittner are designated for first-year and transfer students.

Campus Apartments. Four apartment buildings provide living accommodations for three to five students. Fry, Smith, Mellinger, and Kelly residences are campus apartments. Residents share kitchen and living areas in their apartments.

Special Interest Housing. Houses on or near campus provide unique opportunities for small groups of students to live together and create a theme and mission for their house.

The **SALT Program** (Serving and Living Together) in Harrisburg connects community living, service and urban learning. The College's downtown presence offers housing for 23 students and encourages students to explore Harrisburg through service and experiential learning. One, two, and four-person apartments are available in the Harrisburg Institute, all of which are fully furnished and have interior entrances. The Harrisburg Institute is located at the corner of Dewberry and Blackberry, just south of Strawberry Square in downtown Harrisburg.

College residence halls open for Welcome Week in the fall and close during Christmas Break. Students may remain in campus residences over spring break with the approval of Residence Life staff. The College does not insure student belongings. Students are encouraged to obtain their own property insurance for personal belongings brought to the College.

Resources for Campus Involvement

With a population of over 2,900 students, the College recognizes that students bring many interests and abilities. Messiah seeks to facilitate programs and activities which foster personal, academic, social, and spiritual growth, and enhance vocational development.

Athletics and Recreation

Recreational and intercollegiate sports programs provide opportunities for students to compete and to get together outside the classroom.

Adventure Programming. The Loft serves Messiah College by providing opportunities for leadership development and team building through adventure programming. Events include caving, rock climbing, high challenge course, team problem-solving initiatives, paddling, and spring break trips. Staff and student leaders focus on proper technical and group facilitation skills. Understanding the significance of group process, God's creation, and the challenge at hand are all integral elements of the program. These experiences provide an opportunity for students to move outside of their comfort zone and to holistically pursue the issues of leadership, identity, and spirituality. Each year, students are selected to serve as **LOFT Facilitators**. These students serve as facilitators of teambuilding and leadership development activities using experiential education and adventure programming to serve our campus. This group of students is trained and mentored by the Coordinator of Cocurricular Adventure Programs.

Club Sports. Club sport organizations at Messiah College are student organizations whose members meet regularly to pursue an interest in sport or physical activity that includes outside competition.

Intercollegiate Sports. A member of the National Collegiate Athletic Association Division III, Messiah College fields 23 teams that compete within the Commonwealth Conference of the Middle Atlantic Conference. Men participate in volleyball, swimming, cross country, soccer, basketball, wrestling, baseball, tennis, golf, lacrosse, indoor track and field, and outdoor track and field. Women participate in swimming, cross country, field hockey, soccer, volleyball, basketball, tennis, softball, lacrosse, indoor track and field, and outdoor track and field.

Music and Theatre. Music ensembles include Brass Choir, Chamber Ensembles, Choral Arts Society, Symphony Orchestra, Concert Choir, Flute Choir, Handbell Choir, Jazz Ensemble, One College Ave, Men's Ensemble, Percussion Ensemble, Symphonic Winds, United Voices of Praise Gospel Choir, and Women's Ensemble. Theatre Messiah presents five to six fully-mounted productions per year.

Orientation Leaders. Leaders are selected based on their prior leadership experiences, academic record, and ability to serve as a mentor to first-year students. Typically, Orientation Leaders are sophomores and juniors who work closely with First-Year Seminar instructors and the Office of Student Involvement and Leadership Programs to provide enthusiastic support for new students in their transition to college.

Recreation. Messiah's campus provides opportunities for many outdoor activities, including hiking, canoeing, fishing, and birdwatching. Indoors, the Sollenberger Sports Center offers an indoor pool, racquetball and basketball courts, and a fitness center. The fitness center offers an indoor track and exercise machines. During the winter, the surrounding area offers downhill skiing.

Recreational Sports. Recreational Sports leagues and tournaments are opportunities for competition, physical fitness, and fun. Leagues include soccer, flag football, volleyball, basketball, Ultimate Frisbee, and softball.

International Student Programs

International Student Programs seeks to create a safe space that provides support and connections for international, missionary, and third culture students during their transition to the American college campus culture and to Messiah College. Programs and services include:

F-1 International Student Advising informs and educates F-1 international students about U.S. government regulations and assists them in achieving positive results in maintaining their F-1 status.

International and Missionary/Third Culture Student Orientation is an intensive educational and spiritual acculturation experience for international students and the children of missionaries and other professionals living abroad who have recently re-arrived in the United States. Orientation generally includes activities related to educational advising, housing, and working requirements.

Academic Support is offered to international students in collaboration with students' department advisors. In addition, new international students arriving from abroad for the fall semester enroll in a 1-credit course called Adaptation to American Education designed to provide on-going, in-depth orientation regarding cross-cultural adaptation to America in general, and to the American classroom (as experienced at Messiah College) in specific.

Rafiki House is special-interest housing for students committed to living in community focused on international diversity. The house also provides an intentional space for the international students and the children of parents abroad to find each other, fellowship, and hang out.

Multicultural Student Programs at Messiah College's purpose is to meet the unique needs of domestic under-represented students to support them in achieving personal growth and success while providing educational programs, services and resources that promote racially, ethnically, culturally and globally diverse safe and transformative learning environments for all members of the college community. Programs include:

Heritage Month Programs incorporate films, discussions, speakers, and cultural celebrations to provide a forum for learning about unspoken histories in the United States, and add different perspectives to the retellings of our past.

Rev. Dr. Martin Luther King Jr. Commemoration invites the campus community to reflect on the prophetic ministry and vision of Dr. King, and the call of God for all Christians to respond to the contemporary suffering of God's creation and human struggles for justice, reconciliation, and peace.

Scholarship Programs

Martin Scholars. The Martin Scholars program seeks to foster scholars in the areas of academics, service, and leadership while encouraging a critical awareness of race and diversity as well as promoting reconciliation. Through the Multicultural Programs staff and student leaders, Martin Scholars are equipped with the tools necessary to successfully and efficiently engage in college related activities. Martin Scholars are also connected with faculty mentors for the purpose of establishing healthy lifestyles with respect to opportunities for service, exploring a major or field of study, career goals and personal and/or spiritual growth. Students are encouraged to utilize this knowledge and experiences to promote justice and equity both on campus and beyond.

R.H. Flowers Scholars. The R.H. Flowers program (formally known as the Amigo Peer Mentoring Program) uses peer-mentoring relationships as a resource and opportunity for promoting growth. R.H. Flowers Scholars are paired with upper class students who serve as a source of both support and connection during the transition from high school to college. Through the structured curriculum, students are able to reflect on a variety of issues related to race, ethnicity and culture which effect modern day society. Scholars are then able to identify and facilitate effective strategies to create greater awareness across campus and in the community at large.

Amigo Scholars. The Amigo Scholars Program provide a peer mentorship opportunity for upper class underrepresented students who have received the Amigo Scholarship. The mission of the program is to foster Multicultural Scholars in the areas of academics,

service, and leadership in order to prepare for reconciliation in the church and society.

Leadership Development. Multicultural Programs fosters opportunities to enhance relationships among students, leaders in multicultural student organizations and the overall community. The office provides a Fall and Spring leadership training available to leaders in the multicultural council organizations, as well as inclusivity training for student leaders offered in the Fall and customizable follow up sessions in the Spring semester.

Student organizations supported by Multicultural Programs include: The Multicultural Council, which the office advises, African Student Union, Asian Student Association, Black Student Union, International Student Association/MuKappa, and La Alianza Latina. Our goal is to foster a common knowledge of cultures in the Messiah College community, with the mission of serving the entire student body through efforts at improving campus life for students from underrepresented racial/ethnic populations. We also advise and support the student organization.

Student Activities Board (SAB)

SAB exists to provide a diversity of activities designed to encourage active student engagement on campus and in popular culture, reconciling the relationship between culture and God. With funding from student activities fees, and through the work of student executives and volunteers, SAB regularly hosts concerts, dances, films, variety shows, excursions, and a number of other special activities throughout the year.

Student Government

Students also have many opportunities to develop leadership skills on campus. The Student Government Association (SGA) has a strong history and tradition of representing the student body and developing the leadership of students. Students annually elect Student Government officers. The SGA President's Cabinet, Student Senate, Multi-cultural Council and Peer Review Board communicate student needs to College leaders and are active participants in College governance.

SGA represents student concerns to the College Administration. Specifically, SGA coordinates student representation to College committees, allocates the student activities fee to student organizations, officially recognizes and charters student organizations and provides the official student representative voice to College administration and faculty. Organized through the Executive Cabinet, Student Senate, Committees and the Peer Review Board, SGA works hard to represent the needs and concerns of all students.

Student Organizations

Messiah College recognizes that students have many interests and abilities. Messiah seeks to facilitate programs and activities which foster personal, academic, social, and spiritual growth, and enhance vocational development. A list of recognized student organizations that exist for the purpose of fulfilling such outcomes in a way that is consistent with the mission and identity of the College is online: www.messiah.edu/info/21478/clubs_and_organizations.

ADMISSIONS

Admissions Policy

Students who desire a higher education to develop their intellect, character, and Christian faith are invited to apply for admission to Messiah College, www.messiah.edu. Informational brochures may be requested from the Admissions Office and are also available online at www.messiah.edu.

The Admissions staff evaluates applications on the basis of each student's preparation for college-level courses, the relative strength of their academic program, standardized test results (Scholastic Aptitude Test [SAT] or American College Test [ACT] scores), the application personal statement, and the program of study desired.

The Admissions staff seeks to admit those applicants who are most likely to benefit from and contribute to the Messiah College community. Once all application documents are received, admission decisions are processed on a rolling or continuous basis (beginning in August). Those students who wish to be considered for the Trustees' and President's Scholarships and entrance to the College Honors Program must be accepted by January 15. Students wishing to be considered for the Martin's Multicultural Scholarship must also be accepted by January 15.

High School Students (U.S. Citizens)

Students completing a course of study at a public or private high school in the United States should follow the steps listed below.

1. Complete and submit the online application for Messiah College admissions. The application fee is \$50. The application fee is waived for all who apply before November 15. You may complete our application online at www.messiah.edu.
2. Request that an official report of your high school transcript and your scores on the SAT or ACT be sent to the Admissions Office. If you have not yet taken either of these examinations, your high school guidance counselor can provide you with information concerning registration procedures, test dates, and locations. Be sure to have your scores sent to Messiah College. Official transcripts can be submitted electronically by guidance counselors via Parchment, a secured site or via the U.S. Postal Service.

Applicants must have graduated from an accredited senior high school or the equivalent (homeschooled students please refer to the next section). Course units from grades nine through twelve should include the following:

- 4 units in academic English
- at least 2 units (preferably 3 or more) in academic mathematics
- at least 2 units (preferably 3 or more) in academic natural science
- 2 or more units in academic social studies
- 2 or more units in foreign language (preferred)
- 4 units in additional electives.

The academic requirements for admission listed above are minimum requirements. Students applying for admission to Messiah College are encouraged to enroll in as many academic and college preparatory courses as their high school schedule will allow. Most students who apply exceed the requirements as listed.

3. Preregistration Deposits. To accept your offer of admission, submit a \$200 preregistration deposit. The fee (\$200) will be applied to your first semester account. The College's policy regarding deposits follows and is in accordance with the principles of good practice of the National Association of College Admissions Counselors.

 - A student should pay a deposit when confident of his/her decision to attend.
 - Deposits from students should be received by May 1 for the fall semester and December 1 for the spring semester to reserve a place in the student body. Deposits received after the May 1 or December 1 deadlines will be accepted if space is still available. If space is not available, the deposit will be returned and the offer of admission withdrawn/deferred until a later semester. If space is available, the deposit will be accepted and a space will be reserved; however, should the student subsequently cancel his/her enrollment, the deposit is non-refundable.
 - This deposit is refundable to students who cancel their enrollment, provided the Admissions Office is notified by May 1 for the fall semester and by December 1 for the spring semester.
 - Checks should be made payable to Messiah College. Please include the student's name in the check memo area. Deposits may also be submitted online at www.messiah.edu/deposit
 - Students are required to submit an official final high school transcript prior to enrolling to receive financial aid.

Homeschooled Students

Messiah College welcomes applications from homeschooled students. The academic requirements for admission are the same as those listed in the previous section. Along with your completed application and application fee, it is important that you submit a comprehensive transcript of your senior year academic program as well as your courses and course evaluations of the ninth through eleventh grades. Transcripts require the signature of the qualified educator. A cumulative gpa on a 4.0 scale should be calculated. If you have an independent evaluation of your academic progress by a qualified educator, please include that with your transcript. Scores from the SAT or ACT should be sent directly to the Messiah College Admissions Office. See www.messiah.edu/homeschool for more information.

Dual Enrollment

High school seniors, and occasionally juniors, can apply to earn college credit while still being enrolled in high school. Students must submit an Application for Dual Enrollment Study for part-time non-degree study. Students will need to reapply through the Admissions Office if not continually enrolled semester to semester. An official high school transcript, a letter of recommendation for dual enrollment from the guidance counselor and the parent permission form need to be submitted for application file review. Transcripts require the signature of the qualified educator. Students will be charged \$150 per credit with a maximum of seven credits per semester on campus. Students wishing to take more than seven credits may do so at the current part-time student per-credit rate. Course registration will begin after full-time students have completed the course selection process.

Accelerated Students

A number of high schools have accelerated and enriched their programs to the degree that advanced students may be intellectually and emotionally ready for the collegiate experience by the close of their junior year in high school. Messiah College is prepared to admit a limited number of such students annually.

To qualify for accelerated admissions, students must complete a rigorous academic course load to the end of the eleventh grade in an accredited high school. They must rank high on a college entrance test and place in the top 10% of their class in academic achievement. Students must also demonstrate strong personal motivation and maturity. The procedure for accelerated admissions is as follows:

1. The high school administration recommends in writing students for admission on the grounds of social, emotional, and intellectual maturity, as well as on their ability to adjust to the challenge of college-level course work.
2. The applicant's parents must approve in writing the advancement as preferable to the high school senior year program.
3. An interview is required before a decision will be made. Qualified students are admitted as first-year students in full standing. At the completion of the first year, the high school receives a report of the student's college grades.
4. Note: Students cannot qualify for state and federal aid prior to receiving a high school diploma.

Transfer Students

Students who have graduated from high school or earned a GED and completed 12 post-high school credits or more of college-level course work at another institution of higher education at the time of application are considered transfer students and are welcome to apply for the fall or spring semesters. Along with the application, an official academic transcript from the college(s) attended must be sent to the Admissions Office. If a student has completed fewer than 24 post-high school college credits at the time of application, final high school transcripts results are required. If a student has completed fewer than 12 post-high school college credits at the time of application and graduated high school within the last two years, SAT/ACT results are required. Transfer students seeking admission to Messiah College should have a GPA of at least 2.5. Some programs/majors may require a higher GPA for admission.

All transfer students must submit an official final high school transcript prior to enrolling to receive federal or state aid, and all accepted students currently enrolled at another institution must send the Dean of Students Release of Information form within ten days of their acceptance. An official evaluation of transfer credits will be completed by our Registrar's Office staff following the offer of admission. Messiah College carefully evaluates courses taken at other colleges. Credit is granted only for courses in which a student has received a C (2.0) or above. When possible, credits will be applied first to major courses and General Education requirements and then to elective credits.

In most cases, standard or traditional core courses (such as History of Western Civilization, Public Speaking, etc.) are applied toward Messiah's QuEST (General Education) curriculum. Courses taken at an institution which has not been accredited by a regional accrediting association will be reviewed on a case-by-case basis. Please contact the Registrar's Office with specific questions concerning transfer equivalencies. See www.messiah.edu/transfer.

International Students

Messiah College welcomes applications from any student living overseas, including both international students (non-U.S. citizens) and U.S. citizens. Along with the Messiah College application, all non-U.S. citizens applying for an F-1 student visa are required to submit a Statement of Finances to document their financial resources which can be applied toward their educational expenses. International students interested in need-based aid should submit the International Student Scholarship Application. To accept the offer of admission, submit a \$200 preregistration deposit as described in the previous pages.

In order to enter the United States on an F-1 student visa, students will need an I-20 form (Certification of Eligibility for Nonimmigrant [F-1] Student Status). Upon acceptance a student must request the I-20 form via eShipGlobal at study.eshipglobal.com. After documentation of financial resources, Messiah College will send the I-20 form to the student. The student will then need to obtain an F-1 student visa from the United States Embassy in their respective country. International students with access to the internet and email are strongly encouraged to use these methods to communicate with the College. The application form can be found at www.messiah.edu/apply.

Academic English Program (AEP)

The Academic English Program at Messiah College includes credit bearing Messiah College courses and academic English courses designed towards cultural and linguistic adjustment. The Program exists to help non-native English speakers acquire the English skills needed in order to take full-time courses at Messiah College. Only international (non-U.S. citizens) are eligible for the AEP and must have a TOEFL score of 60-79 or IELTS 5.5-6.0. Students who elect to take the SAT instead of the TOEFL will have their evidence-based reading/writing score evaluated. Students must otherwise be academically admissible.

Interviews

Messiah College does not require a personal interview for admission. However, we do strongly recommend an information session if you schedule an individual campus visit. During the information session, we will provide answers to any questions you or your parents may have and present information about the application process. The information session is a good opportunity for us to get to know you and for you to get to know Messiah College better. On occasion, the Admissions Office may require an interview in order to clarify personal or academic issues pertaining to a student's application for admission.

Campus Visits

Prospective students are invited to visit campus throughout the school year and summer. Both larger events and individual visits offer a chance to tour campus, meet admissions staff and gain helpful information. The Admission Office is open Monday through Friday, 8:00 a.m. to 5:00 p.m. and some selected Saturdays. For a full calendar of individual visit days and events, and to schedule your visit, please go to messiah.edu/visit (two weeks' notice preferred). If you have questions regarding a visit, you may contact the Visit Coordinator at visitmessiah@messiah.edu or by calling the Admissions Office at (717) 691-6000 or toll free at 1-800-233-4220.

Advanced Placement Examination

Students may receive college credit through the Advanced Placement (AP) Examination of the College Entrance Examination Board. College credit is typically granted when an advanced placement exam grade of 3, 4, or 5 is received. Granting such credit may reduce the number of semester hours students need for graduation. Official transcripts of AP test results should be sent to the Messiah College Admissions Office. See www.messiah.edu/equivalencies.

International Baccalaureate

Messiah College recognizes the International Baccalaureate and accepts scores of 4 or better on Higher-Level examinations and scores of 5 or better for Subsidiary courses as a basis for course credit and advanced placement.

College-Level Examination Program (CLEP)

Messiah College honors the College-Level Examination Program (CLEP). Credit will be granted for successfully passing courses through examination. Official transcripts of CLEP test results should be sent to the Messiah College Registrar's Office for evaluation. See www.messiah.edu/equivalencies.

MEETING THE COST

Financial Assistance

Students frequently ask, “Can I afford college?” Like any wise investment, an education at a private, Christian college may seem expensive, but it brings definite, lifelong rewards. Because we believe in high-quality Christian education, Messiah College is willing to help deserving students who demonstrate financial need. About nine out of every ten Messiah College students receive some kind of financial aid. Messiah College has realigned Financial Aid and Student Account functions in order to maximize service delivery to students, streamline processes and eliminate redundancies. Student Financial Services (SFS) administers the customer service and counseling driven functions. Financial Aid provides back office leadership and financial aid processing, as well as ensuring that the College complies with Government regulations and institutional policy.

- The Student Financial Services Office is open Monday through Friday, 8:00 a.m. to 5:00p.m.
- The Financial Aid Office is open Monday through Friday 8:30 a.m. to 4:30 p.m.

Both offices are prepared for consultation with students and their parents planning to finance a college education. Messiah College offers merit-based academic scholarship programs, grants and scholarships based on a combination of merit and need, and tuition discounts. Assistance is also available through federal, state, and private funds administered by the College in the form of grants, loans, and work study.

Financial Aid Procedures

Applying for Financial Aid

If you have questions about financing a college education, you should discuss the availability of state, federal, institutional, and community scholarships, grants, loans, and work-study programs with your high school guidance counselor and/or a representative from the College.

To determine your financial need, complete the Free Application for Federal Student Aid (FAFSA). The FAFSA is a confidential statement of income and assets for both students and parents. The information is analyzed to compare the financial strength of the applicant to that of other students with similar circumstances in terms of income, assets, size of family, number of family members in post-secondary education, age of parents, etc. While the goal of this process is to use a standardized system in order to make the expectations for the family contribution as equitable as possible for each student, applicants should understand that the Expected Family Contribution (EFC) is not a true calculation of the family’s ability to pay the educational expenses. Instead, the EFC is a gauge used to compare and rank each applicant against all others. As such, the EFC, despite its name, should not be considered the exact amount you will be expected to pay. Each applicant may actually pay more or less than their EFC. The following equation is used to determine a student’s financial need:

$$\begin{aligned} & \text{Cost of College Education} \\ & - \text{Expected Family Contribution (Determined by FAFSA)} \\ & = \text{Financial Need} \end{aligned}$$

The FAFSA is available to you on the Web at www.fafsa.gov. A very limited number of paper applications are available at high school guidance offices and at the Messiah College Financial Aid Office. Almost all students complete the FAFSA on the Web. It is used to determine your need for the full range of federal grant, loan, and work study programs, as well as state grants (including Pennsylvania) and Messiah College need-based financial aid.

If you are granted admission to Messiah College and you have unusual circumstances that you would like to discuss, please write, call, or email the Financial Office to explain your circumstances. Submit your application early. High school seniors should apply for financial aid beginning in October of their senior year.

Financial Aid Package

After your financial need is determined, the College Financial Aid Office can begin to put together a financial aid “package.” Each student’s financial situation is different, so each financial aid package is unique. A financial aid package includes one or more types of financial aid. The most common types of aid include scholarships, grants, tuition discounts, loans, and work-study programs.

Almost all financial aid programs, including those administered by Messiah College, require you to apply each year. The FAFSA should be mailed, or transmitted if filing on-line at www.fafsa.gov, as soon as possible after October 1 so that it will arrive in our office by our priority deadline of April 1. If filing a paper FAFSA, it could take as long as one month for the FAFSA to be processed and to reach our office. If filing on-line, the FAFSA will generally reach us within a few days, but we recommend applying as early as possible to allow for any problems that might occur.

If you qualify for financial aid from Messiah College, you will be notified by way of a financial aid award letter. This award letter is prepared during the fall or spring prior to the academic year for which you are applying for financial aid (the date of your award letter depends on when you complete your financial aid application). The award letter is presented on line via your MCSquare account.

Financial Aid Eligibility Guidelines

1. Applications received on or before April 1 are given first consideration. After April 1, applications are processed in chronological order if, and as long as, funds are available.
2. Institutional scholarships and awards are made with the understanding that you will be carrying a full academic load (12 or more credit hours). Several of the government aid programs require you to be enrolled at least half-time (6 or more credit hours).
3. Institutional financial aid programs are available for a maximum of eight semesters and are not available to students who have already received a bachelor’s degree from any institution.
4. Messiah College students will be allowed to take one semester of institutional aid to approved off-campus programs. (See Off-Campus and Study Abroad Learning Opportunities.)
5. Students who fail to meet the requirements as outlined in the College’s statement of Satisfactory Academic Progress (www.messiah.edu/info/21385/policies_and_resources choose appropriate year) will be considered ineligible for financial aid. Some institutional scholarships have additional grade-point-average eligibility requirements.
6. While receiving aid, you are expected to maintain a high standard of citizenship both on the campus and in the community.
7. The Financial Aid Committee reserves the right to revise your award package at any time. Renewal of financial assistance is dependent upon your academic progress and continued evidence of financial need. Your eligibility for need-based institutional aid will be recalculated each year and your award is subject to adjustment each year.

8. Each year, the Financial Aid Office publishes a webpage entitled Financial Aid Policies This information contains many more details about financial aid policies and procedures than can be included in this *College Catalog*, and contains updates, which occur between publications of the catalog. The combination of these publications should give each student the opportunity to be well informed about the financial aid policies, which affect them. This information is available on the Financial Aid Office webpage at www.messiah.edu/info/21385/policies_and_resources - choose appropriate year.

Financial Aid Appeals

Students who fail to achieve satisfactory academic progress and lose eligibility for financial aid may appeal to the Financial Aid Office. The appeal must include an explanation of why minimum academic requirements were not met, why an exception is warranted and a description of what has changed that will allow the student to achieve Satisfactory Academic Progress status.

Financial Aid Possibilities

Unless otherwise indicated, financial aid applies to the 2017-2018 academic year and is subject to change.

Federal Grants

- **Federal Pell Grants** range in amount from \$606 to \$5,920 and are awarded to students with an EFC between 0 and 5328 (as of the 2017-2018 academic year).
- **Federal Supplemental Educational Opportunity Grants (SEOG)** are awarded with first priority to students who are also recipients of the Federal Pell Grant. Amounts range from \$100 to \$4,000 per year, although \$1,000 is the most common amount.

Pennsylvania State Grants awarded by the Pennsylvania Higher Education Assistance Agency to residents of Pennsylvania. Grants may range from \$500 to \$4,318 per academic year (estimated for 2017-2018 academic year - final State budget for 2017-2018 not determined as of publication).

State Grants from states which allow funds to leave their state, such as Connecticut, Delaware, Massachusetts, Michigan (merit award), Ohio, Rhode Island, Vermont, West Virginia, and the District of Columbia. The amount varies from state to state. Note: Many states are moving toward termination of state grant reciprocity (allowing their state grant to go to other states). Messiah College cannot guarantee on-going availability of grants from the states mentioned above.

Scholarships for Students Entering in Academic Year 2017-2018

Trustees' Scholarships: Five Messiah College full-tuition Trustees' Scholarships are awarded each year to entering freshmen. The amount of the award is frozen at the first-year tuition amount. Trustee's Scholarship candidates are selected by a scholarship committee from the pool of freshmen applicants who have been accepted prior to January 15. Trustees' Scholarship candidates are required to visit campus for an interview with the scholarship committee on selected days during November, January and February. Interview candidates for the Trustees' Scholarships are selected and are notified beginning in the fall. Trustees' candidates must have a 3.9 GPA or higher and achieve a composite SAT score of at least 1360 OR an ACT composite score of 29 or higher. Trustees' Scholarships are available to the student for all four years at Messiah College, provided the student maintains a 3.3 (B+) cumulative grade point

average for the first academic year and a 3.6 (A) cumulative grade point average over two consecutive semesters of each succeeding academic year.

President's Scholarships: About 70 Messiah College President's Scholarships are awarded each academic year to entering freshmen. Recipients of President's Scholarships are selected by a scholarship committee from the pool of freshmen who meet the eligibility requirements for the Trustees' Scholarship (with the eligibility requirements listed above). Each student selected for this award receive a \$5,000 President's Scholarship that is combined with the Provost's Scholarship which is awarded upon acceptance. Recipients of the President's Scholarship participate in the College Honors Program. President's Scholarships are available to the student all four years at Messiah College, provided the student maintains a 3.2 (B+) cumulative grade point average for the first academic year and a 3.4 cumulative grade point average for each succeeding academic year.

Faculty Scholarships: About 30 Messiah College Faculty Scholarships are awarded each academic year to entering freshmen. Recipients of Faculty Scholarships are selected by a scholarship committee from the pool of freshmen who meet the eligibility requirements for the Trustees' Scholarship (with the eligibility requirements listed above). Each student selected for this award receives a \$1,000 Faculty Scholarship that is combined with the Provost's Scholarship, which is awarded upon acceptance. Recipients of the Faculty Scholarship participate in the College Honors Program. Faculty Scholarships are available to the student all four years at Messiah College, provided the student maintains a 3.2 (B+) cumulative grade point average for the first academic year and a 3.4 cumulative grade point average for each succeeding academic year.

Dean's Scholarships for Continuing Students: Fifteen \$1,500 Dean's Scholarships are awarded each academic year to students who have completed at least 30 credit hours at Messiah College and who have achieved a cumulative grade point average of 2.5 (C+) or better. These scholarships are available to students who have distinguished themselves as outstanding leaders in specific activities while attending Messiah College. Students already receiving a President's or Trustees' scholarship are not eligible for a Dean's Scholarship for Continuing Students.

Dean's Scholarships in the Humanities: Each year scholarships are awarded to accomplished, incoming students majoring in any field associated with the School of the Humanities. These include majors in the following departments: Biblical & Religious Studies, Communication, English, History, Modern Languages, Philosophy, and Politics & International Relations, as well as interdisciplinary majors in Ethnic and Area Studies. Students in Digital Media and Sustainability may apply if they intend to concentrate in the humanities component of those interdisciplinary majors. These are renewable for the subsequent three years. For application instructions and due dates, visit www.messiah.edu/info/20207/school_of_the_humanities/1264/humanities_scholars_program.

Provost's Scholarships: Messiah College Provost's Scholarships are awarded to entering freshmen using the academic information available from the student's academic records submitted along with the application for admission.

- The amounts of these scholarships range from \$12,000 to \$14,500 each year. There is no application form. Provost's Scholarships are renewed each year as long as the student maintains a grade point average of 2.8 for the first academic

year and 3.0 over the two consecutive semesters of each succeeding academic year.

- Submission of new academic information to increase the amount of a Provost's Scholarship for the upcoming fall semester is permitted up to March 1. Thereafter, the award will remain the same regardless of changes in the student's academic standing.

Provost's Scholarships for Continuing Students: Up to twenty \$2,000 Provost's Scholarships for Continuing Students are awarded each year to full-time students who have completed at least 30 credit hours at Messiah College and who have achieved the Dean's List at Messiah College for two consecutive semesters (fall and spring).

Messiah College Grants are awarded to students based on need and/or academic ability. The amounts of these grants typically range between \$100 and \$12,000 each year.

• **The Martin Multicultural Scholarship Program:** Messiah College awards a number of scholarships under the Lloyd and Lois Martin Multicultural Scholarship Program. About four full tuition and several partial tuition Lloyd and Lois Martin Multicultural Scholarships are awarded to entering first-year students and select transfer students who, in addition to achieving excellence in scholarship and service, ministry, or leadership involvement in their school, church, or community, have demonstrated a commitment to promoting racial/ethnic diversity and reconciliation.

- To be eligible for consideration, an applicant must have a 3.5 GPA or higher and achieve a composite SAT score of at least 1200 OR an ACT composite score of 24 or higher; have shown significant leadership, service, or ministry involvement in his or her high school, church, or local community; and a record of promoting racial/ethnic diversity and reconciliation.
- Students who would like to be considered for the scholarship must apply and be offered admission to Messiah College as well as submit the official Martin Multicultural Scholarship application before January 15. From this pool, students will be invited to visit campus to be part of an interview process on a day established by Messiah College.
- The scholarships are awarded only once each year and begin in the fall semester. Lloyd and Lois Martin Multicultural Scholarships are renewable for each of four years at Messiah College as long as the recipient maintains a 2.5 grade point average their first year, 3.0 every subsequent year, and a continuing leadership, service, or ministry role at Messiah College which aids in the promotion of racial diversity.
- Students interviewing for the Lloyd and Lois Martin Multicultural Scholarships are also considered for several partial tuition R. H. Flowers Scholarships. R. H. Flowers Scholarships are renewable for each of the four years at Messiah College as long as the recipient maintains a 2.5 grade point average their first year, 3.0 every subsequent year, and participates in the R. H. Flowers Mentoring Program.
- More information about the Martin Multicultural Scholarship can be found at:
www.messiah.edu/info/21314/financial_aid_for_undergraduate_programs/2368/the_lloyd_and_lois_martin_multicultural_scholarship.
- **National Merit Scholarships** of \$1,000–\$2,000 per academic year (depending on need) are awarded to incoming freshmen who are National Merit Finalists. These awards are automatically renewable each year.
- **Daniel Vollmer Scholarships** in the arts are awarded on the basis of talent in music, art, theatre or dance. In the Department of

Music, the award is based on the audition for acceptance to the department. For art, the award is based on a portfolio that must be presented to the department. In theatre and dance, the award depends on previous acting or dance experience and a written statement. Please contact these respective departments for information about audition dates, submission dates, and any other requirements for application. Each student selected for this award receives a \$5,000 scholarship that is combined with the Provost's Scholarship, which is awarded upon acceptance. The awards are renewable each year provided students exhibit satisfactory academic progress in their area of study and meet any other requirements for the continuation of the award as defined by the respective department.

- **Shaffer-Goodling Scholarships in the Arts** recipients are selected from the same pool of applicants for the Vollmer Scholarships. Each student selected for this award receives a \$2,500 scholarship that is combined with the Provost's Scholarship, which is awarded upon acceptance. The Shaffer-Goodling Scholarships are renewable based on maintaining a 2.8 GPA for two consecutive semesters of an academic year and continuing satisfactory contribution to that area of the arts as determined by the academic department.
- **Dean's Scholarships** in the arts recipients are selected from the same pool of applicants for the Vollmer Scholarships. Each student selected for this award receives a \$1,000 scholarship that is combined with the Provost's Scholarship, which is awarded upon acceptance. The Dean's Scholarships are renewable based on maintaining a 2.8 GPA for two consecutive semesters of an academic year and continuing satisfactory contribution to that area of the arts as determined by the academic department.
- **Music Scholarships** are awarded by the Messiah College Department of Music each year in memory of Earl and Christine Miller and Keith Kuhlman. Others are made possible by Ronald and Beth Sider. Contact the Chair of the Messiah College Department of Music for application forms and more information.
- **Covenant Grants** of \$500 per academic year are available for students from churches participating in the Covenant Grant program. Travel allowances, ranging in amounts of \$75 to \$300, are available to non-Pennsylvania residents who qualify for these scholarships. The church sponsoring the student's application must be the student's home church, in the area the student lived before coming to Messiah College, not a church the student has only attended while a student at Messiah College. Currently, only Brethren in Christ churches participate.

Transfer students may receive the following awards:

- **Provost's Scholarships** ranging from \$11,000 to \$13,000 are awarded to transfer students with a minimum cumulative college grade point average of 3.0. Students may submit new/updated academic information up to June 15 to be considered for an increase in their award amount.
- **Phi Theta Kappa Scholarships** (\$1,000) are awarded to transfer students who provide proof of membership in Phi Theta Kappa and are in good standing. This scholarship is renewable.

Aid for International Students

- Grants under the **International Aid** program are awarded to full-time international students who demonstrate financial need as determined by the College. Amounts typically range from \$1,000 to \$15,000.
- The **International Daystar Grant** is awarded to visiting students from Daystar University in Nairobi, Kenya. This grant covers full tuition.

- The *International Covenant Grant* is awarded to international students who are members or regular attenders of Brethren in Christ congregations and other denominations or churches that participate in the Covenant Grant Program. This grant can be up to full tuition. The church sponsoring the student's application must be the student's home church, in the area the student lived before coming to Messiah College, not a church the student has only attended while a student at Messiah College.
- The *International Brethren Colleges Abroad Grant* is awarded to international students who are visiting Messiah College under the Brethren Colleges Abroad program. This grant can be up to full tuition and fees.

Student Loans

- *The Federal Perkins Loan* is interest-free until nine months following termination of studies. Thereafter, 5% per annum. (Note: This program is scheduled to end on Sept. 30, 2017 and likely will not be available to students entering in the 2018-19 academic year and beyond.)
- *Nursing Student Loan* is interest-free until nine months following termination of studies. Thereafter, 5% per annum.
- *Federal Stafford Loans:* There is a subsidized version, which is interest-free until six months following termination of studies, and an unsubsidized version, which requires payment or capitalization of interest while enrolled. As of July 1, 2017, the interest is a fixed rate of 4.45% for both the subsidized and unsubsidized versions for undergraduate students. Graduate students are eligible only for the unsubsidized version, for which the interest rate is 6.00%.
- *The Federal PLUS Loan:* As of July 1, 2017, the interest is a fixed rate of 7.00%. Repayment begins within 60 days of second disbursement.

Tuition Discounts. Each of these requires an application to be filed; some require the application to be filed by a stated deadline.

- *Mature Student Discount* on tuition of 25% for a student 30 years and older.
- *Dual Enrollment Student Discount* on tuition. Cost per credit hour is \$150, with a maximum of seven credits per semester for approved high school seniors (and the occasional junior).

Student Employment

Federal Work-Study Program (based on need) or *Institutional Work Program*. Part time (an average of 10 hours per week) during the school year and full time (40 hours per week) during summer vacation. Other options include employment in the immediate College community (it is the student's responsibility to find this employment) or paid internships and cooperative education (on a very limited basis).

Other Sources of Aid

- *Veterans Administration Educational Benefits:* Contact your local Veterans Administration Office for more information, and please visit www.messiah.edu/info/21769/va_benefits for more information on the variety of benefits available for our Veterans, Military members, and their families.
- *Grants and loans from businesses and corporations* to students whose parents they employ. Your parents should contact their Personnel Office for more information.
- *Scholarships and grants awarded by community, civic, and service organizations:* Contact your local high school and specific local service organizations for more information.

Unless otherwise indicated, the above financial aid information applies to the 2017-2018 academic year and is subject to change.

Schedule of Semester Fees and Refund Policy

Schedule of Semester Fees (2017 - 2018 academic year)

Tuition (12–18 semester hours)	\$16,660
Less than 12 hours (per credit hour)	\$1,390
More than 18 hours (per credit hour)	\$640
Audited courses (per credit hour)	\$500
Summer 2017 on-line courses (per credit hour)	\$505
Summer 2018 on-line courses (per credit hour)	TBD
Student Activity Fee (12-18 credits)	\$125
Less than 12 credits (per credit hour)	\$11
Student Service Fee (12-18 credits)	\$295
Less than 12 credits (per credit hour)	\$25

Board: \$2,405

The Dining Dollars meal plan rate of \$2,335 consists of the following components:

Dining Services Operations Charge	\$1,440
Declining balance Dining Dollars account	\$965

The operations charge covers the primary operational costs associated with the five dining venues. The declining balance account is the funds available for purchase of food in each of the dining venues. A 52% discount applied in Lottie Nelson Dining Hall. A 30% discount applied for all other campus restaurants. No discount applied for vending (maximum of \$50 Dining Dollars may be used per semester). Additional funds can be added to Dining Dollars fund, without incurring additional Dining Service Operations charges.

The A la Carte meal plans are designed for students who are living in campus apartments, satellite housing, are off-campus or commuting.

Gold: includes a \$50 signing bonus	\$1,000
Silver: includes a \$35 signing bonus	\$750
Bronze: includes a \$25 signing bonus	\$500
*Meal Plan Change Fee (after deadline)	\$50

Room:

Traditional Residence Halls (Bittner, Grantham, Hess, Miller, Mountain View, Naugle, Sollenberger and Witmer)

Single	\$2,910
Double	\$2,705
Triple	\$2,145
Supplemental Triple	\$1,965
Quad	\$2,265
Quintet	\$2,145

Apartments (Upperclass only: Fry, Kelly, Mellinger, and Smith)	
Three-person apartment	\$2,785
Five-person apartment	\$2,705
Satellite housing	
Bertram, East Street, Forman, Melhorn, Rafiki, Woodland houses and Dewberry Street	\$2,785
*Lost room key fee (non-refundable)	\$75
Special Fees (2017-2018 academic year)	
Application for Admission (nonrefundable)	\$50
Course Fees*	
ADED 139 (varies by destination/travel expenses)	\$1,300
ADED 180	\$145
ADED 251	\$700
ADED 281, 282, 286	\$150
ADED 401	\$500
APHS 301 lab fee	\$65
ART Studio fee. Applies to each of the following:	\$35
ART 103, 110, 112, 136, 161, 172, 211, 215, 220, 221, 224, 232, 237, 251, 262, 263, 282, 308, 312, 315, 320, 330, 334, 337, 338, 352, 371, 414	
BIOL lab (per laboratory course)	\$65
BIOL 161, 162, 356, 358 (inclusive of lab fee)	\$110
BIOL 269, 290 (varies by destination/travel expenses)	TBA
CHEM lab (per laboratory course)	\$65
CHIN 260 (varies by destination/travel expenses)	TBA
CHRM 210, 220, 493	\$50
COMM 203, 320, 363, 374, 380, 420	\$50
COMM 220	\$200
ECON 260 (varies by destination/travel expenses)	TBA
Engineering laboratory fee. Applies to each of the following:	
ENGR 101, 102, 201, 236, 237, 254, 321, 340, 342, 351, 355, 357, 364, 366, 367, 372, 373, 374, 384 and 452	\$50
Engineering laboratory fee. Applies to each of the following:	
ENGR 288, 388, 488, and 489	\$235
ESS 201 laboratory	\$65
FINA 305	\$75
GIS 245	\$65
HDFS 272, 350, 408	\$10
IDFY First Year Seminar writing handbook fee	\$30
IDFY 101 Food and Culture	\$25
MUAP courses (14 one-half hour lessons/semester)	\$325
NURS* 210, 211, 310, 311, 312, 313, 410, 411, 412, 413	*\$235
NUTR lab fee per laboratory course. (NUTR 110, 121, 331, 341, 410, 412, 425, 426)	\$65
PHSC 102 lab fee	\$65
PHYS 180, 201, 202, 211, 212, 251 lab fee	\$65
MUAP courses, private lesson fee (14 one-half hour lessons per semester)	\$325
PSYC 272, 350, 408	\$10
PSYC 409	\$30
RELI 329	\$10
SUST 140	\$65
TEP 431, 432, 433, 434, 435, 438 LFS	\$75
TEP 439	\$225
THEA 362	TBA
WELL 115 and WELL 116	TBA
Credit by examination, per credit hour (nonrefundable)	\$100
Drop/Add	\$25
Health insurance (per academic year, nonrefundable)	\$1,616
ID replacement (nonrefundable)	\$5-20

Late payment	\$100
Late registration, per course, (nonrefundable)	\$50
Lifetime transcript	\$50
Lost post office box key (nonrefundable)	\$25
Parking (per academic year, non-refundable)	
Residential	
Registered by 7/31/17	\$125
Registered after 7/31/17	\$150
Commuter	
Registered by 7/31/17	\$50
Registered after 7/31/17	\$75
Parking permit replacement (nonrefundable)	\$10
Registration deposit for first-time students (refundable through May 1)	\$200
Returned check (nonrefundable)	\$50

*Course and lab fees are not refunded if a student drops a course or withdraws from the institution.

The Student Activity fee covers student admission to athletic events, music activities, and receipt of student publications. Some Student Government Association (SGA) sponsored activities are partially subsidized by the activities fee, providing a reduced admission charge to students. The Student Services fee covers maintenance and special improvements in Information Technology in addition to other services. Some of these areas of maintenance and improvement include (1) speed of internet access, (2) the number of computer ports in several residence halls, and (3) our Information Technology Services in Murray Library and Learning Commons. These fees are not refundable.

Textbooks and supplies are on sale at the Campus Store and Textbook Express. The estimated expense of books and materials is approximately \$800-\$1280 per year. A parking permit is required each year for all students with cars on campus, and a fee is charged.

Student Medical Insurance: All full time students are billed an annual premium for medical insurance. The period of coverage begins on August 1 of the current year and is in effect for 12 months ending July 31 of the subsequent year. The student can have this charge reversed by completing an on-line insurance waiver by the end of August. By completing the waiver, the student certifies that he/she has other medical coverage. Students who have not completed the waiver by the end of August will receive an urgent email from Messiah College's insurance broker informing them of the waiver deadline. Students who have insurance charges on their account after the deadline have the right to appeal the charge to Student Financial Services. The appeal must be made before the first Friday in September for fall charges or the first Friday in February for spring charges. If the late waiver is granted, the student will be charged a \$50 administrative fee.

Billing Procedures

1. Student billing is electronic. Students are contacted via their Messiah email account with instructions regarding how to access the Ebill.
2. Fall tuition bills are available early to mid-July, spring tuition bills are available early to mid-November, and summer bills are available early May.
3. Ebills are based on course registration and financial aid information at the time of release. Ebills are released weekly detailing updated adjustments. Financial Aid is not credited until completion of all requirements and approval by the awarding agency.

- The tuition, course specific fees, student activity fee, student services fee, and room and board charges for the spring semester include January term, spring term and May term.
- Miscellaneous fees and fines are included in the Ebill if appropriate from various campus departments (e.g.: Engle Center, parking tickets, library fines, etc.)

E-Billing and E-Payment: Messiah College partners with CASHNet to provide paperless billing and secure online payment options. Students will be contacted via their Messiah College email account to access their tuition bill online. Students also have the ability to sign up parents or other authorized parties to view and/or pay their bill, and deposit money into their Falcon Dollars or Dining Dollars accounts. Our payment options include online check, credit card, or traditional mail-in check. Payments made through CASHNet are instantaneously recorded onto the student's Messiah College account. Check and cash payments are accepted at the Falcon Exchange, located on the second floor of the Eisenhower Campus Center.

Site Access to E-Billing and E-Payment

Current students access the site by logging into MCSquare, opening "Self Service Banner" and choosing "Student Accounts" under the "Student" tab. The link to the Messiah/CASHNet e-bill site enables students to:

- View their account/bill(s) and make a payment
- View their recent payments (made via the site)
- Assign parent and other authorized users access to the e-bill and on-line payment capabilities
- Set up saved payment methods for frequent use.

Students may also access the e-bill site through a Quicklink on the "Home" tab of MC-Square.

Parents or Other Authorized Parties: Parents and Other Authorized Parties cannot access the site until the student has established their access. Once a log in has been assigned, the parent/authorized user will receive an email to set up the password. This site can be accessed at the following web address: <https://commerce.cashnet.com/messiahpay>

Payment Options

e-Check/ACH: We recommend the e-Check/ACH method. This method is free and very secure. Users will need to enter their bank's routing number, checking/savings account number, and personal information. Please note that Messiah College will NOT automatically draft money from a payer's account. All transactions must be initiated by the account holder. Transactions are normally posted to the users account instantaneously. Note: We cannot accept credit card cash advance checks, brokerage account checks, or any check marked "Do Not Use for ACH." A \$50.00 fee will be charged for any e-Check/ACH returned for insufficient funds.

Credit Card: We accept Visa, MasterCard, American Express, and Discover. Payments by credit card require the user to pay the processing fee of 2.75% payable to CASHNet.

Paper Check: We accept the traditional method of mailing a check or personal payments made in person at the Falcon Exchange counter on the 2nd floor of the Eisenhower Campus Center. All paper checks are required to have the student's ID number in the memo line. Checks should be made payable to Messiah College and mailed to: **Messiah College, One College Avenue, Suite 4516, Mechanicsburg, PA 17055**

Payment Policies: There are two options for making financial payments to the College for fall and spring semesters:

- The **Semester Plan** requires payment of the entire balance due for the semester on August 11, 2017 for the fall semester, and December 15, 2017 for the spring semester. Payments can be made on the CASHNet eBill site and are posted to the student account instantaneously, or you can mail a check to Messiah College, One College Avenue, Suite 4516, Mechanicsburg, PA 17055.
- Tuition Management Systems (TMS) monthly "Semester Only" payment plans. There is a \$35/semester set up fee. Contact TMS at 1-800-722-4867 or <https://messiah.afford.com/>.

Fall Semester:

- 5 month payment plan with payments beginning June 20 and ending October 20, or
- 4 month payment plan with payments beginning July 20 and ending October 20.

Spring Semester

- 5 month payment plan with payments beginning November 20 and ending March 20, or
- 4 month payment plan with payments beginning December 20 and ending March 20.

In both plans, any **approved but uncredited** financial aid (e.g., student loans, scholarships and grants) may be taken into account in computing the payment amount, provided that the relevant information is clearly communicated to the Student Financial Services along with the payment. **Any outstanding balance carried beyond the due date is subject to a late payment fee of \$100 in addition to a finance charge of 1.25% per month.**

Full payment is required prior to the first day of class for summer sessions, independent study courses, and directed study courses.

Tuition Protection Insurance

Tuition protection insurance is available through GradGuard™. This optional coverage encompasses and expands upon Messiah College's refund policy by ensuring reimbursement for tuition, housing, and other payments if a withdrawal occurs for any covered medical reason at any time during the semester. Details are available at www.GradGuard.com/tuition/messiah

Registration, Diploma and Transcript Hold Policy

- Diplomas and transcripts will not be released for students with balances greater than \$25.00
- Course registration, housing and parking sign-ups are prevented for students with balances of \$100.00 or more.
- Conditional registration may be permitted for students with balances between \$101.00 and \$1,000.00 after consultation with Student Financial Services counselor, written acknowledgement of the debt and payment plan details, and a good faith payment.
- The student's account must be paid in full before registration for the student's final semester.
- Deviations from policy must be approved in advance by the Director of Student Financial Services or appointee.

Undergraduate Tuition and Fee Refund Policy/Return of Title IV Funds. Refunds for undergraduate students who completely withdraw from Messiah College voluntarily or otherwise are determined according to the following policy:

- The portion of tuition and residence charges to be refunded to withdrawing students during the fall or spring semester will be as follows:

Week 1	100%
Week 2	75%
Week 3	60%
Week 4	50%
Week 5	25%

2. For refund calculation purposes, spring semester starts on the first day of J-term. Students who withdraw from the College during J-term are considered part-time students for the purpose of calculating refunds. As such, no J-term refunds are issued after the third day of J-term classes.
3. Student Activity, Student Services, Course and Lab fees are not refunded if a student drops a course or withdraws from the institution. Nursing course related fees are not refunded unless the major is dropped prior to the first day of class.
4. Students who withdraw from the College after the completion of the fifth week of classes during fall or spring semester will not receive a refund of tuition or residence fees.
5. Dining Dollars Refund Policy can be found online at www.messiah.edu/studentmealplan
 - Medical Withdrawals: Students will be charged for dining dollars consumed and a pro-rated portion of the operations fee. The proration will follow the tuition and housing proration schedule listed in #1 above.
6. Unused Meal Plan Refund Policy: Students are to notify Dining Services prior to the semester start if they have been assigned and charged for a meal plan that they do not wish to have. The policy parameters listed below are inclusive only of those meal plans that have not been used or ratified.
 - After 8 weeks, a 50% refund is given for unused meal plans.
 - After 12 weeks, refunds are not granted for unused meal plans.
7. Spring semester room charges will be adjusted only for students enrolled in credit-earning, off-campus activities during January or May terms. Adjustments will be uniformly applied to all campus housing charges. Housing charges will be adjusted for students participating in directed and independent studies only if there is an academic requirement that necessitates living off-campus. Housing charges will not be adjusted for students who attend classes, or who are otherwise on-campus during both January and May terms.
8. There are no refunds for enrolled students vacating a room after the start of the semester.
9. There are no refunds for incomplete courses, independent study, directed study, internship/practical and online courses.
10. Refunds and adjusted bills will be sent to the student's home address following withdrawal.
11. In accordance with federal regulations, when federal financial aid (Title IV) refunds are involved, the amounts are allocated in the following order: Unsubsidized Federal Direct Loan, Subsidized Federal Direct Loan, Federal Perkins Loan, Federal Direct PLUS Loan, Federal Pell Grant, Federal Supplemental Educational Opportunity Grants (SEOG), TEACH Grant, IRAQ and Afghanistan Service Grant, and other Title IV aid programs.
12. The term "Title IV Funds" refers to the federal financial aid programs authorized under the Higher Education Act of 1965 (as amended) and includes the following programs: Unsubsidized Federal Direct Stafford Loans, Subsidized Federal Direct Stafford Loans, Federal Perkins Loans, Federal Direct PLUS Loans, Federal Pell Grants, Federal SEOG, TEACH Grants, IRAQ and Afghanistan Service Grants.

13. Institutional and student responsibilities in regard to the Return of Title IV Funds:

Messiah College's Responsibility:

 - Providing each student with the information given in this policy.
 - Identifying students who are affected by the policy and completing the Return of Title IV Funds calculation for those students.
 - Returning any Title IV funds that are due the Title IV programs.

Student's Responsibility:

 - Returning to the Title IV programs any funds that were disbursed directly to the student and which the student was determined to be ineligible via the Return of Title IV Funds calculation.
14. Institutional financial aid will be refunded according to #1 above.
15. Dropped course fees follow the dates published on messiah.edu/registrar. Students must be full time (12+ credits/semester) through the "LAST DAY TO DROP A COURSE" in order to be eligible for financial aid.

Medical Leave Refunds

 - Refunds for tuition and residence charges as well as financial aid will be calculated based upon the date of the medical paperwork and the following schedule: Week 1 = 100%, Week 2 = 75%, Week 3 = 60%, Week 4 = 50%, Week 5 = 25%.
 - Meal Plans are charged based on meals consumed and a pro-rated portion of the operations fee. The pro-ration will follow the schedule above.
 - Student Activity, Student Services, Applied Music, lab, nursing, course-related and all other fees are non-refundable.
 - Title IV funds (Unsubsidized Federal Direct Loans, Subsidized Federal Direct Loans, Federal Perkins Loans, Federal Direct PLUS Loans, Federal Pell Grants, Federal Supplemental Educational Opportunity Grants (SEOG), TEACH Grants, IRAQ and Afghanistan Service Grant) are refunded in accordance with federal regulations in the order above before the 60% point of the semester. Exception: Before 60% of the semester SEOG is pro-rated based on 75% of the amount disbursed, per federal rules.
 - Students who withdraw after January term, but before the first day of spring term will be treated as part-time students for refund purposes.
 - Students who are granted medical leave during spring term (not including J-Term) will receive refunds based upon the schedule included in the official institutional refund policy, with the first week beginning on the first day of spring term.
 - Any new, transfer or returning student who paid a deposit for their second semester will have their non-credited deposit refunded.
16. Small student account credit balances of \$5.00 or less, if not specifically requested to be refunded within two weeks after the student leaves Messiah, will automatically be cleared and donated to the general scholarship fund.

The fees, procedures, and policies listed above supersede those published previously and are subject to change at any time.

ACADEMIC DEFINITIONS

Academic Sessions

Semesters. The Messiah College academic program is based on a two-semester calendar. The fall semester begins in late August or early September and extends through part of December. The spring semester begins with the January Term and extends through early May.

January Term (J-term). An integral part of the second semester, J-term gives students an opportunity to concentrate on a single course for three weeks. Transcultural travel programs are among the innovative courses offered. Students may also enroll in an approved J-term at another institution. The academic load for the spring semester is the sum of courses taken during J-term and Spring term. Therefore, students normally earn three or four credits in January and 12 or 13 credits during the Spring term, for a total of 15 to 17 credits in the second semester.

While all students are expected to register for a course during J-term each year, first year students and sophomores are required to do so. Since J-term and Spring term together compose the second semester, all fees are applied accordingly. No discounts for tuition or room and board are given to students who do not enroll for a J-term course.

May Term. May Term is a three-week term immediately following Spring term and is reserved exclusively for cross-cultural studies courses. Since May Term is considered a part of the Spring Semester, students are charged additional tuition at the overload rate only for each credit above the 18 credits allowed for the second semester. Students interested in courses other than cross-cultural studies should enroll in the Summer Session.

Summer Session. Undergraduate online courses, taught by Messiah College faculty with special training in online instruction, cost less than courses taught during the traditional academic year. Course credit from summer online courses applies toward the Messiah College degree for current Messiah College students and may fulfill General Education or major requirements.

In addition to General Education courses, a variety of independent/directed studies are available to Messiah College students during the summer months. Internships offer students an opportunity to combine full-time employment with academic components to receive credit.

Bachelor of Arts (B.A.) Degree conferred for completion of a program with focus on broad and liberal education in the humanities, arts, social sciences, and sciences. Curricula leading to the B.A. emphasize ways of knowing and approaches to understanding consistent with the liberal arts. B.A. requirements typically promote broad preparation within the discipline and among related fields.

Bachelor of Science (B.S.) degree conferred for completion of a program with focus on in-depth education in the sciences, social sciences, or professional fields. Curricula leading to the B.S. emphasize ways of knowing and approaches to understanding consistent with the sciences and/or professional or pre-professional preparation. B.S. requirements typically promote depth of preparation within a discipline and/or related disciplines.

Classification of Students. The following guidelines are used to determine class level:

- First Year—satisfaction of entrance requirements;
- Sophomore—24 earned credits completed;
- Junior—57 earned credits completed;
- Senior—87 earned credits completed.

Full-Time Status. Degree-seeking students who carry an academic load of 12 or more credit hours are considered full-time students, charged at the full-time student rate, and eligible for financial aid as full-time students.

Part-Time Status. Students who carry an academic load of less than 12 credit hours are considered part-time students, charged at the part-time student rate per credit hour, and eligible for any financial aid open to part-time students.

Students admitted for limited or special programs designed to meet their particular needs but not leading to graduation are considered non-matriculated, unclassified, or visiting students, depending on the nature of their program.

Concentration. A prescribed set of courses in a sub-discipline of a major or closely related discipline consisting of a minimum of 12 and a maximum of 36 credits. Students may complete the requirements for more than one concentration. All completed concentrations will be noted in the student's transcript. See department listings for requirements.

Course Coding. The courses listed in the College Catalog are coded as follows:

- Courses numbered 100 to 299 are rated as lower division courses.
- Courses numbered 300 to 499 are rated as upper division courses and are generally restricted to juniors and seniors.
- The credit value of each course appears parenthetically following the course title in the course descriptions. The unit of credit is the semester hour.

Credit Hour. A credit hour is a unit of academic work consisting of 50 minutes of instructional time, or two or three such periods of laboratory work per week, throughout the standard 15-week semester. In addition to the in-class work, the student is expected to spend at least two hours outside of class. For terms other than the standard 15-week semester, an equivalent amount of instructional time is required.

Emphasis. A prescribed set of courses in a subdiscipline of a major or closely related discipline consisting of a minimum of 12 credits of requirements. Emphases will not be noted in the student's record or transcript. See department listings for requirements.

Independent Study. Independent study is available to students who wish to explore a particular area of study outside a classroom setting. Projects must be carefully designed and directed toward a specific goal under the direction of a qualified faculty member who meets regularly with the student during the study.

Individualized Major. The College provides an opportunity for qualified students to pursue an individualized major. A student with earned credits between 30 and 72 and who has a cumulative grade point average of 3.00 or higher, is eligible to apply. The application process requires the student, with the assistance of a primary and

secondary academic advisor, to produce a detailed proposal for consideration. Contact the Registrar for additional information.

Major. A prescribed set of courses and other requirements recommended by the department and approved by the Community of Educators as a valid representation of the area of study. Generally these courses focus on a specific academic discipline; however, there are some interdisciplinary majors which include work from two or three disciplines. Satisfactory completion of this prescribed set of courses leads to a degree in that area of study.

Minor. A minor is a prescribed set of courses which focuses on a particular academic discipline or area of study. The goal is to allow the student to develop some depth of understanding in that discipline or area of study. A student has the option of declaring a minor during the third semester of attendance or later. Students are not required to complete a minor. To earn a minor, a student must attain a minimum grade point average of 2.0 for the courses listed as meeting requirements for the minor, and at least 12 credits must be unique to the minor. A student may complete more than one minor. At least one third of the course work must be taken at Messiah. More information and the appropriate forms are available through the Office of the Registrar.

ACADEMIC POLICIES and PROCEDURES

Academic Honors

College Honors Program. The College Honors Program exemplifies Messiah College's commitment to promoting academic excellence and fostering an intellectually rigorous Christian worldview, with the goal of equipping young men and women for lives of leadership and service.

The College Honors Program is designed for students who demonstrate high scholarly ability early in their academic career. The program curriculum is composed of general education honors courses and a Senior Honors Project. In addition to the credit-bearing curriculum, students meet outside of the classroom in the Honors Congress to discuss timely issues and interact with special campus guests. Throughout the academic year, students also have opportunities to participate in on- and off-campus academic and cultural activities. Upon graduation students receive special recognition at Commencement, on their diploma, and on their College transcript.

Students from all of the College's applied and liberal arts majors are eligible to participate. Moreover, in keeping with the College's commitment to educating the whole person, students in the College Honors Program are encouraged to participate in the College's many cocurricular opportunities.

The College Honors Program is open to first-year students. The minimum qualifications include a 1360 SAT score (SAT scores prior to March 1, 2016 will be converted to the new SAT scale) or ACT composite of 29 and a ranking in the top 10% of the student's high school class. No special application is required. As part of the regular admission process, students who meet the minimum eligibility requirements are evaluated for the program. From the eligible pool of candidates, students are selected for on-campus interviews. After the on-campus interview and evaluation of all other application materials, approximately 100 students are selected to enter the program in the fall. Most students selected for the College Honors Program receive either full or partial tuition scholarships. See our website for more information: www.messiah.edu/info/20098/college_honors_program.

College Honors Curricular Requirements.

- IDFY 102 First Year Seminar, honors section (First year, Fall)
- IDCR 151 Created and Called for Community, honors section (First year, Spring)
- One honors interdisciplinary QuEST course meeting either Ethics, Pluralism, World Views, Non-Western or Science, Technology, and the World (sophomore or junior year)
- A second interdisciplinary Quest course from a different category, does not need to be an honors section. Depending on the major, this second requirement may be waived. When waivers exist, if the major has one or two waivers for ID courses, the student must take their honors section from the non-waived category. If three ID waivers exist, the student has their choice of which area to take their honors section. Honors ID course credit requirements can only be met at the Mechanicsburg campus or through a Messiah College HONORS J-term/May-term study abroad course.

- Senior Honors project (Junior or senior year). The requirement can be met in one of the following three ways:
 - HONR 498, HONR 499
 - Department Honors or Department Project. The Senior Honors Project may overlap with department honors or a department project, but must meet the parameters for the Senior Honors Project.
 - HONR 497: Senior Honors Seminar.
- Honors Congresses. This is a non-credit bearing requirement. Completion of three semester-long Congresses before graduation. The completion of an Honors Congress requires that a student attend three of the semester's scheduled events. First year students must complete a Congress semester during fall of their freshman year.

Eligibility Requirements for the College Honors Program

Participation in the College Honors Program requires that all participants meet the grade point average (GPA) requirement for either the Trustees', President's or Faculty Scholarship. For President's and Faculty Scholarship recipients, renewal of these scholarships is contingent on maintaining a 3.2 GPA as a first year student and a 3.4 GPA each subsequent year. For Trustees' Scholarship recipients, renewal is contingent on maintaining a 3.3 GPA as a first year student and a 3.6 GPA each subsequent year. Participation in the College Honors Program is also required for scholarship renewal. If a student is removed from the College Honors Program, he or she cannot be readmitted. All College Honors Program participants must meet the preceding GPA requirements upon completion of all course work in order to be certified, at the time of graduation, as a College Honors Program graduate.

Dean's List. Students achieving a semester grade point average of 3.6 or higher for 12 or more graded credits are placed on the Dean's List at the end of each semester.

Department Honors. To encourage scholarly initiative and in-depth investigation within a limited area of study, Messiah College provides able students with an opportunity to pursue honors courses within their major. Students may qualify for an honors course by (1) learning a GPA of 3.50 for all courses completed at the College to the middle of their junior year and (2) meeting all other requirements as prescribed by the department (e.g. GPA for major courses).

Each department offering an honors course prescribes the nature of the work, the point at which it shall begin, and whether the credit in whole or in part may be counted toward fulfillment of a student's major requirements. The department must also approve a student's work for a given semester before permission can be given to proceed with the next semester's work.

Department Honors consists of four to six credits completed over two semesters, at the rate of one to four credits per semester. Only the grades A and B will carry credit. If the honors work is of such high quality as to merit the grade A, the student will graduate with honors in his/her major field. Students participating in the College Honors Program may meet their senior honors project requirement through an approved Department Honors course.

Graduation with honors in a discipline is recognized at Commencement and is noted on the student's diploma. Only senior students may participate in Department Honors courses.

Graduation Honors. The College awards three levels of honors according to a graduating senior's cumulative grade point average

(GPA): summa cum laude (3.90 GPA or above), magna cum laude (3.60–3.89 GPA), cum laude (3.30–3.59 GPA).

The following guidelines are used in determining the eligibility and level of honors granted:

- Only credit for courses taken at Messiah College and approved off-campus study programs are calculated in the grade point average.
- A minimum of 60 graded credit hours must be taken at Messiah College.
- Honors published in the Commencement bulletin will be based on the student's cumulative grade point average at the conclusion of the preceding fall semester.
- Final honors as noted on the student's diploma and transcript will be based on all credits earned at Messiah College.

Honor Societies. The College is affiliated with several national honor societies in selected academic disciplines. Students who excel in their academic major may be invited to join the respective society. Nominations are made during the junior and senior years.

Honors Smith Scholar Interns. The Smith Scholar Intern Program allows highly qualified upper-class students to work in apprentice relationships with faculty members and to participate in a significant research project. Additional information is available from the Office of Faculty Development.

Academic Integrity Policy. Personal integrity is a behavioral expectation for all members of the Messiah community: administration, faculty, staff, and students. Violations of academic integrity are not consistent with the community standards of Messiah College. These violations include:

- Plagiarism: Submitting as one's own work part or all of any assignment (oral or written) which is copied, paraphrased, or purchased from another source, including online sources, without the proper acknowledgment of that source. Examples: failing to cite a reference, failing to use quotation marks where appropriate, misrepresenting another's work as your own, etc.
- Cheating: Attempting to use or using unauthorized material or study aids for personal assistance in examinations or other academic work. Examples: using a cheat sheet, altering a graded exam, looking at a peer's exam, having someone else take the exam for you, sharing information about exams, using any kind of electronic mobile or storage devices (such as cell phones, PDA's, Blackberry, iPods, iPhones, iPads, Flash drives, DVD's, CD's, photocopy pens) for unapproved purposes, communicating via email, IM, or text messaging during an exam, using the internet, sniffers, spyware or other software to retrieve information or other students' answers, etc.
- Fabrication: Submitting altered or contrived information in any academic exercise. Examples: falsifying sources and/or data, etc.
- Misrepresentation of Academic Records: Tampering with any portion of a student's record. Example: forging a signature on a registration form or change of grade form.
- Facilitating Academic Dishonesty: Helping another individual violate this policy. Examples: working together on an assignment where collaboration is not allowed, doing work for another student, allowing one's own work to be copied.
- Computer Offenses: Altering or damaging computer programs without permission. Examples: software piracy, constructing viruses, introducing viruses into a system, copying copyrighted programs, etc.

- **Unfair Advantage:** Attempting to gain advantage over fellow students in an academic exercise. Examples: lying about the need for an extension on a paper, destroying or removing library materials, etc.

The full policy is published in the Student Handbook and the College communicates the policy to students via the new student orientation program. However, primary responsibility for knowledge of and compliance with the policy rests with the student.

Academic Petitions. Students who find it necessary to request an exception to any academic policy should secure and complete an Academic Policy Petition form from the Office of the Registrar. The Registrar's Office reviews the petition and notifies the student and student advisor of the decision, and includes a copy in the student record.

Access to College Records. Messiah College respects student rights guaranteed by law and appropriate to a private, Christian educational setting. Messiah College maintains student records under the guidelines of the Family Rights and Privacy Act of 1974 (FERPA), which gives enrolled students the right to inspect their "education records" and to restrict the release of those records. Education records are defined generally as records, files, documents, and other materials maintained by the College which contain information directly related to the student and from which a student can be individually identified. Examples include academic records, student account records, and many records maintained by Student Affairs. Education records do not include personal records of instructors or administrators, medical records, financial records of parents, or Public Safety records created for the purpose of law enforcement.

Education records may be released to parents/guardians **only** with the written consent of the student or upon written evidence that the student has been declared as a dependent on the parent/guardian's most recent income tax return.

FERPA permits the College to release "directory information" without student consent to anyone requesting information. Directory information at Messiah College includes a student's name, home address, campus address, home telephone number, campus telephone number, campus email address, photograph (available only on an internal online student directory and faculty class rosters), dates of attendance, degree for which a student is a candidate, academic major, academic awards or honors, class year, full-time/part-time status, and weight and height for members of athletic teams. Additionally, the College may provide lists of student names by religious preference (if known) once each year in response to inquiries by local churches. The College does not, however, release directory information to outside organizations for commercial solicitation. Any student may opt for directory privacy by going to the Student Directory Profile (Privacy Settings) found in BANNER self-serve. This option allows students to block any or all of the directory information that appears in the campus wide online directory. Students who opt to block all of their directory information will be excluded from any lists that may be provided to authorized internal and external departments. Thus, information that may otherwise be communicated to a student's parents (campus events, commencement, etc.) will not be. Any student who for legal or other legitimate reasons requires the highest level of records privacy must meet with the Associate Dean of Students and the Registrar to discuss the circumstances involved.

Auditing a Course. Students who wish to attend a course but not receive College credit or a grade for their work may audit the course. Students who audit a course must attend classes on a regular basis but are not required to do the course work or take any tests in the course. When the course is completed, the audited course is noted on the student's transcript. An additional tuition charge will be added if a student's registration exceeds 18 credits. Note: Courses taken as audit cannot be included for Financial Aid purposes. For additional clarification students should contact the Financial Aid Office.

Change of Major. After having declared a major, students who wish to register for another course of study must obtain the signature of the Department Chair for the new major. The Department Chair will assign the student to an academic advisor for that major. Changing a major must be done through the Office of the Registrar. A change of major may impact General Education requirements. Students should consult with the new advisor for information.

Class Attendance. Class attendance is important to student learning and hence central to Messiah College's educational mission; therefore, regular class attendance is expected. However, the College recognizes that certain types of educational activities take place outside the classroom and can lead to conflicts with class attendance. Guidelines for student attendance and absence are provided below.

1. Individual course policies on class attendance are left to the discretion of the instructor (or academic department). Individual faculty members (or academic departments) are expected to design and implement attendance policies that are supportive of the College-endorsed educational programming outside of the classroom and, to the extent it is possible, provide ways a student can make up the portions of the courses missed due to student participation in College-endorsed educational activities without penalty.
2. Attendance policies must be conveyed to students at the beginning of the semester and must be delineated in the syllabus. Attendance policies must address the following: (1) the extent to which attendance is required, (2) the role absences play in the attendance policy, (3) the policy for making up absences, and (4) the impact of attendance/absences on student evaluation.
3. Faculty should be respectful of student schedules and the class time assigned to other courses. Faculty have been given an assigned time for their courses, and it is, in general, expected that instruction will take place within this designated time. Any exceptions must be stated in the syllabus.
4. If an out-of-class requirement in one course conflicts with the class time of another course, the faculty member making the out-of-class requirement must provide other ways for the student to fulfill the requirement of the required out-of-class requirement.

For class absence due to personal illnesses, it is the student's responsibility to notify the instructor. For deaths in the family and similar emergencies, students should notify the Vice Provost/Dean of Student's Office, which will notify the Office of the Registrar, which will notify individual instructors.

Degree and Graduation Information. Academic advisors provide counsel to students regarding choice of curriculum and of each semester's program of courses, but responsibility that the required subjects are included at the proper time rests with the student. Final responsibility for the fulfillment of all requirements for graduation also rests with the student, who is expected to seek advice when

needed. Any deviations from the published requirements require the approval of the Registrar.

Application for Degree. Students working toward a degree must file an application for degree with the Registrar's Office at the beginning of their senior year. This presupposes the completion of a minimum of 87 semester hours of credit. Applications require the approval of the Academic Council and the Community of Educators before students are formally admitted to degree candidacy.

Graduation Attendance. Graduating seniors are expected to participate in the Commencement exercises. Exemption requests should be directed to the Office of the Registrar.

Requirements for All Degrees

1. 123 hours of credit, except as noted in the requirements for selected majors.
2. A minimum cumulative grade point average of 2.0 (C) for all academic work presented for the degree.
3. A minimum cumulative grade point average of 2.0 (C) for all work listed as specific requirements for the major.
4. The last 30 credits preceding the conferring of the degree earned at Messiah College with a minimum of 12 credits in the major.
5. For transfer students, a minimum cumulative grade point average of 2.0 (C) for hours required at Messiah College for graduation.
6. Completion of a major with requirements as specified by the respective academic department..
7. Completion of all General Education requirements.

Disability Services. Students with disabilities may request needed accommodations through the Office of Disability Services (located in Murray Library 115). Students requesting accommodation should contact the Office of Disability Services as soon as they have been accepted for attendance at Messiah College.

Eligibility is determined by submitting acceptable, current documentation to the Office of Disability Services. Documentation must include 1) verification of a disability ("a substantial impairment in one or more significant life activities," according to the ADA) conducted and signed by a qualified examiner, 2) the specific tests, results, and procedures used in making the determination, and 3) specific statements of need that clearly support and relate to the requested accommodations. Eligibility documentation older than three years may be considered but may not be sufficient for College purposes. Examples of acceptable documentation include in-depth psychological evaluations, medical reports and letters from physicians, and multi-disciplinary team reports from schools. Copies of Individual Education Plans or Section 504 Accommodation Plans will be considered but alone are not sufficient to determine eligibility. IEPs and 504 Plans do not automatically apply at higher education levels.

Caution: In compliance with the Americans with Disabilities Act, students must meet essential course and program standards, with or without accommodations. Essential program and course standards are not waived nor lowered for students who lack skills or the ability to comprehend or perform certain aspects of the program or course of study. **The College is not obligated under the ADA to modify or replace program or course standards with other standards more amenable to a given student when those modifications fundamentally change the nature of the program or course.**

Modification of peripheral elements of a course may be authorized at the instructor's or department's discretion. A reasonable accommodation might be to allow use of a calculator so a student with a disability in mathematics can perform required calculations on tests and exams. Omitting test questions covering essential elements of a course for that student violates the equal access elements of the ADA and Section 504 of the Rehabilitation Act and is not considered a reasonable accommodation.

Other potential areas of difficulty can be activity-intensive courses where attendance and daily, active participation are essential but a chronic health condition leads to frequent or extended periods of absence, and courses with high standards for spelling (for example, elementary education, and medically-related programs of study) for students whose writing or spelling skills do not meet accepted professional standards.

Students are encouraged to discuss any disability-related skill deficits with their advisors and/or Disability Services personnel to determine whether skill limitations can be accommodated in a particular course or major. No student will be excluded from attempting any major or program for which they are otherwise qualified. However, in some cases, the student may be advised to select another major that relies on their strengths rather than weaknesses.

The College is responsible for making reasonable accommodations for those who meet the qualifications under the ADA. In some cases, the accommodations provided may be different but as effective as those specifically requested. In particular, those students coming from public school settings where special education has been provided need to be aware that the emphasis changes under the ADA from "entitlements" (required special education supports) to "accessibility," or accommodations to assure qualified students that they have equal access to the full range of programs and services offered by the College. There are no additional charges for accommodations which may include such things as:

- extended time on tests
- proctored exams in alternate locations
- assistance with getting class notes
- copies of lecture notes
- advocacy/referral services
- coaching
- textbooks in alternate formats (e-text, Braille, etc.)
- special housing arrangements
- priority registration
- assistance with computer hookups or systems
- assistance with using assistive technology
- interpreter/transcription service
- special parking arrangements
- arranging accommodations for international study

Students requesting accommodation should contact the Office of Disability Services as soon as they have been accepted for attendance at Messiah College. An interview is required to determine eligibility and to determine approved accommodations. This also gives the student an opportunity to describe his or her unique circumstances and to problem-solve with Disability Service staff in determining appropriate supports that may be available or need to be developed. For more information, students are encouraged to peruse the Office of Disability Services website: www.messiah.edu/offices/disability.

Directed Study. Directed study is available to junior and senior students who need to complete a catalogued course at a time other than when it is offered. Each department has designated which

courses may be offered by directed study. Each study must be done under the supervision of a qualified faculty member who will meet with the student from three to five hours per credit hour of the course.

Examinations.

Class examinations. When students miss a pre-announced class examination, the instructor decides whether they will be granted a make-up privilege.

Final examinations. The final exam period is an important and integral part of the semester. Faculty members are to use this time as a part of the semester's education and will not schedule events which conflict with the final exam schedule. Students are expected to attend their final exams at the scheduled time.

Requests for final exam changes. Any student having more than eight credit hours of final examinations in any one day may request a change in his/her final exam schedule. It should be noted that travel arrangements are not sufficient reason for exceptions to the exam schedule. All requests for change must be submitted to the Office of the Registrar using the Request for Final Examination Change Form at least one week prior to the first day of final exams. Once the Registrar confirms the student is scheduled for more than 8 credit hours of final examinations in one day, the student and instructor need to coordinate to reschedule the exam for a time mutually acceptable to both.

Grading System. Letter grades (A, B, C, D, F) carry a quality point value and are used in the computation of semester and cumulative grade point averages. Letter grades and their corresponding quality point values are as follows:

A	= 4.0	B+	= 3.3	C+	= 2.3	D+	= 1.3
A-	= 3.7	B	= 3.0	C	= 2.0	D	= 1.0
		B-	= 2.7	C-	= 1.7	F	= 0.0

Credits and Quality Points. A student's cumulative grade point average is determined by dividing the number of quality points earned by the number of credit hours attempted in which quality points may be earned (graded total). Credits transferred from other institutions do not carry quality points and are therefore not computed in the grade point average.

Repeating Courses. A student may repeat any course in which a grade of D+, D, or F was received. With repeated courses, the second grade and credits count in the calculation of the student's cumulative GPA, but the original grade and course will remain on the student's transcript. All repeat courses must be taken at Messiah College, including approved off-campus program, subject to the assessment of course equivalency.

Grade Appeal Procedures. An appeal process for students who wish to dispute the final grade received for a course can be found in the *Student Handbook*.

Pass/Fail Grades

During a college career, students may take a maximum of four courses on a Pass/Fail (P/F) basis with these conditions:

- The course cannot be used to meet a major, minor, or QuEST requirement. It must be a free elective.
- The cutoff for Pass shall be C-.

Pass/Fail grades do not carry a quality point value and are not used in the computation of semester and cumulative grade point averages.

P = Pass. Used only for a passing grade in a Pass/Fail course or when a student selects to register for a course on a Pass/Fail basis. The cutoff for pass is C-. Semester credits in which the student receives a P count toward the total required for graduation, but not toward the grade point average.

F = Failure. The grade of F is a failing grade and is included in the computation of both the semester and cumulative GPA. F applies under the following conditions:

- The student has not done passing work for the term;
- The student drops the course in the final third of the term;
- The student does not do passing work (earning a D+ or less) in a course graded on a Pass/Fail basis;
- The student fails to clear an Incomplete within the specified time frame;
- The student unofficially withdraws from a course.

Approved Pass/Fail Only Courses. The following courses may only be taken as Pass/Fail:

ADED 485	HPED 407
ATED 291	MUEN 111-156
BUSA 102, 115	MUSI 001
CHRM 099	ENGL 391, 392
ENGR 389	SERV 232
GEST 101, 140, 210	TEP courses
HDFS 099	

Approved Letter Grade Only Courses. The following courses may only be taken for a letter grade:

- CIS 283, 411, and 412
- INTE 394
- IBI 331, 339, 350, 390

Auxiliary Symbols.

W = Withdrawal. During the middle third of the semester, students may withdraw from courses with a grade of W. The grade will be posted on the academic transcript but it will not affect the student's GPA.

I = Incomplete. The grade of I is given when, for some major reason such as illness, a student has been unable to complete the prescribed course on schedule. It should be given rarely and never to accommodate the student who through carelessness or poor planning does not complete his/her work on time. For credit, an I must be removed according to the following time schedule; otherwise, an F will be recorded. Fall semester: Before opening of Spring term. All other terms: By the end of the fourth week following term.

Medical Leave. Medical Leave is available for students who, due to documented serious physical or psychological illness, need to leave the College during the semester without completing their course work or to withdraw from the College for no longer than two consecutive semesters. Students on medical leave are not regarded as having permanently withdrawn from the College and need not apply for re-enrollment. However, students must be approved for fitness to return to campus through the process described in the policy.

A student may request a more limited **medically excused** status if he/she is medically unable to complete the final 40 percent of a semester but intends to return to the College at the beginning of the following semester. A student approved for medically excused status need not request permission to return to the College for the following semester unless conditions for returning had been stipulated by the

College at the time of departure. The complete policy and procedure are available in the *Student Handbook*.

Multiple Programs. When a student is completing more than one program, at least 12 credits in a minor, 24 credits in a major, and 8 credits in a concentration must be unique to each program.

Double Major and Dual Degrees. Students may complete more than one major within the normal timeline and requirements for each baccalaureate degree. A student pursuing a double major must determine which major is the primary major and which is secondary. The primary major determines whether a B.A. or a B.S. will be granted. Unless additional requirements are met (see “Dual Degree”), a student completing a double major receives only one diploma and one degree representative of the primary major. The primary major is also the standard by which General Education, other requirements, and the degree are determined.

A *dual degree* is the concurrent awarding of two different majors each with a different baccalaureate degree type, e.g., a B.A. and a B.S. In order to graduate with dual degrees, the following conditions must be met: there is no more than a one third overlap between the major associated with each degree; the student completes the general education requirements related to each major; and completes at least 30 additional credits beyond the larger baccalaureate degree program. Since Messiah’s baccalaureate programs range from 123 to 128 credits, anyone completing two degrees must complete 153-158 credits. Students who complete these requirements will be issued two diplomas, one for each degree earned.

Overload. Any student taking more than 18 credits per semester must first obtain the approval of the student’s academic advisor and the Registrar. Moderate requests for overloads are generally granted if the student has a grade point average of 3.0 or better. Additional tuition will be charged by the credit hour at the overload rate for each credit above 18.

In the spring semester, any student taking more than 4 credits in the J-term or more than 15 credits in the Spring term must first obtain the approval of his/her advisor and the Registrar. Additional tuition will be charged by the credit hour at the overload rate for each credit above 18.

Registration. During the fall and spring semesters, currently enrolled degree-seeking students may preregister for the following academic semester. Students must consult with their assigned academic advisor and obtain his/her approval before preregistering for classes. Prior to preregistering/registering for classes, a student’s account must be paid to date and all health records must be complete in the Engle Center. Students are considered actively enrolled the first day of classes.

Adding a Course. Students may add courses through the end of the second week of classes each semester. Changes made in the second week of classes and beyond require the written approval of the instructor and the student’s academic advisor on a Drop/Add form. Schedule additions after the second week of the semester require approval of the Registrar and are subject to a late registration fee. Students may add a J-term course during the first three days of J-term.

Dropping and Withdrawing from a Course. Courses may be dropped during the first third of the term and will not appear on the

student’s transcript. Students may withdraw from a course during the second third of the term. Courses from which a student has withdrawn will be indicated with a “W” on the student’s transcript. Dropped or Withdrawn courses do not affect the student’s grade point average. After the first five class days of a semester, a fee may be assessed for each course change requested. Specific deadline dates for course changes are posted each semester on the Registrar’s homepage.

Satisfactory Academic Progress and Academic Alerts

Satisfactory academic progress toward a degree as a full-time student is defined as completion of 24 or more credits per academic year and maintaining a cumulative grade point average of 1.8 while earning the first 23 credits, 1.9 for 24-56 credits, and 2.0 for 57 credits or more.

Progress Alert. When a student’s progress in a course is at risk (e.g., low test scores; missing assignments; lack of attendance), the faculty member is encouraged to initiate an “Academic Progress Alert.” This email communication will be sent to the student and copied to members of the campus community who have a confirmed relationship with the student (e.g., academic advisor, athletic coach, office mentor, residence director, etc.). This alert is intended to motivate a student to seek the appropriate assistance and to notify those members of the campus community who may be in regular contact with the student.

Academic Warning. When a student’s semester grade point average (GPA) is less than a 2.0 regardless of the cumulative GPA, the student will be sent an academic warning. This notice will be copied to the student’s academic advisor as well as the parents of the student provided a signed records release is on file. The warning is intended to alert the student so that the appropriate measures necessary for academic success can be taken.

Academic Probation. The purpose of placing a student on academic probation is to help the student reorder his/her priorities and time commitments in the direction of greater emphasis on academic studies, in order to help that student attain the College’s minimum standards for satisfactory academic progress as soon as possible. Any full-time student who fails to maintain satisfactory academic progress (defined as completion of 24 or more credits per academic year and maintaining a cumulative grade point average of 1.8 while earning the first 23 credits, 1.9 for 24-56 credits, and 2.0 for 57 credits or more) will be placed on academic probation.

The Registrar is responsible for notifying students of their being placed on academic probation immediately upon completion of the grading process for the period of study leading to such status. A student on academic probation will be advised to take a maximum of 14 credits per semester while on probation.

A student who is placed on academic probation may appeal for an exception to the cocurricular ineligibility clause. The appeal must be sent in writing (email is acceptable) to the Registrar. The deadline for an appeal is no later than the end of the first week of classes of the semester for which the exception is being requested. Appeals should be accompanied by letters of support from the student’s academic advisor and the individual responsible for the oversight of the student’s participation in the cocurricular activity (e.g., athletic coach, supervising faculty member, etc.). The decision of the Academic Appeals Subcommittee shall be final.

Cocurricular and Athletic Eligibility. A student who has been placed on academic probation shall be ineligible for participation in the following cocurricular activities:

- Intercollegiate athletics and club sports
- Theatre productions
- Music ensembles
- SGA officers
- Officers in any SGA-chartered organization, including team managers of Outreach Teams
- Music Ministry Teams
- Resident Life Staff
- Staff members of The Pulse Media Hub

Students placed on academic probation as a result of fall semester grades shall become ineligible for cocurricular participation on the first class day of J-term/Spring Semester. Students placed on academic probation as a result of spring semester or summer session grades shall become ineligible for participation on the first class day of the fall semester. The only exceptions will be those cases where such participation earns academic credit in a college course and that course meets a graduation requirement for the student's major.

Students who are removed from academic probation as a result of fall, spring semester, or summer grades shall become eligible for cocurricular participation as soon as grades are officially recorded for that period of study.

Academic Suspension, and Dismissal. A student who does not maintain the minimum cumulative grade point average for two consecutive semesters will be placed on academic suspension for two semesters. Any student taking six or more credits in a semester who receives less than a 1.0 (D) semester grade point average will be placed on academic suspension.

After two semesters of suspension, the student may apply for reinstatement by providing evidence of probable success. Upon return, if a student fails to achieve the minimum cumulative grade point average in two semesters, the student will be dismissed from the College. A student who is dismissed for academic reasons may apply for readmission after two years. Such a student must present 24 credits of transferrable work taken after dismissal from Messiah.

Academic Appeals of Suspension. Appeals of academic suspension must be submitted in writing to the Academic Appeals Subcommittee and must include an explanation of why minimum academic requirements were not met and why an exception is warranted. Appeals must be received within the time limit stated in the suspension notification.

Specialized Degrees. Messiah College may offer specialized degrees such as Bachelor of Science in Nursing (B.S.N.) or Bachelor of Science in Engineering (B.S.E.), etc. Such specialized degrees will be treated as Bachelor of Science degrees.

Transcripts. Upon written request from students, the Office of the Registrar issues transcripts of academic records. Contact the Office of the Registrar at www.messiah.edu/registrar for transcript fees. Before transcripts can be issued, a student must have a clear account with the Falcon Exchange.

Withdrawal from the College. Students who intend to withdraw from the College during a semester or subsequent to the end of a semester must complete the Notification to Withdraw/Transfer form. This online form is available in the Registrar's Channel through MC-Square. The date this form is submitted will be used to determine the percentage of refund eligibility as published by the Business Office. Students will be contacted to arrange an in-person exit interview.

ACADEMIC RESOURCES and COLLEGE CENTERS

Agapé Center for Service and Learning. The Agapé Center for Service and Learning develops, administers, resources, and coordinates programs of service-learning, community service, and mission contributing to the mission of Messiah College to “educate men and women toward maturity of intellect, character, and Christian faith in preparation for lives of service, leadership, and reconciliation in church and society.” Students, faculty, and staff work with community-based partners in local, national, and international settings to empower communities, provide holistic learning opportunities for students, and to encourage students toward an ethic of discipleship, service and civic engagement.

The Agapé Center is home to the following Executive Student Organizations: Outreach Teams, Service Trips, Human Rights Awareness, and World Christian Fellowship that help educators coordinate a variety of local, national, and international service-learning opportunities. Additionally, the Agape Center coordinates the following Service Days for the campus community: Into the Streets, Dr. King Community Engagement Day, and Service Day.

Service-Learning Programs. Messiah College is committed to providing experiential opportunities for students to learn through service. Courses across the curriculum have been designated with a service-learning attribute to signify that educational and community objectives will be met experientially as students engage in service, content, and reflection Courses with a service learning component have service-learning as both a strategy and an essential part of the content composing the course.

The Beatrice Howe Language Center has approximately 30 computers and is frequently used by language students complete the listening and speaking assignments that correspond to their respective textbooks. Students make oral recordings, which can be used to improve pronunciation, or as evidence of achieving speaking objectives. Some stations are equipped with language learning software such as AUDACITY, EUROTALK, and TELL ME MORE for students desiring additional practice in Chinese, French, German and Spanish.

The Ernest L. Boyer Center advances Ernest L. Boyer’s vision for renewing education and society through programs and scholarship both within and beyond Messiah College. Messiah College is fortunate to serve as the steward of the late Ernest L. Boyer Sr.’s legacy. Ernest L. Boyer, Sr. is a distinguished alumnus of Messiah College, whose notable service included chancellor of the State University of New York, United States Commissioner of Education under President Jimmy Carter, and President of the Carnegie Foundation for the Advancement of Teaching.

Founded in 1997, following the generous donation of Boyer’s extensive collection of original speeches, memorabilia, and photos to the college, the Center has established a distinctive record in fulfilling its mission with the support of individual donors, private foundations, federal grants, and Messiah College. The original manuscripts of the Boyer Archives are housed in Murray Learning Commons, and over 20,000 documents are available online through the Center’s digital collection.

Scholars both within and beyond the Messiah College access the Boyer Archives in order to conduct research that integrates the concepts that have grown out of Dr. Boyer’s original thinking into current scholarship and educational practice. The Center also provides research grants enabling Messiah College students and educators to access the Boyer Archives. The Ernest L. Boyer Center is located in 101 Boyer Hall.

The Brethren in Christ Historical Library and Archives/Archives of Messiah College is the official repository for the denomination and the college. The museum displays feature artifacts from church and college life. Other resources include manuscripts, oral history, and an extensive photograph collection. The Archives is open to the public for casual visits and research. Visit our websites at www.messiah.edu/archives and www.messiah.edu/siderinstitute/BIC-archives for more details.

The Career and Professional Development Center is committed to serving the career and professional development needs of students from every academic major and class year. Career coaches are available to assist students in the following areas: identifying core strengths and interest areas, exploring majors and career options, developing a plan to test out possibilities and gain practical experience through internships, and providing resources for the transition to employment and graduate school. Through individual career advising appointments, career-related programs and events, and interactive online resources, the Career and Professional Development Center offers services to meet a wide variety of career development needs. Students are encouraged to visit the Career and Professional Development Center as often as necessary, beginning with their first year on campus.

The Collaboratory for Strategic Partnerships and Applied Research enables students and educators to apply academic knowledge and live out their Christian faith through imaginative, hands-on problem solving. We partner in our region and around the world with non-profit organizations and the Christian Church to serve disadvantaged people and care for the earth. Current areas of engagement include the sciences, engineering, health, information technology, business, and education. Collaboratory participants develop professional competencies and vocational vision for lifelong servant-leadership in the context of intentional Christian community and discipleship.

The **Engle Center** provides a variety of counseling and health-related services to students. Counseling staff provide individual therapy, nutritional counseling, and premarital counseling. For full-time students, there is no charge for the services available, when needed assistance is provided in finding a counselor off campus.

The Engle Center is open Monday - Friday from 8 AM to 5 PM when classes are in session. A registered nurse (RN) or nurse practitioner is available for telephone consultation after hours when students have urgent medical questions that cannot safely wait until the Engle Center reopens the next business day. A Nurse Practitioner is available by appointment Monday - Friday on a fee basis. RNs are also available by appointment, at no cost. There are low cost fees for the administration of allergy shots, lab work, some procedures and supplies. These fees can be charged to a student’s tuition account or paid at the time of service using cash, check, or Falcon Dollars. A travel medicine clinic is available for pre-travel consultation and vaccinations needed for overseas travel. A schedule of fees is available on the Engle Center website.

When needed, Health Services personnel can refer students to other physicians and area hospitals. Students are financially responsible for the cost of services performed off campus. The Engle Center does not file claims with students' insurance companies; it will, however, provide a bill which can be used by the student to file a claim. For those students who subscribe to the college-sponsored plan, a claim form will be provided upon request at the time of service. Most routine immunizations are now covered by the College-sponsored insurance plan.

Prior to enrollment, students are **required** to have a physical exam and to complete an online health history form. In addition, students must complete a TB screening form and provide proof of the required immunizations. If a tuberculosis test is needed, it must be completed within the 6 months prior to entering the College. Students who do not complete the required health history, physical, TB screening and immunization record will have a hold put on their registration for subsequent semesters. Students who do not follow through with the TB screening protocol within 3 weeks of the start of classes may be asked to remain off campus until testing is complete.

Messiah College assumes no liability for accidents, but offers an insurance plan covering sickness and accidents. We urge students to remain in their family insurance plan and provide documentation of coverage at the on-line waiver system in place through the Business Office; otherwise, the student will be automatically enrolled in the College-sponsored plan after the waiver deadline.

The Office of Information Technology Services provides extensive support in a variety of computing facilities. Students have access to over 300 computers located in 3 general-purpose labs (Frey 145, Frey 166 and Boyer 337), 4 dormitory labs (Hess A41, Kelly B6, Mellinger C5, and Sollenberger A45), and 28 department labs. All labs have a large selection of pre-installed software and are connected to the campus network. In addition, all student rooms and major campus buildings, are set up for wired and wireless access to the campus network. The Student Computing Services team, located in the lobby of Hoffman Hall, provides support for students. Services include assistance with connecting personal computers to the network and troubleshooting any issues that may arise on personal computers that may affect coursework.

Intercultural Office gathers Off-Campus Programs, International Student Programs, and Multicultural Programs into one office committed to exploring new opportunities and synergies for global engagement while promoting cultural awareness through education and cultural engagement. The programs within the Intercultural Office serve the needs of international students, MK/TCKs (missionary kids and third culture kids), under-represented domestic students, and students who desire to study off-campus during their time at Messiah. These equally important programs work in close collaboration to carry out the overall mission of the Intercultural Office: *To embrace the diversity of the body of Christ by creating and providing safe, transformative learning environments and opportunities for students to engage the world as reconcilers and servant leaders at home and abroad.*

The **Learning Center** (located in Murray Library) provides students with assistance in achieving and maintaining the level of academic proficiency necessary to be successful in Messiah College's rigorous intellectual environment. Beneficial to students at all levels of competence, both individual and small group tutoring is offered free of charge. Trained tutors who have excelled in the courses in which

they are providing assistance offer tutoring in a number of subjects, including, but not limited to, Biology, Chemistry, Nursing, Spanish, Math, and Music Theory. In addition, tutors are capable of providing assistance with various academic skills such as time management, test-taking, textbook reading, note-taking and memory enhancement.

Tutors work closely with students and professors to focus upon meeting the needs of each individual student. Tutors are upper division students who have already taken and successfully completed the courses in which they are providing assistance. Tutors are also trained in various study skills such as time management, test-taking strategies, textbook reading, note-taking and memory skills, in order to provide assistance in these areas.

Murray Library and Learning Commons. A key facility in the College's educational program is the Murray Library. It contains quiet and chat-friendly places for individual and group study, a coffee/pastry bar, and a computer lab. Librarians are available during most open hours to help students with reference and research questions. The library building contains a newly renovated Learning Commons that houses the Office of Disability Services, the Writing Center and the Learning Center. The library provides online access to more than 100 academic research databases, 80,000 journals, 90,000 ebooks, and more than 250,000 print books, periodicals, and other media. The Library also houses the Brethren in Christ and College archives, and the Athenaeum. Membership in various consortia expedites the loan of resources from other libraries.

The Oakes Museum of Natural History is an educational outreach program of Messiah College with a core of 12 collections with over 60,000 specimens, plus the use of the beautiful campus itself for many outdoor activities. It features animals from Africa and North America set in dioramas of their natural habitats, bird eggs and nests, geologic specimens, butterflies, and a myriad of other insects. Also, herpetological specimens, pressed plants, fungi and Native American artifacts round out the diversified collections held by the Museum. Families especially enjoy the Sensory Discovery Room where they can handle birds, seashells, rocks, minerals and jars containing frogs, salamanders and more!

Service focuses on customized, educational group tours for public and Christian schools plus college classes from all majors across the campus. A few students each year are able to do internships at the museum as well. Messiah students serve as volunteer docents who deliver tours during our public visitation hours, which are every Saturday (except major holidays or holiday weekends) from 1:00 to 5:00 p.m. Admission is free for college students and their immediate families as well as for alumni and their immediate families. See www.messiah.edu/oakes.

Office of Disability Services. Students with disabilities may request needed accommodations through the Office of Disability Services (located in Murray Library). Students requesting accommodation should contact the Office of Disability Services as soon as they have been accepted for attendance at Messiah College. For details about Disability Services procedures, refer to the Academic Policies section of this Catalog. For more information, students are encouraged to peruse the Office of Disability Services website: <http://www.messiah.edu/offices/disability/>

The Sider Institute. Through a variety of educational opportunities and scholarly programs, the E. Morris and Leone Sider Institute for Anabaptist, Pietist and Wesleyan Studies facilitates the exploration,

and interpretation of the three theological traditions which have shaped both the Brethren in Christ Church and Messiah College. For more information on the Sider Institute, visit www.messiah.edu/siderinstitute.

Supplemental Instruction (SI) is a program that targets “high risk courses” rather than “high risk students.” The College pays trained Supplemental Instruction Leaders to attend selected class lectures, take notes, read course material, then plan and conduct two 1.5 hour review sessions outside of class each week. The SI review sessions are interactive and utilize a variety of collaborative learning techniques as they combine how-to-learn with what-to-learn. Students acquire effective study strategies as they review course material and prepare for tests. The sessions are not remedial, but benefit all who attend. Statistical data suggest that students who attend SI sessions earn one-half to a full letter grade higher than those who choose not to attend.

Writing Center. Any student at any stage in the writing process—from understanding an assignment and finding a topic to composing and revising a draft—may find assistance and encouragement at the Writing Center. Trained peer tutors advise and support student clients who visit the Writing Center, helping them become more confident and adept writers. The Writing Center is located within the Learning Commons of Murray Library.

Off-Campus and Study Abroad Learning Opportunities provide opportunities for students to explore off-campus study – both short-term and semester-long international and domestic programs – that will enrich their college education. Students can travel across the ocean to Europe, the Middle East, or Africa. They can visit neighbors to the south in Latin America or discover educational adventures here in the United States. In partnership with a variety of programs on campus (such as the Agape Center for Service and Learning, the Collaboratory, and AROMA Sports Ministries), students have many opportunities to engage the world through short-term experiences – both credit-bearing and non-credit-bearing. Three-week three-credit cross-cultural courses include intensive study of the local culture through lectures and readings, as well as either extended home-stay or an ethnographic fieldwork project. Weeklong co-curricular service trips provide students the opportunity to serve alongside their peers while investing in long-term projects around the world. The Intercultural Office houses catalogs, brochures, course listings, applications, videos, and travel-related literature and resources. Students can also learn about costs, deadlines, and requirements, as well as obtain passport photos, passport applications, and International Student Identity Cards. For additional information, browse the Intercultural Office Homepage at: www.messiah.edu/intercultural.

Approved Off-Campus Study Programs

The Intercultural Office provides students with information about off-campus and enrichment study opportunities, such as study abroad, internships, and service programs. This office is open weekdays from 8:00 a.m. to 5:00 p.m., and is located in the Larsen Student Union. The Intercultural Office is the first stop in beginning the journey to study off campus. Advisors are available to meet with students to explore options. All students seeking pre-approval must meet basic eligibility requirements including:

- Sophomore, junior, senior status (some programs only accept juniors and seniors)
- For language majors or minors: four semesters of college-level language

- 2.75 GPA (some programs require a higher GPA)
- Clear probation record (disciplinary, chapel, academic)

Students must apply for pre-approval a year in advance (fall December 1; spring April 1). Completing a pre-approval application does not guarantee Messiah approval or program acceptance.

American Studies Program (Washington, DC). Open to juniors and seniors in all majors, the American Studies Program brings together students from various Christian colleges for one semester of study and internship experience in Washington, DC. Students are introduced to a wide range of subjects relating to domestic and international political, economic, strategic communication and social issues. Drawing upon the vast resources of the nation’s capital, students are encouraged to explore their disciplines in light of their Christian faith. In addition to the academic modules, students are individually placed in internships suited to their academic and vocational interests.

AuSable Institute of Environmental Studies (Mancelona, MI). Messiah College participates in the programs of AuSable Institute of Environmental Studies. The AuSable Institute offers courses and programs during the summer as well as J-term. Scholarships are available to qualified students involved in summer study at the Institute.

Australia Studies Centre (Brisbane, Australia). Adventure, academics, Australia! Students explore Australian culture while living with Australian families and taking classes alongside Australian students at Christian Heritage College in the bustling city of Brisbane. With a focus on Aboriginal culture, students learn from indigenous peoples both in the classroom, in the community, and during a trip to the outback.

CIEE Shanghai (Shanghai, China) Students immerse themselves in Chinese language and culture in the large, bustling city of Shanghai, China. Students live with host family or in student housing and take classes in Mandarin Chinese language as well as courses in Chinese politics, economics, history and society.

Contemporary Music Center (Nashville, TN). Students interested in contemporary music—as artists, in executive roles, or from a technical aspect—will discover firsthand the inside workings of the music industry.. Each semester the students take the program on the road as they perform at Christian colleges around the country. Nashville provides the perfect setting for students to explore what it means to be a Christian in today’s music industry.

Cross-Cultural Courses. Students can discover a whole new world when they step out of familiar surroundings by participating in cross-cultural study courses. Whether studying abroad in Costa Rica or spending a few weeks with an Amish family in Lancaster County, PA, students will experience firsthand a way of life that they may have only read about in books. The three-week courses include intensive study of the society through lectures and readings, as well as either an extended home-stay or an ethnographic fieldwork project. Courses and locations vary annually and have included areas such as Germany, Ghana, Italy, and Zambia.

Gaiety School of Acting (Dublin, Ireland). This three-week J-term course, which takes place in Dublin, Ireland, allows students to experience Irish culture through the arts. According to the program syllabus, the course “combines the literary study of plays with work in

the craft of acting.” In addition to classroom instruction, students visit various Irish museums and theatres (such as the Book of Kells, The Irish Museum of Modern Art, The National Gallery, The Irish Writers Museum, and The James Joyce Centre), as well as participate in a final performance/reception.

GoED Africa (Kigali, Rwanda). Based in Kigali, Rwanda, the Go ED Program in Africa engages students with the reality of global poverty. Students witness growth and struggle within this developing country. The new government of Rwanda has been working to build peace and unity since its start in 1994. The program fosters spiritual formation alongside academic courses and cross-cultural experience. In addition to classroom instruction, students participate in local service projects.

GoEd Mekong (Chiang Mai, Thailand). The highlands of northern Thailand is home to GoED Mekong, an intensive immersion program that allows students to explore “the root causes of exclusion and exploitation of marginalized people groups” and to gain an “understanding of the relationship between exploitation and its root causes: poverty, discrimination, exclusion and violence.” The program fosters spiritual formation alongside academic courses. In addition to classroom instruction, students participate in service projects with local NGOs.

Goldsmiths: University of London (London, England). Live and study in Europe’s third largest city! Goldsmiths’ environment is energetic— a college that allows self-expression to flourish, yet hones students’ creative and critical thinking. A distinctive constituent college of the University of London, Goldsmiths’ truly local urban setting is not the fashionably-thronged tourist mecca of the more familiar West End. As a result, students will have the chance to see the everyday London not usually visited by out-of-towners, making for a genuinely cross-cultural experience in the UK’s most cosmopolitan city.

Gordon in Orvieto (Orvieto, Italy). Italian language instruction, art history, and hands-on art studio courses in sculpting and painting makes this 16-credit program in Italy an attractive option for art students. In addition to classroom instruction, students visit artistically and culturally relevant locations throughout the country.

International Business Institute (Multiple European Sites, India and China). The International Business Institute facilitates the integration of academic study with an international field experience, giving students an opportunity to develop a global perspective of business. Thirteen countries (Lithuania, Russia, The European Union, India and China) are the classroom settings for students who participate in the ten-week Institute. Students will experience the history and culture of Europe and Asia, while studying international business, global marketing, and international business strategies.

ISA: Paris (Paris, France). The City of Light is host to ISA’s three study abroad programs in Paris. The internationally known Sorbonne is the perfect place for French majors and strong language speakers to enhance their French skills while taking classes with French students. The Catholic University of Paris offers French language classes as well as courses in culture, art, theater, literature, communications, and history. Courses are taught in French and English, depending on the specific course. Finally, students can choose to study at the American Business School Paris where courses are primarily taught in English. Students live with host families and participate in educational excursions with the program. Students can choose a faith-based

option through Veritas Christian Study Abroad track where they will participate in a service project and be partnered with a missions mentor.

Jerusalem University College (Jerusalem, Israel). Jerusalem University College exposes students to the geography, history, culture, and languages of Israel/Palestine, preparing them for a lifetime of Biblical study. Students can spend one or two semesters studying in and about this Middle Eastern region of the world when they attend the Jerusalem-based institute. The school offers a number of 300-level courses in archaeology, geography, Hebrew Bible translation, history, and Middle Eastern studies.

Latin American Studies Program (San Jose, Costa Rica). Students study Latin American economics, culture, politics, and faith when they travel to Costa Rica for 17 weeks with the Latin American Studies Program. The San Jose-based program includes home stays, Spanish language study, travel to a number of Central American countries, and two-week service projects. Students who prefer a specialized experience can choose either a concentration in International Business and Marketing during the fall semester, in which the service project is replaced by a four- to five-week internship, or Biological Science study in the spring.

LCC International University (Klaipeda, Lithuania). Witness history in the making while studying in Klaipeda, Lithuania. Once part of the former Soviet Union, Klaipeda is home to LCC International University which serves 600 students from a number of Eastern European nations. Students live in dorms and take classes with European students. A week-long trip to Moscow and St. Petersburg, Russia and a weekend trip to Latvia and Estonia round out this adventure. Courses in accounting, business, communication, conflict studies, economics, English, history, literature, marketing, social science, and theology are offered each semester. All courses are taught in English.

London Internship Program (London, England). The London Internship Program, sponsored by Arcadia University: The College of Global Studies offers internships and academic study for a semester in London, England. Students are placed in field experiences related to their majors and take classes offered by faculty at Arcadia University. Internships are offered in a variety of areas, including arts, charitable organizations, media and broadcasting companies, healthcare establishments, government offices, and large corporate enterprises.

Los Angeles Film Studies Center (Los Angeles, CA). This program provides an introduction to the work and workings of the mainstream Hollywood film industry. It does not assume that students have had previous experience in film. The LAFSC does not intend to be a substitute for film school, as its curriculum is designed to expose students to the industry, to the many academic disciplines that might be appropriate to it, and to critical thinking and reflection on what it means to be a Christian in this field of endeavor. In addition to regular classes, students gain practical experience by participating in internships which have included placement with Warner Bros. Studios, Bruckheimer Films, Chamian Casting, and the “Touched by An Angel” TV series.

Middle East Studies Program (Amman, Jordan). Students spend one semester in Cairo, Egypt, studying Middle Eastern culture and religion, learning Arabic language, and exploring political conflicts. The 15-week program includes an ongoing field service project, a two-

week trip to Israel/Palestine, and a two-week tour of several Middle Eastern countries. This program is designed to give students an increased understanding of Middle Eastern culture, Islam, and the greater Arab world; to broaden their horizons as global citizens; and to provide contact with a civilization that is over 4,000 years old.

National Outdoor Leadership School (Multiple sites in the U.S.). The wilderness is the classroom for juniors and seniors who participate in this hands-on wilderness education program. NOLS teaches students “outdoor skills, leadership and environmental ethics” in a variety of locations throughout the U.S., including the Rockies, Teton Valley, Pacific Northwest, and the Southwest; students can also take part in an Outdoor Educator Semester.

NYC Semester: The King’s College (New York, NY) Journalism, business, and theater students can spend a semester in New York City exploring their discipline through classroom instruction, internships, and networking. Spend a semester in the major city and take advantage of all it offers as part of The King’s College NYC Semester.

O’Neill National Theater Institute (Waterford, CT). This intensive theater program offers students a unique opportunity to study acting, directing, playwriting, movement and voice, and design in a conservatory setting. Students are immersed in theater studies; classes take place for 14 weeks, seven days a week! Students typically take two-week educational excursions to train with professional theater companies in New York City, Stratford-upon-Avon, England, or St. Petersburg or Moscow, Russia.

The Oregon Extension (Ashland, OR). This fall semester program enables juniors and seniors to pursue intensive interdisciplinary study in the southern Oregon Cascade Mountains. The program provides opportunity for students to deal seriously with ideas, Christian commitment, and life as they examine the nature of contemporary society. Classes, taught in three-week increments, include lectures by faculty members and researched presentations by students. During their stay at the Extension, students live in cabins with three or four other participants and buy and cook their own food as well as contribute to the operating activities of the community.

Oxford Study Abroad Programme. Academically-strong student can spend a semester participating in one-on-one tutorials with Oxford professors at New College, St. Edmunds, St. Annes, Trinity College and (Magdalen-Visiting Students Only) through the Oxford Study Abroad Program. The 12-13 week program offers courses in a wide range of disciplines and includes five educational tours each semester.

Pontifical Catholic University of Valparaiso (Valparaiso, Chile). Located on the coastline of Chile between the Andes Mountains and the Pacific Ocean, Valparaiso offers hilltop vistas, beaches, and abundant cultural opportunities. At the Pontifical Catholic University of Valparaiso, students study alongside local Chilean students and participate in educational excursions in Chile. Students can choose a faith-based option through Veritas Christian Study Abroad track where they will participate in a service project and be partnered with a missions mentor.

Scholars’ Semester in Oxford (Oxford, England). The Council for Christian Colleges and Universities presents a slice of British life and Oxford education to students participating in the Scholars’ Semester in Oxford. Academically strong students spend a semester participating in one-on-one tutorials with Oxford professors, as well as taking part in small group seminars. The Council director offers a

course that allows students to integrate faith and learning. Students participate in field trips to such places as Stratford-upon-Avon, Bath, the Cotswolds, Canterbury, and St. Augustine’s Abby that are designed to increase student understanding of British culture and society.

Student Visitor Program. A student may apply for a semester to study at any one of 12 other members of the Christian College Consortium. This option provides a unique opportunity to benefit from the resources of another Christian college while remaining a Messiah student.

Temple Rome (Rome, Italy). Explore the streets of Rome for a semester, amid historic architecture and famous sites dating from classical civilization! The program, run by Temple University, offers courses in history, literature, art, as well as art history. The program includes valuable excursions and activities that help students experience Italian culture and explore Rome’s rich heritage.

Uganda Studies Program (Kampala, Uganda). The Uganda Studies Program allows students to explore African culture while studying at a Ugandan Christian University. Students live in dorms with East African students (from locations such as Sudan, Congo, Rwanda, Burundi, Tanzania, and Kenya) and participate in service projects in orphanages and medical clinics. During the semester students will travel to historic sites, parks, and cities within the country.

Veritas South Korea (Seoul, South Korea) Students spend a semester in Seoul, South Korea studying at Korea University where they take classes with Korean and international students and travel to various location around South Korea, such as Jeju Island and Busan. Courses, which are taught in English, are available in a wide range of disciplines including business, chemistry, computing engineering, literature, math, media and communication, physics, psychology, and sociology. Students will participate in a service project and be partnered with a missions mentor.

GENERAL EDUCATION (QuEST)

Assistant Dean of General Education and Common Learning:

Robin Lauermann, Ph.D.

Administrative Assistant: Danielle McCoy

Director of the Core Course: James B. LaGrand

Director of Writing Across the Curriculum: Christine Perrin

Mission

The General Education program at Messiah College encourages the development of knowledge, skills, and attitudes of intellect, character, and faith that Christians use in lives of service, leadership, and reconciliation.

Purpose: Qualities Essential for Student Transformation (QuEST)

QuEST, Messiah College's general education program, serves as a curricular progression through which students develop skills, abilities and perspectives necessary to become collaborative agents in the contemporary workforce and society. This progression is intended to complement and parallel the academic majors in a way which allows students to respond with maturity to the world's complexities by raising important questions, exposing students to multiple perspectives and ways of knowing (i.e. arts, humanities, natural sciences, social sciences). In doing so, our curriculum encourages critical thinking and the application of knowledge from diverse disciplines, informed by faith and a sense of purpose, to relevant issues which shape our lives.

Program

QuEST offers an integration of courses and opportunities, appropriate for all students, which provides progression in developing competencies in the four General Education Learning Outcomes:

A. Abilities of the Liberal Arts foster the abilities to think, read, write and speak effectively. Individuals who develop these abilities are more flexible and adaptable to the changes of the world across the spectrum of different fields and life experiences. (9 credits)

1. First Year Seminar (3)
2. Created and Called for Community (3)
3. Oral Communication (3)

B. Knowledge of the Liberal Arts promotes awareness and insight of how people with different perspectives, beliefs and disciplines interpret reality and make meaning. Given that modern society and the workplace involve increasingly complex and global issues, students must develop a breadth of knowledge and the capability for action informed by context and purpose. (35 credits)

1. Mathematical and Natural Sciences (9)
 - Mathematical Sciences (3)
 - Laboratory Science (3)
 - Science, Technology, and the World (3)
2. Social Sciences and History (6)

One course from two of the following categories:

 - Social Science (3)
 - European History (3)
 - United States History (3)

3. Humanities and Arts (9)
 - Arts (3)
 - Literature (3)
 - Three credits of the following (3):
 - Religion (3)
 - Philosophy (3)
4. Languages and Culture (9) Messiah currently offers the following languages, which may be used to fulfill the General Education Languages and Cultures requirement: French, German, Greek, Hebrew, Latin, Spanish, and Chinese.

One of the following:

 - Two semesters of the same language (6) AND a Cross-cultural studies course (3) OR
 - Three semesters of the same language (9)
5. Non-Western Studies (2-3 credits)

C. Christian Faith encourages students to articulate and evaluate one's faith by gaining knowledge of the Bible's content and themes, including the biblical witness of service, leadership and reconciliation, and by understanding how different Christian faith traditions may shape beliefs. Students develop deeper commitments in service to God and to others as they explore connections between faith and learning. (6 credits)

1. Knowledge of the Bible (3)
2. Christian Beliefs (3)

D. Social Responsibility facilitates deepening self-awareness as students discern and develop their identity, gifts and vocation, as well as Christian character. These academic experiences empower students to act upon their knowledge and judgment through meaningful careers and lives that respond to the complexities of this world. (4 credits)

1. Wellness (1)
2. Engaging the Pluralistic World: *Three credits from the following (3):*
 - Ethics in the Modern World (3)
 - World Views (3)
 - Pluralism in Contemporary Society (3)

QuEST delivers an empowering education of broad knowledge as well as transferrable and enduring skills which free students to integrate their faith and learning, and to critically think and apply their knowledge to contemporary issues. Students customize their learning by choosing from a wide range of course topics within the above-listed objectives. QuEST education gives students an opportunity to experience engagement with the world so they grasp the practical, personal and moral significance of what they are learning. This is the best kind of preparation for work and life.

Interdisciplinary Courses

Interdisciplinary (ID) courses provide areas of integrated learning in which students wrestle with and address complex questions that face our society, and are woven throughout the curriculum. Throughout their QuEST, students will be challenged to answer these questions by examining different perspectives, theories and experiences in order to arrive at a more discerning conclusion. Students cultivate adeptness in navigating complexity and thinking holistically about these issues in order to reflect upon their own beliefs, as well as bridge values and assumptions of diverse perspectives. In turn, students are empowered to respond to unexpected and ever-changing realities they will encounter in life, work and society.

Interdisciplinary courses include:

IDFY 101/2 First Year Seminar
IDCR 151 Created and Called for Community
IDNW 2xx Non-Western Studies
IDCC 260 Cross-Cultural Studies
IDPL 3xx Pluralism in Contemporary Society
IDET 3xx Ethics
IDWV 3xx World Views
IDST 3xx Science, Technology and the World

Lists of specific courses meeting QuEST requirements, including those cataloged within specific departments which are approved to meet the ID course objectives, are identified in the course descriptions and are published each semester by the Office of the Registrar. Course titles and content in each category may vary from semester to semester.

Writing Across the Curriculum

Effective writing is a distinctive of the Messiah College education. The Writing Across the Curriculum Program (WAC) at Messiah College is composed of a College-wide community of teacher-scholars committed to the principle that writing is a fundamental mode of self-discovery, intellectual understanding, and human interaction. Therefore, the program is further committed to the principle that both the teaching of writing and the use of writing to further and disseminate human insight into the world around us is the responsibility of every educator. Courses which have a writing-enriched designation incorporate writing instruction and analytical assignments which require a minimum extent of pages as well as drafts to instill the skill of writing as a process.

The specific objectives of the WAC Program in terms of curriculum are outlined in other documents, but the fundamental mission of the WAC Program includes the following:

- To ensure that all students will graduate with abilities in writing that will enable them to communicate effectively with various audiences and in multiple writing situations.
- To encourage all students to understand and employ writing as a means of learning and self-discovery, and to encourage the use of writing as a means of life-long learning.
- To equip faculty members in their efforts to be more effective teachers of writing, and to promote the use of writing as a fundamental form of pedagogy across all disciplines.
- To nurture a culture of writing on campus that values and celebrates writing and reading in all areas of campus life.

The writing program at Messiah includes five classes: (1) the College Writing Workshop, (2) a First Year Seminar, (3) a writing laboratory, (4) Created and Called for Community (5) a writing-enriched course developed for the major (major-w).

College Writing Workshop. Although not a course required of the majority of our entering students, basic writing is an important element in any writing-across-the-curriculum program. It will both help students who have particular needs and will provide an important support supplement for those students in their First Year Seminar course. The hours it represents fall under the “elective” category in the General Education/Major/Elective scheme. This part of the writing program, for those of whom it is required, may be satisfied by completing IDWR 099 College Writing Workshop during the fall semester of the student's first year.

First Year Seminar. The seminar is the standard first-year writing experience in our program, and is consequently required of all students. While the content topics of each seminar vary widely, there is a substantially common approach to writing instruction and related assignments among the seminars. The requirement must be satisfied in the student's first year by completing one of the many First Year Seminars which are offered primarily during the fall semester. Students who do not complete First Year Seminar with at least a B- must take a writing assessment. Students who do not pass the writing assessment must take a 1 credit Writing Lab in the Spring semester.

The **Writing Laboratory** is designed to help those students who, after completing First Year Seminar, demonstrate the need for further writing instructions. All students who earn below a B- in First Year Seminar are required to take a writing assessment in the first weeks of the Spring semester. Students who fail that assessment will be required to take the writing lab.

Created and Called for Community. As part of Messiah's year-long sequence this course builds on the intellectual and writing skills developed during First Year Seminar in a common learning context. Students will complete assignments which use reflexive and transactional writing. The Writing Committee continues to give guidance to instructors teaching in Created and Called for Community. Transfer students who do not enter with an equivalent for FYS can waive the FYS requirement if they take CCC and demonstrate writing proficiency by earning an average of B- or better on the writing assignments.

Writing Enriched Course in the Major [Major-W]. The major course with writing emphasis is taken within the students' chosen disciplines and is intended for students to take subsequent to completion of First Year Seminar and Created and Called for Community; its primary purpose, in relation to writing, is to allow students to begin to acquire familiarity with the expectations of their own professional discourse communities. There is considerable variation in the kinds of courses into which various majors incorporate the writing emphases; each department is responsible for addressing this requirement as part of the academic major.

EXPERIENTIAL LEARNING

Beginning with students who matriculate in the fall of 2015, students have a common learning degree requirement to complete a minimum of one identified experiential learning activity from the following list of curricular and co-curricular categories: Internships/ Practica, Service Learning, Off-Campus Programs, Leadership or Undergraduate Research. All approved Experiential Learning Initiative (ELI) options include a minimum of 40 hours of applied experience.

Internships/Practica. All credit-bearing internships through the centralized Internship Program within the Career and Professional Development Center (CPDC) meet ELI requirements. Practica/field experiences that meet ELI within departments will be specifically designated.

Service Learning. All approved Service-Learning courses (SL) meet ELI requirements.

Off-Campus Programs. All approved semester-long programs and approved cross-cultural programs meet ELI requirements.

Leadership. Select student leadership experiences, for which students must apply, are approved to meet ELI.

Research. Research experiences that meet ELI within departments will be specifically designated. Quality undergraduate research or creative projects result in a project that has potential for peer reviewed dissemination in the form of presentation, publication, exhibition or performance.

As part of its distinctive, Messiah's ELI includes 1) a common reflection component that addresses the primary outcomes of career development and community engagement. In other words, experiential learning in light of the ELI will be augmented to allow students to be even more intentional and to cultivate greater connection and application of their learning to multiple contexts. 2) To facilitate this process, students participating in an ELI experience will have an educator-advisor whose role is to provide meaningful feedback toward the ELI-specific outcomes. As a result of engaging in the ELI, students will learn to articulate the tangible impact of their experience on their academic learning, personal and professional development, and community contributions. 3) To ensure that the ELI leads to the stated outcomes of career development and community engagement, students will be required to translate the learning from their reflection into a "deliverable" that is contextualized for an external audience relevant to the students' future goals (employer, graduate school, etc.). **Note: Students may not register for an ELI experience until they have completed at least 24 credits.**

INTERDISCIPLINARY MAJORS and MINORS

Biopsychology Major

The B.S. in Biopsychology prepares students who are interested in any of the following fields: medicine, psychiatry, clinical psychology, cognitive neuroscience, psychopharmacology, neuropsychology, behavioral genetics, experimental psychology, evolutionary psychology, or comparative psychology.

Most biopsychologists are trained experimental psychologists who have brought their knowledge of biology to the study of psychological phenomena. These phenomena include behavior and underlying psychological processes, such as learning, memory, perception, attention, motivation, emotion, and cognition.

In addition to the Biopsychology major as described above, Messiah also offers an accelerated 3+2 program in Biopsychology and Occupational Therapy in conjunction with Thomas Jefferson University. Students who meet the requirements **and** are accepted by Thomas Jefferson University either during their senior year of high school or at the end of their first year at Messiah College can complete three years of study at Messiah College and two years at Thomas Jefferson University to earn a B.S. in Biopsychology and an M.S.O.T. in Occupational Therapy.

Biopsychology Majors can choose from a variety of minors such as Bible, business, chemistry, communication, early childhood education, Christian ministries, gerontology, human development and family science, mathematics, sociology, criminal justice, or anthropology. Students in our majors are encouraged to spend a semester studying abroad and/or participate in a practicum or internship off campus. Opportunities are available for professionally supervised participation in medical research labs, community mental health centers, retirement facilities, hospitals, prisons, crisis intervention centers, drug and alcohol rehabilitation facilities, and other service agencies in the area.

Biopsychology (B.S.) (60-63 credits)

One of the following series of courses (11-13):

- A*. BIOL 160 Molecular and Cellular Biology (4)
BIOL 161 Animal Form and Function (3)
BIOL 162 Plant Form and Function (3)
BIOL 260 Genetics and Development (3)
- B. BIOL 185 Human Anatomy and Physiology I (4)
BIOL 186 Human Anatomy and Physiology II (4)
BIOL 189 Genetics for Health Professions (3)
PSYC 099 Writing for Psychology (1)

BIOL 387 Neuroscience (3)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

One of the following sets of courses (10-12):

- A. CHEM 204 Introduction to Organic Chemistry (4)

Six to eight credits from the following options:

- BIOL 313 Developmental Biology (3)
- BIOL 348 Animal Behavior (3)
- BIOL 382 Microbiology for Health Professions (4)
- BIOL 385 Physiology (4)
- BIOL 386 Human Anatomy (4)
- BIOL 412 Cell Biology (4)
- BIOL 418 Immunology (4)

- B. CHEM 309 Organic Chemistry I (4)
 CHEM 310 Organic Chemistry II (4)
Three to four credits from the following options:
 BIOL 313 Developmental Biology (3)
 BIOL 348 Animal Behavior (3)
 BIOL 382 Microbiology for Health Professions (4)
 BIOL 385 Physiology (4)
 BIOL 386 Human Anatomy (4)
 BIOL 412 Cell Biology (4)
 BIOL 418 Immunology (4)
 PSYC 101 Introduction to Psychology (3)
 PSYC 209/HDFS 209 Life Span Development (3)
 PSYC 272/HDFS 272 Introduction to Social Research (3)
Three credits from the following:
 PSYC 271 Statistical Methods in Psychology (3)
 STAT 269 Introductory Statistics (3)
Three credits from the following:
 PSYC 204 Cognition (3)
 PSYC 319 Abnormal Psychology (3)
 PSYC 350 Biological Basis of Behavior (3)
 PSYC 351 Sensation and Perception (3)
 PSYC 408 Experimental Psychology (3)
Three credits from the following:
 BIOL 495/CHEM 495 Capstone: Natural Sciences (3)
 PSYC 494 Psychology Seminar (3)
 *Encouraged but not required for students selecting option A: PSYC 099 Writing for Psychology.

Biopsychology (B.S.) Messiah College and Occupational Therapy (M.S.O.T.) Thomas Jefferson University (65-66 credits)

- BIOL 185 Human Anatomy and Physiology I (4)
 BIOL 186 Human Anatomy and Physiology II (4)
 BIOL 189 Genetics for Health Professions (3)
 BIOL 387 Neuroscience (3)
Three to four credits from the following courses:
 BIOL 313 Developmental Biology (3)
 BIOL 348 Animal Behavior (3)
 BIOL 382 Microbiology for Health Professions (4)
 BIOL 385 Physiology (4)
 BIOL 386 Human Anatomy (4)
Three credits from the following:
 BIOL 495/CHEM 495 Capstone: Natural Sciences (3)
 PSYC 494 Psychology Seminar (3)
 CHEM 105 General Chemistry I (4)
 CHEM 106 General Chemistry II (4)
 CHEM 204 Introduction to Organic Chemistry (4)
Note: Students will take 35–36 credits from the Biology and Chemistry component of the major.
 PSYC 101 Introduction to Psychology (3)
 PSYC 209/HDFS 209 Life Span Development (3)
 PSYC 272/HDFS 272 Introduction to Social Research (3)
 PSYC 350 Biological Basis of Behavior (3)
 PSYC 351 Sensation and Perception (3)
 PSYC 408 Experimental Psychology (3)
 PSYC 319 Abnormal Psychology (3)
 SOAN 342/HDFS 342/PSYC 342 Women and Men in American Society (3)
 STAT 269 Introductory Statistics (3)
Jefferson University Course Requirements (two years)
 OC 302 Applied Anatomy and Kinesiology (3)
 OC 311 Health and Health Conditions (3)

Digital Media Major

Students completing this program will be able to work effectively in a broad range of fields associated with Digital Media, bringing a Christian perspective to bear on the digital world they will be helping to create. Digital Media is a broadly defined field and the program is designed to familiarize students with that breadth. All students will take a core of courses, which introduce digital art and design, digital video, beginning computer programming, and digital sound design. The concentrations give the program depth in one specific area, and the free electives give students the option of exploring digital media in still greater depth, or combining their studies with another discipline. Each concentration is housed in its own department: Visual Art, Communication, Computer and Information Science, or Theatre. At the same time, all aspects of the program will focus on interactivity whether in video, animation, gaming, web design or other software applications.

Digital Media (B.A.) (63 credits)

Core requirements (48 credits)

- DIGM 1xx Foundations in Creative Digital Media (3)
 DIGM 2xx Video and Church Media Seminar (1)
 DIGM 2xx Game and Art Design Seminar (1)

Three credits from the following:

- ART 171 Foundations of Drawing (3)
 ART 182 Color and Design (3)
 ART 211 Computer Art and Imaging (3)
 ART 251 Photography (3)
 ART 282 Form Space and Media (3)

Three credits from the following:

- ART 236 Graphic Design and Visual Culture (3)
 ART 237 Typography and Visual Communication (3)

Three credits from the following:

- ART 336 Design for New Media (3)
 ART 338 Digital Illustration (3)
 ART 431 Motion Design (3)

Three credits from the following:

- ARTH 210 Topics in Non-Western Art (3)
 COMM 321 Global Indigenous Media (3)
 COMM 327 Latin American Cinema (3)

CIS 180 Introduction to Computer and Information Science (3)

CIS 181 Computer Programming I (3)

CIS 191 Web Development I: Client Side (3)

COMM 203 Basic Video and Editing Techniques (3)

COMM 217 Introduction to Film (3)

COMM 382 History and Theory of Digital Media (3)

DIGM 490 Senior Seminar and Project (4)

MUCM 353 Sound Design (3)

Six credits of Digital Media Electives (6)

One of the following concentrations:

Art and Design Concentration (15 credits)

Three credits from the following:

- ART 211 Computer Art and Imaging (3)
 ART 312 Digital Prints: Concepts and Structures (3)

Three credits from the following:

- ART 347 Publication Portfolio: Design as Service (3)
 ART 420 Designer as Author: Book Design, Zines (3)
 ART 337 Graphic Design and Professional Practice (3)

Six credits from the following:

- ART 336 Design for New Media (3)
 ART 338 Digital Illustration: Editorial and Narrative (3)
 ART 352 Digital Photography (3)
 ART 431 Motion Design: Video, Animation, Comm. (3)

Church Media Concentration (15 credits)

Three credits from the following:

CHRM 210 Theology of Ministry (3)

CHRM 242 Christian Spirituality (3)

THEA 150 Introduction to Technical Theatre and Design (3)

THEA 250 Stage Management (3)

THEA 350 Scenographic Techniques (3)

THEA 115 Production Practicum (1 cr per semester for 3 credits)

Digital Video and Story Concentration (15 credits)

COMM 220 Film and HD Production I (3)

COMM 254 Screenwriting I (3)

COMM 317 Advanced Editing and Effects (3)

COMM 328 Methods and Issues in Film Studies (3)

COMM 341 Communication Theory (3)

Mobile Applications and Game Design Concentration (15 credits)

CIS 284 Computer Programming II (3)

CIS 287 Introduction to Game Design (3)

CIS 291 Web Development II: Server Side (3)

CIS 315 Introduction to Mobile Application Design (3)

CIS 381 Information Systems and Managers (3)

Digital Media Electives:

In addition to other digital media electives listed below, students in the church media concentration are encouraged to consider taking additional courses in Christian Ministries from the menu below:

CHRM 242 Christian Spirituality (3)

CHRM 323 Worship (3)

RELI 344 History of Christianity (3)

THEO 239 Christian Theology II: Nature & Mission (3)

ART 171 Foundations of Drawing (3)

ART 182 Color and Design (3)

ART 211 Computer Art and Imaging (3)

ART 236 Graphic Design and Visual Culture (3)

ART 237 Typography and Visual Communication (3)

ART 251 Photography (3)

ART 312 Digital Prints: Concepts and Structures (3)

ART 336 Design for New Media (3)

ART 337 Graphic Design and Professional Practice (3)

ART 338 Digital Illustration: Editorial and Narrative (3)

ART 347 Publication Portfolio: Design as Service (3)

ART 352 Digital Photography (3)

ART 420 Designer as Author: Books, Zines (3)

ART 431 Motion Design: Video, Animation, Communication (3)

ARTH 150 Art History I (3)

ARTH 151 Art History II (3)

ARTH 209 History of Modern Art (3)

ARTH 309 Contemporary Art: 1945 - Present (3)

CIS 284 Programming II (3)

CIS 287 Introduction to Game Design (3)

CIS 291 Web Development II: Server Side (3)

CIS 315 Introduction to Mobile Application Design (3)*

CIS 332 Database Concepts (3)*

CIS 381 Information Systems/Managers (3)

CIS 385 Data Structures and Algorithms (3)*

CIS 432 Database Applications (3)*

COMM 205 Principles of Public Relations (3)

COMM 218 Mass Media and Society (3)

COMM 220 Film and HD Production I (3)

COMM 251 Film History I: 1895 - 1960 (3)

COMM 252 Film History II (3) 1960 - Present (3)

COMM 254 Screenwriting I (3)

COMM 255 Screenwriting II (3)

COMM 310 Fundraising (3)

COMM 317 Advanced Editing and Effects (3)

COMM 328 Methods and Issues in Film Studies (3)

COMM 341 Communication Theory (3)

COMM 342 Intercultural Communication (3)

COMM 353 Crisis Communication and Media Relations (3)

COMM 357 Event Planning (3)

COMM 363 Documentary and Promotional Film Production (3)

COMM 380 Advanced Topics in Film Production (3)

INTE 391 Internship (1-3)

INTE 394 Internship (4-12)

THEA 115 Production Practicum (1)

THEA 150 Intro to Technical Theatre and Design (3)

THEA 250 Stage Management (3)

THEA 350 Scenographic Techniques (3)

*Requires prerequisite(s), may increase the total credits required.

Ethnic and Area Studies Major

Director: Bernardo Michael

The mission of the Ethnic and Area Studies Major is to develop a multidisciplinary understanding of culture and in-depth knowledge of at least one culture or a cultural/racial/ethnic tradition so that students can apply this knowledge in church and society to become effective agents of social justice and reconciliation. Students take a shared set of courses from multiple disciplines to develop a broad understanding of culture and also choose a concentration in a particular ethnic/geographic area to complete a total of 36 credits. Students are strongly encouraged to seek out appropriate cross-cultural/study abroad experiences in their particular area of study.

Ethnic and Area Studies (B.A.) (36 credits)

Core requirements (21 credits)

COMM 342 Intercultural Communication (3)

Three credits from the following:

HIST 324 European Imperialism and Its Legacies (3)

POLI 320 Ethnic and Racial Politics in America (3)

HEAS 490 Senior Thesis (3)

SOAN 212 Cultural Anthropology (3)

SOAN 335 Social Conflict, Justice and Peacemaking (3)

SOAN 356 Social Inequality (3)

THEO 223 Global Christian Theology (3)

One of the following concentrations:

African and African American Studies concentration

Fifteen credits from the following:

ENGL 330 American Literature Before 1900 (3),

ENGL 340 American Literature After 1900 (3) **or**

ENGL 154 Intro to Ethnic U.S. Literatures of the U.S. (3)

ENGL 160 Introduction to World Literature (3) **or**

ENGL 350 Postcolonial Literature (3)*

HIST 352 African-American History Since 1865 (3)

HIST 381 History of Africa (3)

HIST 383 South Africa (3)

INTE 391 Internship (3)

RELI 329 Christianity in Africa (3)

THEO 207 African-American Theology (3)

*Requires certification from the instructor that the course will focus significantly on African or African American literature

Asian Studies concentration 15 credits from the following:

- HIST 371 Premodern Civilizations of Asia (3)
- HIST 372 Modern Civilizations of Asia (3)
- HIST 373 History of India before 1500 (3)
- HIST 374 History of Modern India and Pakistan (3)
- HIST 375 Gandhi's India (3)
- INTE 391 Internship (3)
- PHIL 318 Asian Philosophy (3)
- RELI 332 Christianity in Asia (3)
- RELI 333 Religions of India (3)
- RELI 334 Religions of China and Japan (3)

Note: Students may take topics courses in COMM, ENGL, or IDNW that instructors certify will have a significant component of Asian Studies emphasis.

U.S. Ethnic Studies concentration 15 credits from the following:

- EDUC 346 Socio-Cultural Perspectives on Education (3)
- ENGL 154 Introduction to Ethnic Literatures of the U.S. (3)
- ENGL 330 American Literature Before 1900 (3)
- ENGL 340 American Literature After 1900 (3)
- HDFS 386 Family Ethnicity and Human Services (3)
- HIST 351 Native American History (3)
- HIST 352 African-American History Since 1865 (3)
- HIST 353 Immigrant America (3)
- HIST 355 U.S. Urban History (3)
- INTE 391 Internship (3)
- MUMH 338 Studies in Global Music (3)
- SOAN 221 Native American Cultures (3)
- THEO 207 African-American Theology (3)

Ethnic and Area Studies Minor (18 credits)

COMM 342 Intercultural Communication (3)

Three credits from the following:

- HIST 342 European Imperialism and its Legacies (3)
- POLI 320 Ethnic and Racial Politics in America (3)
- SOAN 212 Cultural Anthropology (3)
- THEO 223 Global Christian Theology (3)

Six credits from the following:

- EDUC 346 Multicultural Perspectives on Education
- ENGL 350 Postcolonial Literature* (3)
- ENGL 330 American Literature Before 1900* (3)
- ENGL 340 American Lit. After 1900** (3)
- HDFS 386 Family Ethnicity and Human Services (3)
- HIST 351 Native American History (3)
- HIST 352 African-American History Since 1865 (3)
- HIST 353 Immigrant America (3)
- HIST 355 U.S. Urban History (3)
- HIST 371 Premodern Civilizations of Asia (3)
- HIST 372 Modern Civilizations of Asia (3)
- HIST 373 History of India before 1500 (3)
- HIST 374 History of Modern India and Pakistan (3)
- HIST 375 Gandhi's India (3)
- HIST 381 History of Africa (3)
- HIST 383 South Africa (3)
- MUMH 338 Studies in Global Music (3)
- PHIL 318 Asian Philosophy (3)
- RELI 329 Christianity in Africa (3)
- RELI 332 Christianity in Asia (3)
- RELI 333 Religions of India (3)
- RELI 334 Religions of China and Japan (3)
- SOAN 335 Social Conflict, Justice and Peacemaking (3)
- SOAN 356 Social Inequality (3)

*Requires certification from the instructor that the course will focus significantly on African literature.

Peace and Conflict Studies

Director: George Pickens

Mission. This is an interdisciplinary major drawing upon resources from three core departments: Biblical and Religious Studies; History; and Sociology, Anthropology and Criminal Justice. The primary focus of this major is to help students understand and appreciate the Christian foundations for peacemaking/ reconciliation; to understand the nature of conflict and nonviolent approaches to resolving conflict; to understand the relationship of justice to peacemaking, and to become actively involved in peacemaking, nonviolent conflict resolution, and reconciliation. This major enables students to pursue careers and graduate study in peace and conflict studies and related fields including law and mediation.

Curriculum. The core disciplines of the major – Biblical and Religious Studies, History, and Sociology, Anthropology and Criminal Justice – are essential to understanding and resolving conflict, since in order to achieve reconciliation it is crucial to understand conflict holistically. To this end, in the PACS core there are courses directly related to peace and conflict studies in each of these disciplines, and then to further develop disciplinary perspectives and methods, students will take at least one course in five “spheres” of human experience where peace and conflict are experienced.

To further develop students’ skills, perspectives, and experience, each PACS major is required to take Basic Conflict Mediation and an internship or practicum that will enable them to practice their skills in a specific arena. Students are also strongly encouraged to study off-campus for a semester in order to build their skills and experience a culture different from their own. The Senior Seminar, which is the capstone course, enables students to bring together all the disciplinary and experiential work that they have done and integrate it into a whole that will enable them to successfully pursue peace and conflict studies as a vocation.

Peace and Conflict Studies (B.A.) (36 credits)

- BIBL 291 Issues of War, Peace, & Social Justice in Biblical Texts (3)
- HIST 391 Historical Study of Peace (3)
- PACS 201 Basic Conflict Mediation (3)
- PACS 495 Senior Seminar in Peace and Conflict Studies (3)
- SOAN 335 Social Conflict, Justice, and Peacemaking (3)
- THEO 227 Theology, Violence and Non-Violence (3)

Three credits from the following Experiential Learning courses:

- INTE 391 Internship (in area relevant to the major) (3)
- PACS 391 Practicum in Peace and Conflict Studies (3)
- CHRM 227 Pre-Field Experience Cross-Cultural Ministry (3)
AND CHRM 393 Post-Field Experience for Cross-Cultural Ministry (2)
- SERV 231 AND SERV 232 Foundations of Service, Mission, and Social Change I (3) AND II (1)

Sphere 1: Religious and Theological. *Three credits from the following:*

- CHRM 352 Topics in Cross-Cultural Ministries: Muslim-Christian Relations (3)
- RELI 205 or RELI 206 Religions of the World (3)
- RELI 228 Judaism (3)
- RELI 229 Islam (3)
- RELI 321 Christianity in Latin America (3)
- RELI 329 Christianity in Africa (3)
- RELI 332 Christianity in Asia (3)
- RELI 333 Religions of India (3)

RELI 334 Religions of China and Japan (3)
 RELI 335 Gender and Christianity (3)
 RELI 366 Topics in Religion: Religion & Global Conflicts (3)
 THEO 207 African-American Theology (3)
 THEO 209 Anabaptist Theology (3)
 THEO 211 Brethren in Christ Life and Thought (3)
 THEO 219 Theology and Christian Unity (3)
 THEO 221 Faith and Society (3)
 THEO 223 Global Christian Theology (3)
 THEO 305 Christian Theology of Religious Pluralism* (3)
 THEO 354 Theology and Gender (3)

Sphere 2: Ecological and Economic. *Three credits from the following:*

BIOL 140/SUST 140 Ecology and Sustainability (3)
 BIOL 216 Environmental Issues and Sustainable Solutions (3)
 BIOL 315 Environmental Ethics (3)
 ECON 110 Economics of Social Issues (3)
 ECON 117 Issues in Environmental Economics (3)
 ECON 120 Principles of Macroeconomics (3)

Sphere 3: Political and Institutional. *Three credits from the following:*

CRIJ 101 Introduction to Criminal Justice (3)
 CRIJ 282 Restorative Justice (3)
 POLI 212 International Politics (3)
 POLI 214 Constitutional Law: Governmental Powers and Constraints (3)
 POLI 222 Politics in Latin America (3)
 POLI 315 United States Foreign Policy (3)
 POLI 316 Constitutional Law: Civil Liberties & Civil Rights (3)
 POLI 320 Ethnic and Racial Politics in America (3)
 POLI 330 Terrorism (3)
 POLI 362 Theories of International Relations (3)

Sphere 4: Social-Cultural. *Three credits from the following:*

COMM 342 Intercultural Communication (3)
 COMM 354 Interpersonal Conflict (3)
 HDFS 386 Family Ethnicity and Human Services (3)
 SOAN 305 Harrisburg Neighborhoods (3)
 SOAN 315 Urban Sociology (3)
 SOAN 341 Religion and Society (3)
 SOAN 342 Women & Men in American Society (3)
 SOAN 356 Social Inequality (3)
 SOWK 420 Social Welfare Policy and Social Change (3)
 THEA 363 Theatre for Social Change (3)

Sphere 5: Historical. *Three credits from the following:*

HIST 312 The Trial of Joan of Arc (3)
 HIST 314 The Crusading Movement (3)
 HIST 320 Renaissance and Reformation Europe (3)
 HIST 322 Modern Europe: 1789-1918 (3)
 HIST 323 Europe in the 20th Century (3)
 HIST 351 Native American History (3)
 HIST 352 African-American History Since 1865 (3)
 HIST 372 Modern Civilizations of Asia (3)
 HIST 374 History of Modern India and Pakistan (3)
 HIST 375 Gandhi's India: 1869-1948 (3)
 HIST 379 History of the Middle East (3)
 HIST 381 History of Africa (3)
 HIST 383 South Africa: Struggle for Freedom (3)
 HIST 392 Women and Gender in History (3)

*Requires prerequisite(s), may increase the total credits required.

Peace and Conflict Studies Minor (18 credits)

BIBL 291 Issues of War, Peace, & Social Justice in Biblical Texts (3)
 HIST 391 Historical Study of Peace (3)
 SOAN 335 Social Conflict, Justice, and Peacemaking (3)
 THEO 227 Theology, Violence and Nonviolence (3)

Three credits from the following:

COMM 342 Intercultural Communication (3)
 COMM 354 Interpersonal Conflict (3)
 ECON 312 Economic Development* (3)
 PACS 201 Basic Conflict Mediation (3)
 PHIL 325 Moral Problems (3)
 POLI 212 International Politics (3)
 POLI 315 United States Foreign Policy (3)
 POLI 320 Ethnic and Racial Politics in America (3)
 PYSC 242 Community Psychology (3)
 SOAN 356 Social Inequality (3)
 THEA 363 Theatre for Social Change (3)
 An appropriate discipline-based "Topics" course (with approval of Peace and Conflict Studies Committee)

Three credits from the following:

INTE 391 Internship (in Peace and Conflict Studies) (3)
 PACS 391 Practicum in Peace and Conflict Studies (3)
 PACS 491 Independent Research in Peace and Conflict Studies (3)

*Requires prerequisite(s), may increase the total credits required.

Sustainability Studies Major

Director: Brandon Hoover

Mission: Sustainability Studies is an interdisciplinary major in an emerging field for those determined to make a practical difference in the world as students and beyond. It combines elements of the social sciences, politics, environmental sciences and community development in both urban and rural settings. The major requires a core curriculum; a chosen concentration in Sustainable Public Policy, Community and Urban Development, or Sustainable Agriculture; and a practicum experience in the form of an internship employing the skill learned in the curriculum. Students completing this major will have the theoretical basis, skills, and experience needed to enhance the environmental, economic and social sustainability in the church and society.

Sustainability Studies (B.A.) (51-52 credits)

Core requirements (30 credits)

BIOL 140/SUST 140 Ecology and Sustainability (3)
 BIOL 216 Environmental Issues and Sustainable Solutions (3)
 BIOL 315 Environmental Ethics (3)
 ECON 117 Issues in Environmental Economics (3)
 GIS 245 Introduction to Geographic Information Systems (3)
 POLI 113 American Government (3)
 SOAN 305 Harrisburg Neighborhoods (3)
 SOAN 315 Urban Sociology (3)
 STAT 269 Introduction to Statistics (3)
 SUST 495 Sustainability Seminar (3)

One of the following concentrations:

Community and Urban Development (21-22 credits)

ECON 120 Principles of Macroeconomics (3)
HIST 355 U.S. Urban History (3)
POLI 323 Public Policy (3)
PSYC 242 Community Psychology (3) [SOAN 101 prerequisite]

Three credits from the following:

POLI 320 Ethnic and Racial Politics in America (3)
SOAN 356 Social Inequality (3)

Three credits from the following:

SOAN 101 Introduction to Sociology (3)*
SOAN 212 Cultural Anthropology (3)

Three or four credits from the following:

INTE 394 Internship (4)
SOAN 391 Practicum (3)

*SOAN 101 is the prerequisite for PSYC 242.

Sustainability Public Policy (21-22 credits)

ECON 120 Principles of Macroeconomics (3)
POLI 212 International Politics (3)

Three credits from the following:

ECON 312 Economic Development* (3)
POLI 213 Comparative Politics (3)

POLI 243 Political Research Methods (3)
POLI 323 Public Policy (3)

Three credits from the following:

HIST 355 U.S. Urban History (3)
SOAN 212 Cultural Anthropology (3)

Three or four credits from the following:

INTE 394 Internship (4)
POLI 391 Practicum (3)

*Requires prerequisite(s), may increase the total credits required.

Sustainable Agriculture (21-22 credits)

BIOL 162 Plant Form and Function (3)
BIOL 334 Plant Ecology (4)
BIOL 335 Plant Propagation (3)
CHEM 103 Chemical Science (3)

Four credits from the following:

Biol/Agric/Geog 303 Ecological Agriculture (ASI) (4)
Biol/Agric/Geog 343 Tropical Agriculture and Missions (ASI)

Three or four credits from the following:

BIOL 391 Practicum (3)
INTE 394 Internship (4)

Sustainability Studies Minor (21 credits)

BIOL 140/SUST 140 Ecology and Sustainability (3)
BIOL 216 Environmental Issues and Sustainable Solutions (3)
BIOL 315 Environmental Ethics (3)
ECON 117 Issues in Environmental Economics (3)
POLI 113 American Government (3)

Three credits from the following:

GIS 245 Introduction Geographic Information Systems (3)
POLI 323 Public Policy (3)

SOAN 305 Harrisburg Neighborhoods (3)

Digital Public Humanities Minor (18 credits)

HUMA 205 Digital Public Humanities (1)

Six credits from the following Digital Public Humanities courses:

COMM 217 Introduction to Film (3)
COMM 330 Multimedia Storytelling (3)
COMM 382 History and Theory of Digital Media (3)
HIST 393 Public History (3)
HIST 394 Digital History (3)

Three credits from a designated upper-level DPH course.*

Six credits from the following Digital Skills courses**:

Digital Media and Design:

ART 211 Computer Art and Imaging (3)
ART 236 Graphic Design and Visual Culture: Seeing, Thinking, Making (3)
ART 237 Typography and Visual Communications (3)
ART 312 Digital Prints: Concepts and Structures (3)
ART 336 Design for New Media (3)***
ART 338 Digital Illustration (3)***
ART 352 Digital Photography (3)***

Computer and Information Science:

CIS 181 Computer Programming (3)
CIS 191 Web Development I: Client Side (3)
CIS 284 Computer Programming II (3)***
CIS 287 Introduction to Game Design (3)***
CIS 291 Web Development II: Server Side (3)***
GIS 245 Geographic Information Systems (3)

Film and Video:

COMM 203 Basic Video and Editing Techniques (3)
COMM 207 Communication Design (3)
COMM 363 Documentary and Promotional Film (3)***

Five credits of Humanities Projects distributed over at least two academic terms:

HUMA 220 Humanities Projects I (1-2)
HUMA 320 Humanities Projects II (1-3)
HUMA 420 Humanities Projects III (2-3)

*See the Digital Public Humanities coordinator for complete list of DPH-designated courses.

**Students may select any of the following courses to fulfill these six credits, but are encouraged to choose one of the following chosen digital tracks

***These courses require additional prerequisites, which would increase the total credits required for the minor.

Gender Studies Minor (18-21 credits)

HDFS 244 Human Sexuality (3)
HDFS 342/PSYC 342/SOAN 342 Women and Men in American Society (3)
SOAN 356 Social Inequality (3)

Nine credits and a minimum of three courses from the following:

ENGL 144 Nineteenth-Century British Women Writers (3)
ENGL 370c Feminist Literature and Theory (3)
HDFS 101 Foundations of Marriage and Family (3)
HDFS 340 Ethics and Families (3)
HIST 392 Women and Gender in History (3)
INTE 394 Internship (4-6) or INTE 391 Internship (1-3) (Must be approved by Minor Advisor)
POLI 360* Women, Family and Politics (3)
SOAN 384/HDFS 384 Families in America (3)
THEO 354 Theology and Gender (3)

Note: Appropriate course substitutions may be made upon the approval of the Gender Studies Minor advisor.

Leadership Minor (21 credits)

Provides a curricular component in the effort to prepare students for leadership roles in church and society. All students are encouraged to consider taking courses in the area of leadership.

BUSA 120 Principles of Management (3)

Three credits from the following:

COMM 301 Persuasion: Theory and Practice (3)

COMM 333 Business and Organizational Communication (3)

COMM 353 Crisis Communication and Media Relations (3)

HRM 311 Organizational Behavior (3)

LEAD 312/HRM 312 Leading Organizational Change (3)

Three credits from the following:

LEAD 310 Leadership Theory and Development (3)

ADED 301 Leadership Group Dynamics (3)*

Three credits from the following:

LEAD 320 Issues and Challenges in Leadership (3)

CHRM 330 Organization and Leadership for Ministry (3)*

LEAD 391 Leadership Practicum (3)

*Requires prerequisite(s), may increase the total credits required.

Note: Appropriate course substitutions may be made with the approval of the Department of Business.

Pre-Counseling and Therapy Minor (21 credits)

Three credits from the following:

HDFS 101 Foundations of Marriage and Family (3)

PSYC 101 Introduction to Psychology (3)

HDFS 339 Dynamics of Family Interaction (3)

PSYC 319 Abnormal Psychology (3)

PSYC 323 Counseling Theories (3)

PSYC 423 Counseling Skills (3)

Two of the following:

GERO 218/HDFS 218 Death, Grief and Caring (3)

HDFS 244 Human Sexuality (3)

HDFS 320 Play and Development (3)

HDFS 345 Parenting (3)

HDFS 355 Marital Relationships (3)

HDFS 411 Marriage and Family Therapy (3)

HDFS 391 Family Service Practicum (3)

PSYC 209/HDFS 209 Lifespan Development (3)

PSYC 241 Group Dynamics (3)

PSYC 324 Personality (3)

PSYC 365 Drug and Alcohol Addiction (3)

PSYC 391 Psychology Practicum (1-3)

Urban Studies Minor (18 credits)

SOAN 315 Urban Sociology (3)

Theories and Concepts *Three credits from the following:*

ECON 312 Economic Development* (3)

HIST 355 U.S. Urban History (3)

SOAN 331 Sociocultural Theory (3)

SOAN 356 Social Inequality (3)

Issues *Three credits from the following:*

BIOL 216 Issues in Environmental Science (3)

CRIJ 309 Juvenile Delinquency* (3)

ECON 110 Economics of Social Issues (3)

ECON 120 Principles of Macroeconomics (3)

ECON 117 Issues in Environmental Economics (3)

EDUC 346 Socio-Cultural Perspectives on Education (3)

HDFS 253 Community Services for Families* (3)

HDFS/PSYC/SOAN 342 Women and Men in American Society (3)

HDFS 386 Family Ethnicity and Human Services (3)

POLI 320 Ethnic and Racial Politics in America (3)

POLI 323 Public Policy* (3)

PSYC 242 Community Psychology* (3)

SOWK 420 Social Welfare Policy and Social Change

THEA 363 Theatre for Social Change (3)

Research Methods *Three credits from the following:*

POLI 243 Political Research Methods (3)

SOAN 271 Quantitative Research Methods and Statistics* (3)

SOAN 281 Qualitative Research Methods (3)*

SOWK 385 Introduction to Research in Social Work (3)

Applications *Three credits from the following:*

INTE 391 Internship (1-3)

INTE 394 Internship (4-12)

SOAN 305 Harrisburg Neighborhoods (3)

SERV 231/SERV 232 Foundations of Service, Mission and Social Change Internship (3)

Theological Reflections *Three credits from the following:*

BIBL 291 Issues of War, Peace and Social Justice in Biblical Texts (3)

IDCC 260 Urban Cross-Cultural (3)

SOAN 341 Religion and Society (3)

THEO 207 African-American Theology* (3)

THEO 221 Faith and Society* (3)

THEO 225 Practical Theology of the Urban Church* (3)

*Requires prerequisite(s), may increase the total credits required.

School of the Arts

Dean: Richard E. Roberson, D.M.A.

Administrative Assistant: Deborah Hawkins

Developing artistic passion to positively impact the world.

The School of the Arts fosters excellence through artistic practice and scholarship in a Christian environment. The School of the Arts:

- trains artists through a balance of discipline and exploration.
- develops students towards professional artistry and cultivates aesthetic integrity through critical dialogue.
- grounds students in the history and traditions of their discipline.
- utilizes historical perspectives as a point of departure for individual growth.
- engages the student with experiences in and beyond the classroom.
- collaborates with a wide variety of arts organizations locally, nationally, and internationally.
- encourages analytical, reflective, and expressive responses to the Christian faith through artistic mediums.
- orients students to serving the community through the arts.

The following academic departments and programs are housed in the School of the Arts:

- Department of Music
- Department of Theatre and Dance
- Department of Visual Arts
- Digital Media major
- The Performing Messiah College Performing Arts Series
- The Messiah College Theatre Season
- The High Center, Climenhaga, and Aughinbaugh Galleries

MUSIC

Department Co-Chairs: Timothy D. Dixon, William J. Stowman

Administrative Assistant: Kelly Athey

Professors: T. Dixon, T. Goranson, R. Roberson, W. Stowman

Associate Professors: R. Cornacchio, P. Ewoldt, M. Harcrow, D. Savarino

Assistant Professors: J. Colonna, E. Forst, T. Weller

Artist in Residence: L. Tedford

Senior Lecturers: E. Henderson, R. Zwally

Majors and Minors

The Department of Music offers the following majors:

Music (B.A.) *with concentrations in:*

Commercial Music

Composition

Music (Business) (B.A.)

Music (Music and Worship) (B.A.)

Music Education with K-12 Teaching Certification (B.S.)

Music Performance (Bachelor of Music in Performance)

The Department of Music offers minors in Music and Music and Worship.

Program Requirements

The Music (B.A.) curriculum offers a basic education in music with two options for concentration: Commercial Music, or Composition. In addition, this degree offers the opportunity to minor in a non-music area. The Music Education major leads to Pennsylvania certification to teach all areas of music in public schools. The Music Performance major gives students the opportunity to focus on performance skills. The Music (Business) major combines music training with a basic training in business, and prepares students to work in an arts non-profit organization. Music (Music and Worship) prepares students to lead worship ministry through music in a local church.

Music Application and Audition. An audition is required of all students who wish to major in music. After acceptance into the College as an entering student, a prospective music major should schedule a music audition through the Music Office. Specific audition requirements vary based on intended degree, concentration and major performing area. Please visit www.messiah.edu/music for a complete detailed listing of audition requirements. From the Department of Music homepage, choose “Prospective Students.”

Concert Attendance and Performance Expectations. Each semester in residence, all music majors, with the exception of Music (Business) and Music (Music and Worship), are required to register for MUSI 001 Concert Attendance. This is a period devoted to solo and small group performance. At the beginning of each semester, students will be given a schedule of Wednesday meetings of Concert Attendance (generally 6 per semester) which students are required to attend, and at which, attendance will be taken. Additionally, students will be required to choose and attend any 8 departmentally approved performances (in which they are not a performer) each semester. All music majors, except those in the Music (Business) and Music (Music and Worship) degrees, will also perform a jury in their applied performance area at the end of each semester in which they are registered for applied lessons.

Keyboard Proficiency Policy. All music majors, except those in the Music (Business) and Music (Music and Worship) degrees, will register for Keyboard I in order to prepare for the Piano Proficiency Exam. Students who successfully pass the Piano Proficiency Exam at the end of the Fall semester will fulfill the other keyboard credit with any music course. Students who do not pass (or attempt) the Piano Proficiency exam in the fall will register for Keyboard II in the Spring semester. Students who do not pass the Piano Proficiency Exam at the end of the Spring Semester, will register for MUAP Piano lessons until the exam is passed at the end of their Sophomore year or second year as a music major. Students are allowed three attempts to pass the Piano Proficiency Exam.

Music Ensemble Requirements. All Music Majors (B.A./B.S./B.M) are required to earn a specific number of credits in music ensembles (MUEN) to fulfill graduation requirements, based on degree type and concentration.

<u>Major</u>	<u>MUEN credits required</u>
Music (B.A.)	6
Music (Business) (B.A.)	.5
Music Education (B.S.)	6
Music (Music and Worship) (B.A.)	3
Music Performance (B.M.)	8

Additionally, most majors require a particular distribution of MUEN participation, based on major, concentration and applied performance area.

Composition Concentration of the Music B.A.:

MUEN xxx Primary Performing Ensemble (based on applied performance area)* 6 semesters
 MUEN xxx Any Vocal or Instrumental Ensembles* 6 semesters
 *requirement fulfilled in consultation with composition professor and major advisor

Commercial Concentration and students without a concentration for the Music B.A. and for the Music Education B.S.:

Distribution dependent on applied performance area

Keyboard applied performance area:

MUEN 125 Accompanying 3 semesters
 MUEN 146 Piano Four Hands 2 semesters
 MUEN Any Instrumental Ensemble 2 semesters
 MUEN Any Vocal Ensemble 3 semesters
 MUEN Any Chamber Music Ensemble 2 semesters

Voice applied performance area:

MUEN 111 Concert Choir* 8 semesters
 MUEN 112 Choral Arts Society 1 semester
 MUEN Any Instrumental Ensemble 2 semesters
 MUEN Any Music Department Ensemble 1 semester
 *if not accepted into Concert Choir, requirement fulfilled by; Men's Ensemble, Women's Ensemble, Jazz Singers or an extra semester of Choral Arts Society.

Orchestral String applied performance area:

MUEN 121 Symphony Orchestra 8 semesters
 MUEN Vocal Ensemble* 2 semesters
 MUEN Any Chamber Music Ensemble 2 semesters

Wind/Brass/Percussion applied performance area:

MUEN 122/135 Wind Ens./Symphonic Winds 8 semesters
 MUEN Vocal Ensemble* 2 semesters
 MUEN Any Chamber Music Ensemble 2 semesters
 *includes: Concert Choir, Men's or Women's Ensemble

Guitar applied performance area:

MUEN 130 Guitar Ensemble 8 semesters
 MUEN Any Vocal Ensemble 2 semesters
 MUEN Any Department Ensembles 2 semesters

Music (Business) B.A. Any MUEN course.

Music (Music & Worship) (B.A.) Three credits in MUEN 156.

Music Performance (B.M.) The same distribution of 6 credits as the Music (B.A.) major, with an additional 2 credits in any MUEN.

Change of Applied Performance Area. Students wishing to change their applied area of study must re-audition in the new applied area. A student may surrender departmental scholarship money for the original applied area based on the results of the audition in the new applied area.

Visit www.messiah.edu/music for a complete detailed listing of departmental and degree requirements. From the Department of Music homepage, choose "Current Students."

Music Performance (B.M.) (78 credits)

MUAP 1xx Applied Music (4 hours/semester) (32)

MUEN xxx Ensembles (8)

Three credits from the following:

MUSI 343 Piano Pedagogy (3)
 MUSI 344 Instrumental Pedagogy (3)
 MUSI 452 Vocal Pedagogy (3)

Junior Recital (solo preferred; may be joint with faculty permission)

Senior Recital (solo only)

One credit from the following:

MUED 140 Voice Class (1) (all majors except voice)
 MUED 240 Diction for Singers (1) (all voice majors)

MUED 251 Conducting I: Fundamentals (2)

Two credits from the following:

MUED 351 Conducting II: Choral (2)
 MUED 352 Conducting II: Instrumental (2)

MUMH 303 History of Music I (2)

MUMH 304 History of Music II (3)

MUMH 305 History of Music III (3)

MUMH 338 Studies in Global Music (2)

MUSI 001 Concert Attendance (0)

MUSI 291 Coaching Techniques (1)

One credit from the following:

MUSI 301 Vocal Literature (1)
 MUSI 302 Instrumental Literature (1)
 MUSI 303 Keyboard Literature (1)

MUSI 481 Senior Seminar in Music (1)

MUTH 101 Music Theory I (3)

MUTH 102 Music Theory II (3)

MUTH 107 Sight Singing and Ear Training I (1)

MUTH 108 Sight Singing and Ear Training II (1)

MUTH 109 Keyboard I (1)

MUTH 110 Keyboard II (1)

MUTH 201 Music Theory III (3)

MUTH 202 Music Theory IV (3)

MUTH 207 Sight Singing and Ear Training III (1)

Piano Proficiency Exam

Music Education with K-12 Teaching Certification (B.S.) (101 cr.)

MUAP xxx Applied Music (12)
MUED 201 Intro to Music Education (.5 Special Education) (1)
MUED 211 String Class (1)
MUED 221 Percussion Class (1)
MUED 222 Brass Class (1)
MUED 251 Conducting I: Fundamentals (2)
MUED 301 Curriculum and Instruction: 6-12 Choral Music (with Field Experience .5 Special Education) (3)
MUED 311 Woodwind Class (1)

Two credits from the following:

MUED 351 Conducting II: Choral (2)
MUED 352 Conducting II: Instrumental (2)
MUED 401 Curriculum and Instruction: Instrumental Music 4-12 (with Field Experience) (3)
MUED 402 Curriculum and Instruction: K-5 General Music (with Field Experience/.5 Special Education) (3)
MUED 407 Student Teaching Seminar (1)
MUEN xxx Music Ensembles (6)
MUMH 303 History of Music I (2)
MUMH 304 History of Music II (3)
MUMH 305 History of Music III (3)
MUMH 338 Studies in Global Music (2)
MUSI 001 Concert Attendance

Three credits from the following options:

- A. MUED 140 Vocal Class (1) **and**
Two credits of MUSI electives (2)
- B. MUSI 452 Vocal Pedagogy (3)

MUSI 481 Senior Seminar (1)
MUTH 101 Music Theory I (3)
MUTH 102 Music Theory II (3)
MUTH 107 Sight Singing and Ear Training I (1)
MUTH 108 Sight Singing and Ear Training II (1)
MUTH 109 Keyboard I (1)
MUTH 110 Keyboard II (1)
MUTH 201 Music Theory III (3)
MUTH 202 Music Theory IV (3)
MUTH 207 Sight Singing and Ear Training III (1)
Piano Proficiency Exam
Senior Recital (solo or joint)
EDSP 207 Introduction to Special Education (3)
EDSP 307 Inclusion Practices (3)
EDUC 201 Education and American Society (3)
EDUC 203 Educational Psychology (.5 Special Education) (3)
EDUC 208 Teaching English Language Learners K-12 Schools (3)
ENGL 122-176 Literature meeting QuEST (3)
MATH/CIS/STAT xxx meeting QuEST (6)
TEP 210 Sophomore Field Experience (25 hrs.) (0)
TEP 310 Junior Field Experience (0)
TEP 413 Student Teaching Experience in Music (0)
TEP 438 Student Teaching Music (9)

Music (Business) (B.A.) (73 credits)

ACCT 141 Financial Accounting (3)
BUSA 120 Principles of Management (3)
BUSA 381 Business Law I: The Legal Foundation for Business (3)
CIS 190 Strategic Use of Information Technology (3)
ECON 120 Principles of Macroeconomics (3)
INTE 394 Internship (4)
MATH 107 Applied Math for Management (3)
MRKT 130 Marketing Principles (3)
STAT 281 Applied Statistics for Management (3)

Six credits from the following:

BUSA 380 Small Business Development (3)
BUSA 382 Business Law II: The Legal Environment (3)
CIS 343 Introduction to E-commerce (3)
MRKT 337 Integrated Marketing Communications (3)
MRKT 357 Personal Selling (3)

Applied music courses (MUAP) (9)

ARTM 401 Arts Management (3)
MUEN xxx Music Ensemble elective (0.5)
MUMH 303 History of Music I (2)
MUMH 304 History of Music II (3)
MUMH 305 History of Music III (3)
MUMH 338 Studies in Global Music (2)
MUTH 101 Music Theory I (3)
MUTH 102 Music Theory II (3)
MUSI 481 Senior Seminar in Music (1)

Nine credits to be selected from the following:

MUED 227 Instrument Repair (3)
MUED 251 Conducting I: Fundamentals (2)
MUEN Music Ensemble electives (1-3)
MUSI 271/THEA 260 Musical Theatre (3)
MUSI 343 Piano Pedagogy (3)
MUSI 452 Vocal Pedagogy (3)
MUTH 201 Music Theory III (3)

Music (B.A.) (56 credits)

MUED 251 Conducting I: Fundamentals (2)
MUEN xxx Music Ensembles (6)
MUMH 303 History of Music I (2)
MUMH 304 History of Music II (3)
MUMH 305 History of Music III (3)
MUMH 338 Studies in Global Music (2)
MUSI 001 Concert Attendance (0)
MUSI 481 Senior Seminar in Music (1)
MUTH 101 Music Theory I (3)
MUTH 102 Music Theory II (3)
MUTH 107 Sight Singing and Ear Training I (1)
MUTH 108 Sight Singing and Ear Training II (1)
MUTH 109 Keyboard I (1)
MUTH 110 Keyboard II (1)
MUTH 201 Music Theory III (3)
MUTH 202 Music Theory IV (3)
MUTH 207 Sight Singing and Ear Training III (1)
Piano Proficiency Exam
Senior Recital (solo or joint)

Music majors not pursuing a concentration: (20 credits)

MUAP xxx Applied Music (8)

*Twelve credits of the following:**One to three credits from the following:*

MUED 140 Voice Class (1)
MUSI 452 Vocal Pedagogy (3)

And nine or eleven credits additional credits of MUAP or MUSI electives

*Music majors pursuing a concentration: (20 credits)**Eight credits of the following:**One or three credits from the following:*

MUED 140 Voice Class (1)
MUSI 452 Vocal Pedagogy (3)

And seven or five additional credits of MUAP electives

Twelve credits from one of the following concentrations:

Commercial Music Concentration* (12 credits)

ARTM 401 Arts Management (3)
MUAP 167 Applied Jazz Improvisation (3)
MUCM 336 Music Business (3)
MUCM 351 Electronic Music and MIDI (3)
MUGE 223 Jazz Improvisation (3)

*One semester at Contemporary Christian Music Program, artist or business track (12) in Nashville (www.bestsemester.com) may fulfill the requirements for this concentration.

Composition Concentration (12 credits)

MUAP 181 Applied Composition Lessons (8)
MUCM 351 Electronic Music and MIDI (3)
Music (MUAP, MUEN, or MUSI) Electives (1)

Music (Music and Worship) (B.A.) (61 credits)

MUAP 111 Voice (2)

Four credits from the following:

MUAP 165 Guitar (4)

MUAP 168 Praise and Worship Keyboard (4)

MUAP xxx Applied Music (major performance area) (8)

MUCM 431 Foundations of Worship Leadership (3)

MUCM 443 Practicum in Worship Leadership (3)

MUED 251 Conducting I: Fundamentals (2)

MUEN 156 Music Ensemble: Worship Community (.5 a semester, total of 3 credits required)

MUGE 209 Survey of Christian Song (3)

MUMH 338 Studies in Global Music (2)

MUSI 485 Senior Seminar for Music and Worship (2)

MUTH 101 Music Theory I (3)

MUTH 102 Music Theory II (3)

MUTH 107 Sight Singing and Ear Training I (1)

MUTH 108 Sight Singing and Ear Training II (1)

BIBL 231 Old Testament Literature (3)

BIBL 235 New Testament Literature (3)

CHRM 099 Opportunities in Christian Ministries (1)

CHRM 210 Theology of Ministry (3)

CHRM 323 Worship (3)

Three credits from the following:

CHRM 242 Christian Spirituality (3)

CHRM 343 Introduction to Preaching (3)

THEO 238 Christian Theology I: God and Humanity (3)

THEO 239 Christian Theology II: Nature and Mission (3)

Music Minor (18 credits)

MUAP xxx Applied Music (4)

MUTH 101 Music Theory I (3)

MUTH 102 Music Theory II (3)

MUTH 107 Sight Singing and Ear Training I (1)

MUTH 108 Sight Singing and Ear Training II (1)

Three credits from the following:

MUMH 304 History of Music II (3)

MUMH 305 History of Music III (3)

MUAP, MUSI, or MUEN Electives (3)

Music and Worship Minor (18 credits)

MUAP xxx Applied Music (3)

MUCM 431 Foundations of Worship Leadership (3)

MUED 251 Conducting I: Fundamentals (2)

MUGE 209 Survey of Christian Song (3)

MUTH 101 Music Theory I (3)

MUTH 107 Sight Singing and Ear Training I (1)

Music (MUAP, MUEN, or MUSI) Electives (3)

THEATRE and DANCE

Department Chair: Tymberley A. Whitesel

Administrative Assistant: Deborah Hawkins

Professor: T. Whitesel

Associate Professors: E. Cohn, D. Inouye

Assistant Professor: G. Hurley

Majors and Minors

The Department of Theatre and Dance offers the following majors:

Dance (B.A.)

Digital Media (B.A.) *with a concentration in Church Media* (See Interdisciplinary Majors and Minors for details)

Musical Theatre (B.F.A.)

Theatre (B.A.) *with emphases in:*

Acting

Directing

Technical Production and Design

Theatre (Business) (B.A.)

The Department of Theatre and Dance offers minors in Theatre and in Dance.

The Department of Theatre and Dance offers a rigorous exploration of historic and contemporary theatre practice within a vibrant liberal arts program. Our curriculum cultivates the stewardship of intellect and imagination through a variety of Christian perspectives. In a dynamic exchange between learning and doing, students engage theatre and dance through a wealth of hands-on experiences. Our students participate in theatre and dance as a forum for civic dialogue where history, culture, politics, and religion meet to give form and meaning to the human experience. Upon graduation, our students are prepared not only to meet the artistic and technical challenges of 21st century theatre, but also to serve and lead a new generation of artists and scholars.

The Department also contributes to General Education at Messiah College. It offers a variety of courses in theatre and dance that are designed to fulfill the College's General Arts requirement. The Department sponsors theatrical productions dance concerts, and lectures that are attended by the Messiah community as well as residents of the Harrisburg area.

Auditions

Students wishing to major in Theatre, Musical Theatre, or Dance must complete an audition for acceptance into the program. The Department schedules two - three days for auditions each year: one in the fall, and two in early spring. Students may also schedule auditions at other times during the year if they are not able to attend on the scheduled audition days. For more information please contact the Chair of the Department of Theatre and Dance.

Dance

The Dance major at Messiah College leads to a B.A. degree with an emphasis in the development of the well-rounded and versatile dance artist. Our curriculum includes technical course work in ballet, modern, jazz, tap and dance ministry, performance and choreographic opportunities as well as course study in dance history; dance pedagogy, arts management, and kinesiology prepare students for careers in dance performance, dance education, dance ministry, graduate school, and other related fields in dance. Like all arts dance

is a significant form of human expression and communication, a way of knowing and understanding the world, and a means of serving God and other people.

Dance (B.A.) (38-40 credits)

APHS 271 Kinesiology (3)
DANC 101, 201, 301, 401 Ballet I, II, III, IV (4)
DANC 102, 202, 302, 402 Jazz and Dance Theatre I, II, III, IV (4)
DANC 103, 203, 303, 403 Modern I, II, III, IV (4)
DANC 104, 204 Tap I, II (2)
DANC 105 Dance Pedagogy (2)
DANC 111 Dance Performance Ensemble (.5 each, 2 credits total)
DANC 304 Dance Ministry (2)
DANC 305 Dance History (2)
DANC 470 Dance Capstone Practicum (1-3)

Two credits from the following:

DANC 314 Improvisation (2)
DANC 404 Choreography (2)

Three credits from the following:

ARTM 401 Arts Management (3)
DANC xxx Dance electives (2-3)
DANC 381 Dance Practicum (1-3)
DANC 491 Independent Study (1-3)
MUGE 101 Fundamentals of Music Theory (3)
MUTH 101 Music Theory I (3)
THEA 120 Acting I (3)
THEA 260/MUSI 271 Musical Theatre (3)
THEA 361 Creative Dramatics (3)
THEA 115 Production Practicum (1)
THEA 150 Introduction to Technical Theatre/Design (3)
THEA 475 Theatre Capstone Seminar (3)

Dance Minor (18 credits)

DANC 101 Ballet I (1)
DANC 102 Jazz and Dance Theatre I (1)
DANC 103 Modern Dance I (1)
DANC 104 Tap Dance I (1)
DANC 305 Dance History (2)

Two additional credits from one of the following options:

DANC 201, 301, 401 Ballet II, III or IV (2)
DANC 202, 302, 402 Jazz and Dance Theatre II, III or IV (2)
DANC 203, 303, 403 Modern II, III or IV (2)

Ten credits of additional DANC electives, excluding DANC 470

Musical Theatre

The B.F.A. in Musical Theatre provides professional training in the skills needed to perform musical theatre. An interdisciplinary degree, students gain skills in theatre, dance, and music. The department offers frequent fully-mounted musical theatre productions, and in the senior year students complete a senior project in musical theatre and have the opportunity to audition before professional agents.

Musical Theatre (B.F.A.) (84 credits)

Theatre/Dance Core requirements (60 credits)

THEA 115 Production Practicum (1 cr/semester for 5 credits)
THEA 120 Acting I (3)
THEA 150 Introduction to Technical Theatre and Design (3)
THEA 223 Acting II (3)
THEA 230 Directing I: Fundamentals of Play Directing (3)
THEA 240 Survey of Dramatic Literature and Criticism (3)
THEA 260/MUSI 271 Musical Theatre (3 cr/semester for 9 credits)
THEA 323 Acting III (3)
THEA 325 Acting Techniques for Musical Theatre (3)

THEA 341 History of Theatre II (3)
THEA 420 Audition Techniques (3)
THEA 423 Acting IV (3)
THEA 470 Theatre Capstone Project (3)
THEA 475 Theatre Capstone Seminar (3)
DANC 101 Ballet I (1)
DANC 102 Jazz and Theatre Dance I (1)
DANC 103 Modern Dance I (1)
DANC 104 Tap Dance I (1)
DANC 201 Ballet II (1)
DANC 202 Jazz and Theatre Dance II (1)
DANC 203 Modern Dance II (1)
DANC 204 Tap Dance II (1)
DANC 404 Choreography (2)

Music Core requirements (24 credits)

MUAP 111 Applied Voice (10)

Two credits selected from the following:

MUAP 121 Applied Piano (1-2)
MUTH 109 Keyboard Class I (1)
MUTH 110 Keyboard Class II (1)

Two credits selected from the following:

MUEN 111 Concert Choir (.5)
MUEN 113/115 Men's/Women's Ensemble (.5)
MUEN 114 Jazz Singers (.5)
MUEN 149 Opera Workshop (.5)

Six credits from the following:

MUGE 101 Fundamentals of Music Theory (3)
MUTH 101 Music Theory I (3)
MUTH 102 Music Theory II (3)
MUTH 107 Sightsinging and Eartraining I (1)
MUTH 108 Sightsinging and Eartraining II (1)
MUED 251 Conducting I: Fundamentals (2)

Theatre

The Theatre major at Messiah College leads to a B.A. degree with an emphasis in acting, directing, or technical production and design. Our curriculum includes course work in dramatic literature, theatre history, and theory as well as applied studio courses in acting, directing, and technical production and design. Our program is designed to develop students' creative gifts as they gain knowledge and experience in a variety of educational settings.

Enrichment Program

We recognize that professional theatre thrives in urban centers. For this reason, we believe it is essential for students to learn about themselves and their craft in the city. Enrichment credits may be earned at department-approved programs throughout North America and Europe typically during the junior year. Our students have enriched their Mechanicsburg education through theatre training at the Gaiety School of Acting, Dublin; Royal Holloway, University of London; The Wesley Institute, Sydney Australia; the Eugene O'Neill Institute and internships with professional theatre companies. Students return to the Mechanicsburg campus to continue course work and propose a Senior Capstone Project. This portfolio project represents the culmination of the student's training and serves as a bridge to graduate programs, professional theatre, or other job opportunities.

Acting Emphasis

The acting emphasis at Messiah College offers students the benefits of individualized attention in an intimate environment. Studio courses, workshops, and master classes are complemented by a robust season that includes three mainstage, one black-box, and several student-directed productions each year. The J-term provides an intensive exploration of musical theatre or theatre for young audiences culminating in a fully mounted production.

Directing Emphasis

The directing emphasis is designed to equip directors with both foundational and intimate knowledge of the theatrical process. Directors apply course work in directing theory, acting, design, and production to studio projects as well as to a fully mounted, one-act play in the Senior Capstone Project.

Technical Production and Design Emphasis

The technical production and design emphasis is structured to provide students with more than just working skills. Along with learning about and experiencing some of the current technological advances in theatre production, our curriculum assists students in developing an aesthetic perception of their art. With a combination of classroom and realized production and design experiences, students will learn the communication skills necessary to work effectively not only with actors and directors, but also with other designers and technicians.

Theatre (B.A.) (48-51 credits)

Theatre Core requirements (27-29 credits)

THEA 115 Production Practicum (8) (1 credit per semester)

THEA 120 Acting I (3)

THEA 150 Introduction to Technical Theatre and Design (3)

THEA 240 Survey of Dramatic Literature and Criticism (3)

THEA 340 History of Theatre I: Antiquity to Renaissance (3)

THEA 341 History of Theatre II: Renaissance to Postmodernism (3)

THEA 470 Theatre Capstone Project (1-3)

THEA 475 Theatre Capstone Seminar (3)

Enrichment Program (9 credits) A minimum of 9 credits at a department approved institution **OR** 9 credits of Theatre or Dance Electives (not to include more than two Dance studio credits).

One of the following Emphases (12-13):

Acting Emphasis (12 credits)

THEA 223 Acting II (3)

THEA 323 Acting III (3)

THEA 423 Acting IV (3)

MUAP 111 Applied Music - Voice (2)

Two of the following:

DANC 102, 202, 302, 402 Jazz and Theatre Dance (1)

DANCE 103, 203, 303, 403 Modern Dance (1)

Directing Emphasis (12 credits)

THEA 230 Directing I: Fundamentals of Play Directing (3)

THEA 250 Stage Management (3)

THEA 330 Directing II (3)

THEA 450 Theatre Design (3)

Technical Production and Design Emphasis (12 credits)

THEA 230 Directing I: Fundamentals of Play Directing (3)

THEA 250 Stage Management (3)

THEA 350 Scenographic Techniques (3)

THEA 450 Theatre Design (3)

Theatre (Business)

This degree requires students to do extensive work in theatre so that they have a "hands-on" understanding of an artist's life and work. Students will also receive a thorough background in business, giving them the tools to make the sound financial decisions, which enable and support the artistic work of any arts organization. Preparation in the arts and business will come together in specific training for arts management, including a required internship with a local arts organization.

Theatre (Business) (B.A.) (72-73 credits)

ACCT 141 Financial Accounting (3)

Two to three credits from the following:

ARTH 210 Topics in Non-Western Art (3)

MUMH 338 Studies in Global Music (2)

ARTM 401 Arts Management (3)

Six credits from the following:

CIS 343 Introduction to E-commerce (3)

BUSA 380 Small Business Development (3)

BUSA 382 Business Law II: The Legal Environment for Business (3)

MRKT 337 Integrated Marketing Communications (3)

MRKT 357 Personal Selling (3)

BUSA 120 Principles of Management (3)

BUSA 381 Business Law I: The Legal Foundation for Business (3)

CIS 190 Strategic Use of Information Technology (3)

ECON 120 Principles of Macroeconomics (3)

INTE 394 Internship (4)

MATH 107 Applied Math for Management (3)

MRKT 130 Marketing Principles (3)

STAT 281 Applied Statistics for Management (3)

THEA 110 Introduction to Theatre (3)

THEA 115 Production Practicum (3)

THEA 150 Introduction to Technical Theatre and Design (3)

THEA 240 Survey of Dramatic Literature and Criticism (3)

THEA 250 Stage Management (3)

THEA 340 History of Theatre I (3)

THEA 341 History of Theatre II (3)

THEA 470 Theatre Capstone Project (3)

THEA 475 Theatre Capstone Seminar (3)

THEA xxx Theatre electives (6)

Theatre Minor (18 credits)

THEA 115 Production Practicum (1)

THEA 120 Acting I (3)

THEA 150 Introduction to Technical Theatre and Design (3)

Eleven credits of THEA Electives (11)

VISUAL ARTS

Department Chairs:	Brent Good
Administrative Assistant:	Jean McCauslin
Professors:	D. Finch, C. Forsythe, D. Forsythe
Associate Professors:	B. Good, D. Kasperek, S. Matthews
Assistant Professors:	E. Dubin

Majors and Minors

The Department of Visual Arts offers the following majors:

- Art (Business) (B.A.)
- Art Education with K-12 Teaching Certification (B.S.)
 - with concentrations in:*
 - Graphic Design and Digital Art
 - Three-Dimensional Studies
 - Two-Dimensional Studies
- Art History (B.A.)
- Digital Media (B.A.)
 - with concentration in Art and Design (See Interdisciplinary)*
- Studio Art (B.F.A. or B.A.) *with concentrations in:*
 - Graphic Design and Digital Art
 - Three-Dimensional Studies
 - Two-Dimensional Studies

The Department of Visual Arts offers minors in Art History and Studio Art.

Studio Art

The Department of Visual Art offers majors leading to a B.A. and B.F.A. in Studio Art, a B.A. in Art History, a B.S. and M.A. in Art Education and interdisciplinary degrees in Arts (Business) (B.A.) and Digital Media (B.A.). The majors provide a strong curriculum and thorough training in the visual arts within the framework of a liberal arts education and with a commitment to a Christian world view. Our goals are to foster excellence in the arts and to serve God and society through the use and development of creative gifts. The program has been accredited by the National Association of Art and Design (NASAD), and by the Pennsylvania Department of Education (P.D.E.). The department sponsors a complete exhibition calendar as well as annual lectures that are attended by the Messiah community and residents of the Harrisburg area. The department takes advantage of the close proximity to several large metropolitan areas and takes department-wide semi-annual trips to the museums in New York and other cities such as Philadelphia, Baltimore, and Washington, D.C.

The Climenhaga Building houses part of the art facilities along with the theatre & dance programs. The studio spaces include drawing, painting, a multipurpose studio and photography. Also, the Auginbaugh Gallery—located in the Climenhaga Building—hosts several exhibitions yearly. The gallery exhibits works from nationally known artists, the art faculty, and the students. Frey Hall houses studio spaces for sculpture, ceramics, fibers, and graphic design, printmaking, a multipurpose studio and the senior studios. It contains the art education room, a seminar room, and specially equipped art history classrooms. The studios are well maintained with appropriate equipment for the processes that are taught within each area.

The Bachelor of Arts (B.A.) in Studio Arts is designed to provide students with both breadth and depth. Students begin the curriculum with a five-course foundation sequence: Visual Literacy, Introduction to Art History, and a drawing course are taken in the first year, along with a selection of two foundational design courses completed by the

end of the sophomore year. Students also begin a four course art history sequence which includes a survey of the history of Western Art, and a choice of Modern or Contemporary Art History. The studies in art history are normally completed by the junior year. In the sophomore year, art students begin to select individual studio courses from three areas: Graphic Design and Digital Art (computer art, multimedia, web, app design, motion and graphics), Two-Dimensional Studies (drawing, painting, photography and printmaking), or Three-Dimensional Studies (in ceramics, paper and book processes, sculpture, furniture, fiber arts, and installation). During their senior year (which must be spent on the Mechanicsburg Campus) studio art majors prepare an exhibition of work in their area of study. At the completion of their program art students should demonstrate a knowledge of several areas of the visual arts and depth in one area. Studio Art majors must maintain a 2.5 grade point average in their major to remain in the program.

The Bachelor of Fine Arts (B.F.A.) in Studio Art has the same concentrations in Three-Dimensional Studies, Two-Dimensional Studies and Graphic Design and Digital Art that are currently available in the B.A. degree only with the opportunity for more intensive study geared to the student's interest. The program will train professional artists to the highest level possible for undergraduate students and will be especially valuable for those who plan to go on to graduate school. The program balances 21 credits of art history, seminar, and aesthetics with 57 credits in studio for a total of 78 credits in the visual arts. Admission to the B.F.A. requires a portfolio review; for more information, please consult the department website. B.F.A. students are required to go through sophomore review successfully and to maintain at least a 3.0 in their major to remain in the program. Students must plan on spending their senior year on the Mechanicsburg campus to execute a body of work for exhibition.

Sophomore Review

All Studio Art and Art Education majors are required to go through the sophomore review, including transfer students new to the major and/or new to the College. Students in the B.A. studio program and Art Education majors typically go through the review during their fourth semester if they start as a first year student in the major. Students cannot put off the review if they are on campus. If the student is not on campus during that semester they must go through review in their 5th semester. Transfer students to the major must accumulate 9 studio credits prior to the review, and must have obtained at least sophomore standing. Transfer students with previous studio credits from other colleges will go through the review when they have earned more than 9 studio credits and have obtained at least sophomore standing.

Students are required to present a portfolio of the work that they have accomplished thus far in their program to a panel of studio faculty. The portfolio must include at least one project from each studio course they have taken (including works done at other colleges). B.A. and B.S. students are limited to approximately 12 pieces, and prepare a 10-12 minute discussion with the panel. No work from high school may be included in this review. B.F.A. students may show up to 15 pieces, and prepare for 15 minutes with the panel.

The faculty panel rates the student's work, the presentation, student and classroom skill and responsiveness to academic advising. A single score is assigned. Students must score at least 55% to remain in the program. Students are also grouped into the top, middle, and bottom section categories. Students in the bottom section are urged to create

a plan with the help of their advisor to reevaluate their goals and to plan for methods of improvement.

Course categories: Foundational studios are offered every semester. Other courses are offered on a rotation basis.

Art Education courses: ART 201, 331, 355, 356, 407

Capstone Core courses: ART 483, 485, 487, 493, 494

Ceramics courses: ART 220, 221, 320

Graphic Design/Digital Art courses: ART 112, 211, 236, 237, 312, 336, 337, 338, 347, 411, 420, 431, 437

Drawing courses: ART 171, 271, 339, 371, 372

Foundational Studio courses: ART 110, 182, 282, ARTH 111

Painting courses: ART 143, 215, 315, 415

Photography courses: ART 251, 352, 353

Printmaking courses: ART 232, 330, 332, 442

Sculpture courses: ART 262, 263, 364, 462

Fibers courses: ART 224, 234, 334, 438

Additional 3-D Art courses: ART 136, 283, 308

Concentrations. Studio Art majors along with Art Education majors choose from one of the three concentrations to do in-depth studio study. Students must take a minimum of five courses in their concentration.

Graphic Design and Digital Art (computer art, multimedia, web, app design, motion, and graphic design). Students use the latest programs that are included in the Adobe Creative Suite CS6 Design & Web Premium such as InDesign, Illustrator, Photoshop, Flash, Lightroom and Dreamweaver in our Macintosh lab system, which is continually updated. Students choose from a variety of course work that will develop students' skills and aesthetic sensibilities in the production of computer-generated art work, graphic-oriented materials and Web motion and design.

Three-Dimensional Studies (ceramics, paper and book processes, sculpture, installation, furniture, and fiberarts). The Three Dimensional Studies concentration offers the student an array of coursework in sculpture and the fine crafts. Students can select from a variety of sculptural processes and furniture design, as well as study ceramics, learn the process of throwing, handbuilding, clay making, and glaze firing. They can also choose to study fiber processes such as weaving, wearable arts, and dyeing, printing and painting on fabric. In addition, students can study papermaking and book structures.

Two-Dimensional Studies (drawing, painting, photography and printmaking). This concentration emphasizes the study of a variety of media and processes that are traditionally used to produce two-dimensional work. Students choose to study from an extensive menu of related course work including courses such as: figure drawing, illustration, lithography, intaglio and relief printmaking, and various levels of painting and both film and digital photography courses.

Studio Art (B.A.) (57 credits)

ART 110 Visual Literacy (3)

ART 171 Foundations of Drawing (3)

ART 182 Color and Design (3)

ART 282 Form, Space, and Media (3)

ART 493 Art Seminar (3)

ART 494 Senior Exhibit (3)

ARTH 111 Methods and Theories of Art History (3)

Three credits from the following:

ARTH 150 Art History I: Ancient through Medieval Art (3)

ARTH 151 Art History II: Renaissance–Contemporary Art (3)

Three credits from the following:

ARTH 209 History of Modern Art (3)

ARTH 309 Contemporary Art: 1945–Present (3)

ARTH 2xx Elective Art History (3) (200 level or above)

Sophomore Review

One of the following concentrations: Students must take three different processes, one 300 level course, and Advanced Studies to complete the 15 total credits within the concentration, in addition to 12 credits in Cross Concentration Studies.

Graphic Design and Digital Art Concentration (15)

Three credits from the following:

ART 236 Graphic Design & Visual Culture (3)

ART 237 Typography and Visual Communications (3)

ART 483 Advanced Graphic Design and Digital Art (3)

Three credits from the following:

ART 211 Computer Art and Imaging (3)

ART 312 Digital Prints: Concepts and Structures (3)

Six credits from the following:

ART 336 Design for New Media (3)

ART 337 Graphic Design and Professional Practice (3)

ART 338 Digital Illustration: Editorial and Narrative (3)

ART 347 Publication Portfolio: Design as Service (3)

ART 411 Advanced Computer Art (3)

ART 420 Designer as Author: Book Design, Zines (3)

ART 431 Motion Design: Video, Animation, Communicat (3)

ART 437 Graphic Design III: Adv. Typography & Design (3)

Cross-Concentration for Graphic Design and Digital Art (12)

Six credits from Two-Dimensional Studies:

ART 215 Painting I (3)

ART 251 Photography (3)

ART 271 Intermediate Drawing (3)

ART 339 Illustration (3)

ART 372 Figure Drawing (3)

OR *three credits from the following printmaking electives:*

ART 232 Screen Printing (3)

ART 330 Intaglio and Relief Printmaking (3)

ART 332 Lithography (3)

Six credits from Three-Dimensional Studies:

ART 136 Paper Processes (3)

ART 283 Furniture Design (3)

OR *three credits from the following ceramics electives:*

ART 220 Ceramics I: Wheel Techniques (3)

ART 221 Ceramics I: Handbuilding (3)

OR *three credits from the following textiles electives:*

ART 224 Dyeing, Printing & Manipulat. Fabric (3)

ART 234 Weaving Techniques (3)

ART 334 Wearable Art (3)

OR *three credits from the following sculpture electives (3):*

ART 262 Construction and Assemblage (3)

ART 263 Carving (3)

ART 364 Casting (3)

Three-Dimensional Studies Concentration (15)

Nine credits from three different processes:

Ceramics:

ART 220 Ceramics I: Wheel Techniques (3)

ART 221 Ceramics I: Handbuilding (3)

Fibers:

ART 224 Dyeing, Printing and Manipulating Fabric (3)

ART 234 Weaving Techniques (3)

ART 334 Wearable Art (3)

Furniture: ART 283 Furniture Design (3)

Installation: ART 308 Installation and Public Sculpture (3)

Paper & Book Structures: ART 136 Paper Processes (3)

Sculpture:

ART 262 Construction and Assemblage (3)

ART 263 Carving (3)

ART 364 Casting (3)

Three credits from the following:

ART 320 Advanced Ceramics (3)

ART 438 Advanced Textiles Processes (3)

ART 462 Advanced Sculpture (3)

Additional sculpture or fibers course listed above (3)

ART 485 Advanced Three-Dimensional Studies (3)

Cross-Concentration for Three-Dimens. Studies Concentration (12)

Six credits from *Graphic Design and Digital Art*:

Three credits from the following:

ART 112 Intro to Graphic Design Problem Solv (3)

ART 236 Graphic Design and Visual Culture (3)

ART 237 Typography and Visual Communicat. (3)

Three credits the following:

ART 211 Computer Art and Imaging (3)

ART 312 Digital Prints: Concepts and Structures (3)

Six credits from two *Two-Dimensional* processes:

Drawing:

ART 271 Intermediate Drawing (3)

ART 372 Figure Drawing (3)

Painting: ART 215 Painting I (3)

Photography: ART 251 Photography (3)

Printmaking:

ART 232 Screen Printing (3)

ART 330 Intaglio and Relief Printmaking (3)

ART 332 Lithography (3)

Two-Dimensional Studies Concentration (15)

Nine credits from the following:

ART 215 Painting I (3)

ART 251 Photography (3)

ART 271 Intermediate Drawing (3)

ART 339 Illustration (3)

Three credits from the following *printmaking electives*:

ART 232 Screen Printing (3)

ART 330 Intaglio and Relief Printmaking (3)

ART 332 Lithography (3)

Three credits from the following:

ART 315 Painting II (3)

ART 371 Advanced Drawing (3)

ART 372 Figure Drawing (3)

ART 415 Painting III (3)

ART 442 Advanced Printmaking (3)

Additional printmaking course above (3)

ART 487 Advanced Two-Dimensional Studies (3)

Cross-Concentration Studies for Two-Dimensional Studies (12)

Six credits from *Graphic Design and Digital Art*:

Three credits from *graphic design and digital art*:

ART 112 Intro to Graphic Design Problem Solv. (3)

ART 236 Graphic Design and Visual Culture (3)

ART 237 Typography and Visual Commun. (3)

Three credits from the following (3):

ART 211 Computer Art and Imaging (3)

ART 312 Digital Prints: Concepts and Structures (3)

ART 338 Digital Illustration: Editorial & Narr. (3)

Six credits from two different *Three-Dimensional* processes:

Ceramics:

ART 220 Ceramics I: Wheel Techniques (3)

ART 221 Ceramics I: Handbuilding (3)

Fibers:

ART 224 Dyeing, Printing & Manipul. Fabric (3)

ART 234 Weaving Techniques (3)

ART 334 Wearable Art (3)

Furniture: ART 283 Furniture Design (3)

Installation: ART 308 Installation and Public Sculpture (3)

Paper & Book Structures: ART 136 Paper Processes (3)

Sculpture:

ART 262 Construction and Assemblage (3)

ART 263 Carving (3)

ART 364 Casting (3)

Studio Art (B.F.A.) (81 credits)

ART 110 Visual Literacy (3)

ART 171 Foundations of Drawing (3)

ART 182 Color and Design (3)

ART 282 Form, Space, and Media (3)

ART 493 Art Seminar (3)

ART 494 Senior Art Exhibit (3)

ARTH 111 Methods and Theories of Art History (3)

ARTH 150 Art History I: Ancient through Medieval Art (3)

ARTH 151 Art History II: Renaissance through Contemp. Art (3)

Three credits from the following (3):

ARTH 209 History of Modern Art (3)

ARTH 309 Contemporary Art: 1945–Present (3)

ARTH 210 Topics in Non-Western Art (3)

Three credits from the following (3):

PHIL 101 Problems of Philosophy (3)

PHIL 102 History of Philosophy (3)

PHIL 342 Aesthetics (3)

Sophomore Review

24 credits in one of the following concentrations **and** 18 credits in the Cross

Concentration Studies.

Graphic Design and Digital Art Concentration (24 credits)

ART 483 Advanced Graphic Design and Digital Art (3)

21 credits from the following:

ART 211 Computer Art and Imaging (3)

ART 236 Graphic Design and Visual Culture (3)

ART 237 Typography and Visual Communications (3)

ART 312 Digital Prints: Concept and Structures (3)

ART 336 Design for New Media (3)

ART 337 Graphic Design and Professional Practice (3)

ART 338 Digital Illustration: Editorial and Narrative (3)

ART 347 Publication Portfolio: Design as Service (3)

ART 411 Advanced Computer Art (3)

ART 420 Designer as Author: Book Design, Zines (3)

ART 431 Motion Design (3)

ART 437 Graphic Design III (3)

Cross-Concentration Studies for Graphic Design & Digital Art (18)

Nine credits from one cross-concentration and six credits from the other for a total of 15 credits.

Six or nine credits from Two-Dimensional Studies:

- ART 215 Painting I (3)
- ART 251 Photography (3)
- ART 271 Intermediate Drawing (3)
- ART 339 Illustration (3)

OR three credits following printmaking electives:

- ART 232 Screen Printing (3)
- ART 330 Intaglio and Relief Printmaking (3)
- ART 332 Lithography (3)

Six or nine credits from Three-Dimensional Studies:

- ART 136 Paper Processes (3)
- ART 283 Furniture Design (3)

OR three credits from the following Ceramics electives:

- ART 220 Ceramics I: Wheel Techniques (3)
- ART 221 Ceramics I: Hand-building (3)

OR three credits from the following Textiles electives:

- ART 224 Dyeing, Printing and Manipulat. Fabric (3)
- ART 234 Weaving Techniques (3)
- ART 334 Wearable Art (3)

OR three credits from the following sculpture electives (3):

- ART 262 Construction and Assemblage (3)
- ART 263 Carving (3)
- ART 364 Casting (3)

ART 2xx or higher elective excluding Art Education courses (3)

Three-Dimensional Studies Concentration (24 credits)

21 credits from the following:

- ART 136 Paper Processes (3)
- ART 220 Ceramics I: Wheel Techniques (3)
- ART 221 Ceramics I: Handbuilding (3)
- ART 224 Dyeing, Printing and Manipulating Fabric (3)
- ART 234 Weaving Techniques (3)
- ART 262 Construction and Assemblage (3)
- ART 263 Carving (3)
- ART 308 Installation Art and Public Sculpture (3)
- ART 283 Furniture Design (3)
- ART 320 Advanced Ceramics (3)
- ART 334 Wearable Art (3)
- ART 364 Casting (3)
- ART 438 Advanced Textiles Processes (3)
- ART 462 Advanced Sculpture (3)

ART 485 Advanced Three-Dimensional Studies (3)

Cross-Concentration Studies for Three-Dimensional Studies (18)

Nine credits from one cross-concentration and six credits from the other for a total of 15 credits.

Graphic Design and Digital Art:

- ART 112 Introduction to Graphic Problem Solving (3)
- ART 211 Computer Art and Imaging (3)
- ART 236 Graphic Design and Visual Culture (3)
- ART 237 Typography and Visual Communication (3)
- ART 312 Digital Prints: Concept and Structures (3)
- ART 336 Design for New Media (3)
- ART 337 Graphic Design and Visual Practice (3)
- ART 338 Digital Illustration (3)
- ART 347 Publication Portfolio (3)
- ART 420 Designer as Author (3)
- ART 431 Motion Design (3)

Two-Dimensional Studies:

- ART 215 Painting I (3)
- ART 232 Screen Printing (3)

ART 251 Photography (3)

ART 271 Intermediate Drawing (3)

ART 330 Intaglio and Relief Printmaking (3)

ART 332 Lithography (3)

ART 339 Illustration (3)

ART 2xx or higher elective excluding Art Education courses (3)

Two-Dimensional Studies Concentration (24 credits)

21 credits from the following:

- ART 215 Painting I (3)
- ART 232 Screen Printing (3)
- ART 251 Photography (3)
- ART 271 Intermediate Drawing (3)
- ART 315 Painting II (3)
- ART 330 Intaglio and Relief Printmaking (3)
- ART 332 Lithography (3)
- ART 339 Illustration (3)
- ART 352 Digital Photography (3)
- ART 353 Historical Techniques and Advanced Photography (3)
- ART 371 Advanced Drawing (3)
- ART 372 Figure Drawing (3)
- ART 415 Painting III (3)

ART 487 Advanced Two-Dimensional Studies (3)

Cross-Concentration Studies for Two-Dimensional Studies (18)

Nine credits from one cross-concentration and six credits from the other for a total of 15 credits.

Graphic Design and Digital Arts:

- ART 112 Introduction to Graphic Problem Solving (3)
- ART 211 Computer Art and Imaging (3)
- ART 236 Graphic Design and Visual Culture (3)
- ART 237 Typography and Visual Communications (3)
- ART 312 Digital Prints: Concept and Structures (3)
- ART 336 Design for New Media
- ART 337 Graphic Design and Visual Practice (3)
- ART 338 Digital Illustration
- ART 347 Publication Portfolio: Design as Service (3)
- ART 420 Designer as Author: Book Design, Zines
- ART 431 Motion Design (3)

Three-Dimensional Studies:

- ART 136 Paper Processes (3)
- ART 220 Ceramics I: Wheel Techniques (3)
- ART 221 Ceramics I: Hand-building (3)
- ART 224 Dyeing, Printing and Manipulating Fabric (3)
- ART 234 Weaving Techniques (3)
- ART 262 Construction and Assemblage (3)
- ART 263 Carving (3)
- ART 283 Furniture Design (3)
- ART 308 Installation Art and Public Sculpture (3)
- ART 334 Wearable Art (3)
- ART 364 Casting (3)

ART 2xx or higher elective excluding Art Education courses (3)

Studio Art Minor (18 credits)

Three credits from the following:

- ART 171 Foundations of Drawing (3)
- ART 182 Color and Design (3)
- ART 237 Typography and Visual Communications (3)
- ART 282 Form, Space, and Media (3)

Three credits from the following:

- ARTH 150 Art History I: Ancient through Medieval Art (3)
- ARTH 151 Art History II: Renaissance—Contemporary Art (3)

Twelve additional credits of ART electives

Art (Business) Major

The Art (Business) degree prepares graduates for work in non-profit arts organizations such as galleries, museums, and art associations of all types. Students will receive training in both the arts and business, so that they may make sound decisions in both areas. It will also enable them to effectively communicate with both the artists with whom they work, and the business-oriented supporters of the arts organization.

The degree requires students to do extensive work in the visual arts, so that they have a “hands-on” understanding of an artist’s life and work. Students will also receive a thorough background in business, giving them the tools to make the sound financial decisions, which enable and support the artistic work of the organization. Preparation in the arts and business will come together in specific training for arts management, including a required internship with a local arts organization.

Art (Business) (B.A.) (70 credits)

ACCT 141 Financial Accounting (3)
BUSA 120 Principles of Management (3)
BUSA 381 Business Law I: The Legal Foundation for Business (3)
CIS 190 Strategic Use of Information Technology (3)
ECON 120 Principles of Macroeconomics (3)
INTE 394 Internship (4)
MATH 107 Applied Math for Management (3)
MRKT 130 Marketing Principles (3)
STAT 281 Applied Statistics for Management (3)

Six credits from the following:

BUSA 380 Small Business Development (3)
BUSA 382 Business Law II: The Legal Environment (3)
CIS 343 Introduction to E-commerce (3)
MRKT 337 Integrated Marketing Communications (3)
MRKT 357 Personal Selling (3)

Visual Arts Emphasis

ART 171 Foundations of Drawing (3)
ART 182 Color and Design (3)
ART 282 Form, Space and Media (3)
ART 493 Art Seminar (9)

Three credits from the following:

ARTH 150 Art History I (3)
ARTH 151 Art History II (3)

Three credits from the following:

ARTH 209 History of Modern Art (3)
ARTH 309 Contemporary Art: 1945–Present (3)

ARTH 210 Topics in Non-Western Art (3)
ARTM 401 Arts Management (3)
One three-credit course from **each** studio concentration area (9)
One additional Studio Art elective (3)

Art Education Major

The Art Education major at Messiah College leads to a B.S. degree with teaching certification (K–12) accredited by the Pennsylvania Department of Education (P.D.E.). It is a demanding program with 127 credits necessary for graduation, but one that students have found very rewarding and an excellent preparation for a teaching career. The program combines the strength of two different areas for students who are interested in becoming an ‘artist educator’. The Art Education major will complete the same studio curriculum as the B.A. in Studio Art major, with the exception of one course (Art Education majors do not take ART 494). This includes choosing a concentration, as in the B.A. in Studio Art. In addition, Art Education majors take the required education and art education curriculum as required by the P.D.E. Students in the Art Education major will complete the major with their Professional Semester of student teaching in the spring of their senior year. Art Education Majors are required to apply to the Teacher Education Program in their sophomore year prior to taking 300 level education course work and they must maintain a 3.0 GPA. Art Education majors are also required to take the appropriate PAPA and Praxis tests required by the P.D.E. and obtain their “Good Character” clearances.

Art Education with K-12 Teaching Certification (B.S.) (98 credits)

ART 110 Visual Literacy (3)
ART 171 Foundations of Drawing (3)
ART 182 Color and Design (3)
ART 201 Introduction to Art Education (1)
ART 282 Form, Space, and Media (3)
ART 331 Art Instructional Design and Assessment (3)
ART 355 Elementary Curriculum Strategies (3)
ART 356 Secondary Curriculum Strategies (3)
ART 407 Student Teaching Seminar (1)
ART 493 Art Seminar (3)
ARTH 111 Methods and Theories of Art History (3)

Three credits from the following:

ARTH 150 Art History I: Ancient through Medieval Art (3)
ARTH 151 Art History II: Renaissance–Contemporary Art (3)

Three credits from the following:

ARTH 209 History of Modern Art (3)
ARTH 309 Contemporary Art: 1945–Present (3)

ARTH 210 Topics in Non-Western Art (3)

Sophomore Review

Select one concentration (15) from the Studio Art (B.A.) requirements and the corresponding Cross-Concentration (12)

CIS/MATH/STAT xxx meeting QuEST (6)
ENGL 122–176 Literature meeting QuEST (3)
EDSP 207 Introduction to Special Education (3)
EDSP 307 Inclusion Practices (3)
EDUC 201 Education and American Society (3)
EDUC 203 Educational (3)
EDUC 208 Teaching English Language Learners in K-12 Schools
TEP 210 Sophomore Field Experience (25 hours) (0)
TEP 310 Junior Field Experience (0)
TEP 412 Pre-Student Teaching Experience in Art (0)
TEP 437 Student Teaching: Art (9)

Art History Major

Students studying Art History will earn a B.A. in Art History. The major at Messiah College is designed to give students knowledge of the art and architecture of Europe, Western Asia, and the Western Hemisphere. Upper-level courses focus on a specific place or period, or will be worked around a theme such as spirituality and abstract art, artists and the theater, or biblical themes in the Middle Ages and Renaissance. In the junior and senior years, students will spend one or two semesters in approved programs in the United States or abroad. Students must be on the Mechanicsburg Campus for their capstone courses.

Art History (B.A.) (42 credits)

ARTH 111 Methods and Theories of Art History (3)

ARTH 150 Art History I: Ancient through Medieval Art (3)

ARTH 151 Art History II: Renaissance – Contemporary Art (3)

Twenty-one credits from the following:

ARTH 209 History of Modern Art (3)

ARTH 210 Topics in Non-Western Art (3)

ARTH 302 Topics in 19th- and 20th-Century Art (3)

ARTH 303 Topics in Ancient and Early Christian Art (3)

ARTH 304 Topics in Medieval and Renaissance Art (3)

ARTH 305 Topics in Reformation and Baroque Art (3)

ARTH 309 Contemporary Art: 1945–Present (3)

COMM 251 Film History I (3)*

COMM 252 Film History II (3)*

COMM 327 Global Indigenous Media (3)

HIST 305 Archaeology and Historical Interpretation (3)

PHIL 342 Aesthetics (3)

ARTH 490 Art History (3)

ART 493 Art Seminar (3)

Three credits from the following foundational studio courses:

ART 103 Introduction to Drawing (3)

ART 171 Foundations of Drawing (3)

ART 182 Color and Design (3)

Three credits from the following:

ART 107 Introduction to Painting (3)

ART 136 Paper Processes (3)

ART 143 Intro to Watercolor (3)

ART 215 Painting I (3)

ART 220 Ceramics I: Wheel (3)

ART 221 Ceramics I: Handbuilding (3)

ART 224 Dyeing, Printing and Manipulating Fabric (3)

ART 232 Screen Printing (3)

ART 234 Weaving (3)

ART 251 Photography (3)

ART 262 Construction and Assemblage (3)

ART 263 Carving (3)

ART 282 Form, Space, and Media (3)

ART 330 Intaglio and Relief Printmaking (3)

ART 332 Lithography (3)

ART 364 Casting (3)

*COMM 251 and 252 have prerequisites, which increase the size of the major.

Art History Minor (18 credits)

ARTH 111 Methods and Theories of Art History (3)

ARTH 150 or ARTH 151 Art History I or II (3)

12 additional credits in Art History (12)

School of Business, Education and Social Sciences

Dean: Caroline Maurer, Ph.D.

Administrative Assistant: Valerie Drobek

The School of Business, Education and Social Sciences prepares students to lead and serve by applying their understanding of human thought and development, culture, learning, and social and economic structures to complex social issues and systems in order to bring reconciliation and hope to the church and to society. The School provides:

- Intellectually challenging and faith affirming programs in a wide variety of disciplinary and interdisciplinary areas;
- Rich and carefully constructed majors that prepare students with the knowledge, skills and attitudes to serve faithfully and effectively in multiple professional settings;
- Preparation for graduate study including opportunities for students to engage in research with faculty and staff;
- A strong focus on experiential learning and community engagement in local, national and international settings;
- Partnerships with schools, businesses, non-profit organizations and social service agencies;
- An understanding of how our disciplines can support our Christian calling to bring redemption, reconciliation, and justice to a world in need

The following academic departments and programs are housed in the School of Business, Education and Social Sciences:

- Academic English Program
- Department of Education
- Department of Human Development and Family Science
- Department of Business
- Department of Psychology
- Department of Social Work
- Department of Sociology, Anthropology and Criminal Justice
- Early Learning Center
- International Business Institute
- Teacher Education Program

ACADEMIC ENGLISH PROGRAM

Director: Cindy Goforth

Administrative Assistant: Donna Zack

Mission

The mission of the Academic English Program (AEP) is to prepare our international students for study in an American college and to help them participate in American society. We are committed to preparing students linguistically, academically, spiritually and culturally for studying at Messiah College.

The Academic English Program requirements include:

Fall semester. 4-9 credits and 6-14 AEP hours

IEAP 050 Academic Reading I (3 AEP hours)

IAEP 060 Academic Writing I (3 AEP hours)

IAEP 065 Christian Life and Language (2 AEP hours)

IEAP 075 Academic Listening and Speaking I (3 AEP hours)

IAEP 080 American Perspectives I with lab (2 AEP hours)

GEST 140 Adaptation to American Education (1 credit)

GEST 140S Lab (1 AEP hour)

*Three credits from the following:*¹

ART 103 Introduction to Drawing (3)

CIS 171 Problem Solving with Computers (3)

COMM 105 Fundamentals of Oral Communication² (3)

HDFS 142 Introduction to Interpersonal Relations² (3)

Spring semester. 6-10 credits and 6-12 AEP hours

J-term

IAEP 040 Academic Skills (3 AEP hours)

Spring term

IAEP 055 Academic Reading II (3 AEP hours)

IAEP 070 Academic Writing II (3 AEP hours)

IAEP 085 Academic Listening and Speaking II (3 AEP hours)

IDFY 101 First Year Seminar (3 credits)

*Three credits from the following:*¹

ART 103 Introduction to Drawing

CIS 171 Problem Solving with Computers

COMM 105 Fundamentals of Oral Communication²

HDFS 142 Introduction to Interpersonal Relations²

¹Other courses if approved by the Academic English Program Director.

²Pending the student's verbal ability

IAEP 040 Academic Skills (3 AEP hours)

This course provides international students an opportunity to develop the academic skills and vocabulary necessary for successful study at Messiah College. Students will learn how to access helpful resources available to them through the library, Learning Center and Writing Center. Skills and habits for college success will be identified and practiced including time management, goal setting, study skills, note taking, the dynamics of group work, and learner autonomy. Students will prepare and deliver two individual presentations, one presentation with a partner, and one poster presentation, utilizing the skills and resources introduced in this course.

IAEP 050 Academic Reading I (3 AEP hours)

This course provides international students an opportunity to develop the reading and critical thinking skills they need to achieve academic success. Students will learn and apply intermediate level

academic reading skills and strategies to improve comprehension of a variety of realistic academic texts. This course will help students build their academic vocabulary through the use of vocabulary techniques such as making good use of the dictionary, learning new vocabulary from reading, guessing meaning from context, recognizing collocations, and understanding sentence structure and reference. There will be an emphasis on learning and utilizing critical thinking skills to analyze and evaluate academic texts.

IAEP 055 Academic Reading II (3 AEP hours)

This course provides international students an opportunity to continue developing the reading and critical thinking skills they need to achieve academic success. Students will learn and apply high-intermediate level academic reading skills and strategies to improve comprehension of a variety of realistic academic texts. Students will continue to build their academic vocabulary as they learn about synonyms, negative and positive connotations of words, phrases, word parts, inferring meaning from context, and learning new vocabulary from reading. There will be continued emphasis on learning and utilizing critical thinking skills to analyze and evaluate academic texts.

IAEP 060 Academic Writing I (3 AEP hours)

This course provides international students an opportunity to develop academic writing skills. Students will learn and apply intermediate level academic writing skills and strategies to improve their writing ability and fluency. This course will help students gain an understanding of the components of a well-written paragraph and essay. Students will apply their knowledge to plan and compose various types of academic paragraphs and essays. This course will help students build their academic vocabulary as they use corpus-informed vocabulary, collocations, and phrases to complete writing assignments. Students will learn skills to help them avoid plagiarism and express their own ideas.

IAEP 065 Christian Life and Language (2 AEP hours)

This course provides English learners with an opportunity to acquire the language and understand the concepts associated with the Christian faith as it is practiced at Messiah College. This course is organic and dynamic in nature with some course content derived from Chapel experiences. Course activities may include learning and analyzing songs, reading through chapel talks, and discussions of words, practices and beliefs related to Christianity and Christian living.

IAEP 070 Academic Writing II (3 AEP hours)

This course provides international students an opportunity to continue developing academic writing skills. Students will learn and apply high-intermediate level academic writing skills and strategies to improve their writing ability and fluency and avoid plagiarism. The writing skills focused on in this course include: responding to a writing prompt; writing a thesis statement; using words that show differences, comparison, and cause and effect; understanding purpose, audience and tone; using sentence variety, and avoiding faulty logic. This course will help students continue to build their academic vocabulary as they use corpus-informed vocabulary, collocations, and phrases to complete writing assignments.

IAEP 075 Academic Listening and Speaking I (3 AEP hours)

This course introduces a number of university-level listening and speaking skills needed to understand academic material presented in lectures, engage in classroom discussions and make academic presentations. Students will learn the typical organizational structures

and structure cues used by academic lecturers and practice note taking. Students will learn how to develop and deliver academic presentations, participate in small group meetings and take part in debates. There is a focus on group participation, equal sharing of group projects, self-evaluation, and critiques of the presentation styles of peers and lecturers.

IAEP 080 American Perspectives I with lab (2 AEP hours)

This course provides English learners with an opportunity to acquire an understanding of and appreciation for American perspectives and values, while improving reading, writing, and speaking skills. Possible topics covered in assigned readings include traditions, music, creativity, government, humanitarian service and America's relationships within the global community. With a particular linguistic focus on pronunciation, this course seeks to help international students understand American perspectives and to enable them to speak with clarity and conviction on their own beliefs and values. This course includes several field trips.

IAEP 085 Academic Listening and Speaking II (3 AEP hours)

This course provides students an opportunity to continue developing the university-level listening and speaking skills needed to understand lectures, engage in classroom discussions and make academic presentations. Students will practice advanced note-taking skills, including understanding, interpreting, and explaining charts and graphic organizers used in academic lectures and presentations. Students will make several 5-minute presentations, utilizing visual aids, and one joint presentation. Students will continue to practice their presentation skills as they research, prepare and present longer (10 minute) academic presentations. There is focus on group participation, equal sharing of group projects, self-evaluation, and critiques of the presentation styles of peers and lecturers.

BUSINESS

Department Chair:	Andrew Babyak
Administrative Assistant:	Mindy Lange
Professors:	J. Dose, D. Hagenbuch, M. Zigarelli
Associate Professors:	K. Johnston, J. Krimmel
Assistant Professor:	A. Babyak, M. Dolislager, D. Safer, T. Mannah-Blankson, R. Sauder, K. Quesenberry

Majors and Minors

The Department of Business offers the following majors:

- Accounting (B.S.)
- Business Administration (B.S.) *with concentrations in:*
 - Entrepreneurship
 - Human Resource Management
 - Leadership
 - Technology and Operations Management
- Economics (B.S. or B.A.)
- Economic Development (B.A.) *with concentrations in:*
 - Business
 - Public Policy
 - Sustainability
- Finance (B.S.)
- International Business (B.S.)
- Marketing (B.S.)

The Department of Business offers the following minors:

- Accounting
- Business Administration
- Economics
- Economic Development
- Finance
- Human Resource Management
- Leadership (Details in the Interdisciplinary section)
- Marketing

Mission

The mission of the Department of Business is to graduate excellent students of exemplary character who have a Christian world view, a global perspective, and a passion to serve Christ in the marketplace and the world.

Objectives

Upon graduating from Messiah College with a major in the Department of Business students should:

1. Possess leadership, critical thinking, problem solving, and decision-making skills;
2. Demonstrate effective oral, written, and interpersonal communication;
3. Work effectively in teams;
4. Have an appreciation of information technology and be competent in computer use and in computer-related problem-solving;
5. Be able to understand and analyze financial statements;
6. Understand the legal environment of business and be familiar with the primary laws regulating the typical business operation;
7. Have an understanding of the opportunities and implications of globalization for U.S. business and the world community;
8. Have a Christian faith-based approach to moral decision-making and an awareness of ethical issues common in the workplace;

- 9 Be prepared academically for graduate study;
10. Have developed a biblical work ethic, matured in Christian character and faith, and committed themselves to the stewardship of God's creation.

Department Core Requirements

All majors within the Department of Business take foundational courses in accounting, business information systems, business law, economics, finance, management, marketing, and statistics. Students then elect to major in one of five disciplines. Course work offers sound preparation for employment in both public and private accounting, large and small businesses, governmental service, and nonprofit organizations. Students may also choose to enrich their business education program at numerous study abroad locations. The core courses for all majors (except the Bachelor of Arts degrees in Economics and Economic Development) are:

- BUSA 102 Opportunities in Business (1)
- BUSA 120 Principles of Management (3)
- BUSA 381 Business Law I: (3)
- BUSA 459 Strategic Management (3)
- CIS 190 Strategic Use of Information Technology (3)
- ECON 120 Principles of Macroeconomics (3)
- ECON 220 Principles of Microeconomics (3)
- FINA 305 Financial Management (3)

Three to four credits of the following, based on a student's major:

- MATH 107 Applied Mathematics for Management (3)
- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)
- MRKT 130 Marketing Principles (3)
- STAT 281 Applied Statistics for Management (3)

Accounting Major

This major specifically prepares students to meet the ever-increasing market demand for liberally trained accountants. Messiah College students have the option of concentrating in either public or corporate accounting. After taking a special review course in their senior year, students are prepared for the CPA examination before they graduate. Over the past 20 years, Messiah College students who have taken the CPA exam have ranked in the top five in the state for percentage of parts passed.

Accounting (B.S.) (61-62 credits)

- ACCT 141 Financial Accounting (3)
- ACCT 242 Managerial Accounting (3)
- ACCT 301 Intermediate Accounting I (3)
- ACCT 302 Intermediate Accounting II (3)
- ACCT 303 Intermediate Accounting III (3)
- ACCT 343 Cost Accounting (3)
- ACCT 347 Federal Individual Income Taxes (3)
- ACCT 440 Advanced Accounting (3)
- ACCT 442 Auditing (3)
- BUSA 102 Opportunities in Business (1)
- BUSA 120 Principles of Management (3)
- BUSA 370 Moral Issues in Business (3)
- BUSA 381 Business Law I: The Legal Foundation for Business (3)
- BUSA 459 Strategic Management (3)
- CIS 190 Strategic Use of Information Technology (3)
- ECON 120 Principles of Macroeconomics (3)
- ECON 220 Principles of Microeconomics (3)
- FINA 305 Financial Management (3)

Three to four credits from the following:

- MATH 107 Applied Mathematics for Management (3)

- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)
- MRKT 130 Marketing Principles (3)
- STAT 281 Applied Statistics for Management (3)

Business Administration Major

The Business Administration Major offers students the opportunity to tailor their curriculum across business disciplines emphasizing career themes such as: 1) general management, 2) development of quantitative analysis skills in a business context, and 3) preparation for management of small businesses and 4) stewardship of human resources. Students not choosing a concentration can customize their degree program by selecting upper-level business courses that meet their career goals.

Business Administration (B.S.) (58-59 credits)

Core requirements (37-38 credits)

- ACCT 141 Financial Accounting (3)
- ACCT 242 Managerial Accounting (3)
- BUSA 102 Opportunities in Business (1)
- BUSA 120 Principles of Management (3)
- BUSA 381 Business Law I: The Legal Foundation for Business (3)
- BUSA 459 Strategic Management (3)
- CIS 190 Strategic Use of Information Technology (3)
- ECON 120 Principles of Macroeconomics (3)
- ECON 220 Principles of Microeconomics (3)
- FINA 305 Financial Management (3)

Three-four credits from the following:

- MATH 107 Applied Math for Management (3)
- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)
- MRKT 130 Marketing Principles (3)
- STAT 281 Applied Statistics for Management (3)

One of the following options:

Business Administration Major (no concentration) (21 credits)

Three credits from the following:

- BUSA 356 Decision-Making Tools in Management (3)
- BUSA 360 Operations Management (3)
- CIS 381 Information Systems and Managers (3)
- ECON 302 Intermediate Microeconomics (3)
- MRKT 339 Market Research (3)
- HRM or LEAD 3xx or 4xx course (3)

Fifteen credits from the following:

- 300-level or 400-level ACCT, BUSA, ECON, FINA, HRM, IBI, LEAD, or MRKT courses
- Selected CIS courses – see list below*

*CIS courses include:

- CIS 343 Introduction to E-Commerce (3)
- CIS 381 Information Systems and Managers (3)
- CIS 411 Systems Analysis and Design Concepts (3)
- CIS 412 Systems Analysis and Design Applications (3)

Entrepreneurship Concentration (21 credits) prepares students to start a new venture, be a productive member of an innovative firm, assume responsibilities in a family business, or become a productive manager in a growing business.

Three credits from the following:

- BUSA 356 Decision-Making Tools in Management (3)
- BUSA 360 Operations Management (3)
- CIS 381 Information Systems and Managers (3)
- ECON 302 Intermediate Microeconomics (3)

BUSA 380 Small Business Development (3)

BUSA 385 Entrepreneurship (3)

Three credits from the following:

- IBUS 377 Ministry in International Business (3)
- LEAD 312 Leading Organization Change (3)
- MRKT 333 Consumer Behavior (3)
- MRKT 337 Integrated Marketing Communications (3)
- MRKT 357 Personal Selling (3)

MRKT 339 Market Research

Six credits from the following:

- 300-level or 400-level ACCT, BUSA, ECON, FINA, HRM, IBI, LEAD, or MRKT courses
- Selected CIS courses – see list above*

Human Resource Management Concentration (21 credits) Prepares students to be effective stewards of human capital through evidence-based practices in staffing, compensation, leadership and employee relations.

Three credits from the following:

- BUSA 356 Decision-Making Tools in Management (3)
- BUSA 360 Operations Management (3)
- CIS 381 Information Systems and Managers (3)
- ECON 302 Intermediate Microeconomics (3)
- MRKT 339 Market Research (3)

Three credits from the following:

- ECON 315 The Economics of Wages and Employment (3)
- HRM 346 Employee and Labor Relations (3)
- HRM 351 Working Internationally (3)
- HRM 356 Compensation and Benefits Management (3)
- HRM 426 Topics in Human Resource Management (3)

HRM 301 Human Resource Management (3)

HRM 311 Organizational Behavior (3)

HRM 312/LEAD 312 Leading Organizational Change (3)

Six credits from the following:

- 300-level or 400-level ACCT, BUSA, ECON, FINA, HRM, IBI, LEAD, or MRKT courses
- Selected CIS courses – see list above*

Leadership Concentration (21 credits) is available for students who are particularly interested in developing the skills to lead and influence others.

BUSA 356 Decision-Making Tools in Management (3)

Three credits from the following:

- COMM 301 Persuasion: Theory and Practice (3)
- COMM 333 Business and Organizational Communication (3)
- COMM 353 Crisis Communication and Media Relations (3)
- HRM 311 Organizational Behavior (3)

LEAD 310 Leadership Theory and Development (3)

LEAD 312/HRM 312 Leading Organizational Change (3)

LEAD 320 Issues and Challenges in Leadership (3)

Six credits from the following:

- 300-level or 400-level ACCT, BUSA, ECON, FINA, HRM, IBI, LEAD, or MRKT courses
- Selected CIS courses – see list above*

Technology and Operations Management Concentration (21 credits) For those who have an interest in technology and operations' increasing impact on the globalization of the world

BUSA 358 Making a Better World? (3)

BUSA 360 Operations Management (3)

Nine credits from the following:

- CIS 181 Programming I (3)
- CIS 191 Web Development I: Client Side (3)
- CIS 251 Hardware and Software (3)
- CIS 283 Business Systems Applications (3)
- CIS 284 Programming II (3)
- CIS 291 Web Development II: Server Side (3)
- CIS 343 Introduction to E-Commerce (3)
- CIS 381 Information Systems and Managers (3)
- CIS 401 Webmasters and Servers (3)
- CIS 411 Systems Analysis and Design Concepts (3)
- CIS 412 Systems Analysis and Design Applications (3)
- CIS 415 Data Communications and Networking (3)
- CIS 490 Topics in Computer Information Science (3)

Six credits from the following:

- 300-level or 400-level ACCT, BUSA, ECON, FINA, HRM, IBI, LEAD, MRKT courses or selected CIS courses (list above.* Courses taken as part of the 9-credit requirement above do **not** meet this requirement.

Economics Major

This major fosters an appreciation of the importance of personal economic life as well as an understanding of the U.S. economic system and the global context within which it operates. The B.S. in Economics is intended for the student who wants to major in economics but also receive a broad background in business. The B.A. in Economics is designed for the student who wants to focus on economics, but do so within a liberal arts curriculum. Both majors offer broad preparation for any career choice while also providing a solid foundation for graduate studies in economics, law or business.

Economics (B.S.) (61–62 credits)

- ACCT 141 Financial Accounting (3)
- ACCT 242 Managerial Accounting (3)
- BUSA 102 Opportunities in Business (1)
- BUSA 120 Principles of Management (3)
- BUSA 356 Decision-Making Tools in Management (3)
- BUSA 381 Business Law I: The Legal Foundation for Business (3)
- BUSA 459 Strategic Management (3)
- CIS 190 Strategic Use of Information Technology (3)
- ECON 120 Principles of Macroeconomics (3)
- ECON 220 Principles of Microeconomics (3)
- ECON 301 Intermediate Macroeconomics (3)
- ECON 302 Intermediate Microeconomics (3)
- ECON 303 Comparative Political Economy (3)
- FINA 305 Financial Management (3)
- STAT 281 Applied Statistics for Management (3)

Twelve credits from the following:

- ECON 117 Issues in Environmental Economics (3)
- ECON 307/FINA 307 Money and Financial Markets (3)
- ECON 312 Economic Development (3)
- ECON 315 The Economics of Wages and Employment (3)
- IBUS 375 International Business and World Economy (3)
- MRKT 130 Marketing Principles (3)

Three to four credits from the following:

- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)

Economics (B.A.) (39-40 credits)

ACCT 141 Financial Accounting (3)
CIS 190 Strategic Use of Information Technology (3)
ECON 120 Principles of Macroeconomics (3)
ECON 220 Principles of Microeconomics (3)
ECON 301 Intermediate Macroeconomics (3)
ECON 302 Intermediate Microeconomics (3)
ECON 303 Comparative Political Economy (3)

Twelve credits from the following:

ECON 117 Issues in Environmental Economics (3)
ECON 307/FINA 307 Money and Financial Markets (3)
ECON 312 Economic Development (3)
ECON 315 The Economics of Wages and Employment (3)
IBUS 375 International Business and World Economy (3)

Three credits from the following:

MATH 108 Intuitive Calculus with Applications (3)
MATH 111 Calculus I (4)

Three credits from the following:

STAT 269 Introductory Statistics (3)
STAT 281 Applied Statistics for Management (3)
STAT 291 Statistics for Mathematical Sciences I (3)

Economic Development Major

This major is for students who want to make a difference in the world through a discipline with an applied focus. Economic Development is a field within the discipline of economics that focuses on bringing economic growth and a higher quality of life at both the community level as well as the macro society level. Students with a major in Economic Development will have the analytical and quantitative tools and foundation necessary for careers in microfinance, impact investing, project management, program planning and budgeting, business development, or policy creation.

Economic Development (B.A.) (57-60 credits)**Core requirements (42-45 credits)**

BUSA 120 Principles of Management (3)
ECON 117 Issues in Environmental Economics (3)
ECON 120 Principles of Macroeconomics (3)
ECON 220 Principles of Microeconomics (3)
ECON 260/IDCC 260 Cross Cultural: Perspectives on Development (3)*
ECON 301 Intermediate Economics (3)
ECON 302 Intermediate Microeconomics (3)
ECON 312 Economic Development (3)
ECON 371 Mobilizing Financial Resources for Development (3)

Three credits from the following:

ECON 303 Comparative Political Economy (3)
IBI 331 Comparative Economic Systems (3)

Three credits from the following:

IBUS 375 International Business and World Economy (3)
IBI 350 International Trade and Finance (3)

Three credits from the following:

MATH 107 Math for Management (3)
MATH 108 Intuitive Calculus with Applications (3)

*One of the following**:*

ECON 393 Field Experience in Development (0-3)
INTE 391 Internship (1-3)

Three credits from the following:

STAT 281 Applied Statistics for Management (3)
STAT 269 Introductory Statistics (3)

Eighteen credits from one of the following concentrations:

Business Concentration (18 credits)

ACCT 141 Financial Accounting (3)
ACCT 242 Managerial Accounting (3)
BUSA 380 Small Business Development (3)
MRKT 130 Marketing Principles (3)

Three credits from the following:

POLI 212 International Politics (3)
POLI 213 Comparative Politics (3)

Three credits from the following:

SOAN 212 Cultural Anthropology (3)
BIOL 216 Environmental Issues and Sustainable Solutions (3)

Public Policy Concentration (18 credits)

POLI 212 International Politics (3)
POLI 213 Comparative Politics (3)
POLI 323 Public Policy (3)
SOAN 212 Cultural Anthropology (3)

Three credits from the following:

POLI 222 Politics in Latin America (3)
POLI 346 Russia after Communism (3)
POLI 370 Topics in International Relations: Modern Chinese Politics (3)

Three credits from the following:

POLI 315 United States Foreign Policy (3)
SOAN 381 Topics in Non-Western Cultures (3)

Sustainability Concentration (18 credits)

BIOL 140/SUST 140 Ecology and Sustainability (3)
BIOL 216 Environmental Issues and Sustainable Solutions (3)
BIOL 315 Environmental Ethics (3)
SOAN 212 Cultural Anthropology (3)

Three credits from the following:

POLI 212 International Politics (3)
POLI 213 Comparative Politics (3)

Three credits from the following:

SOAN 305 Harrisburg Neighborhoods (3)
SOAN 315 Urban Sociology (3)

*Requires an additional fee.

**Students may fulfill this requirement with the International Business Institute, a second IDCC 260 course or an internship.

Finance Major

A major in finance trains students to apply financial principles and create financial models to formulate solutions to case studies and current events in both personal and corporate finance. This program focuses on practical application using state-of-the-art techniques that will uniquely prepare and equip students to be effective leaders in the field of finance.

Finance (B.S.) (58-59 credits)

ACCT 141 Financial Accounting (3)
ACCT 242 Managerial Accounting (3)
ACCT 301 Intermediate Accounting I (3)
BUSA 102 Opportunities in Business (1)
BUSA 120 Principles of Management (3)
BUSA 381 Business Law I: The Legal Foundation (3)
BUSA 459 Strategic Management (3)
CIS 190 Strategic Use of Information Technology (3)
ECON 120 Principles of Macroeconomics (3)
ECON 220 Principles of Microeconomics (3)
FINA 305 Financial Management (3)
FINA 307/ECON 307 Money and Financial Markets (3)

FINA 351 Investments (3)
FINA 405 Corporate Finance (3)
FINA 410 Security Analysis & Valuation (3)
FINA 415 Financial Institution Management (3)

Three credits from the following:

FINA 450 Series 7 Brokerage Preparation (3)
FINA 475 Advanced Corporate Finance (3)

Three to four credits from the following:

MATH 108 Intuitive Calculus with Applications (3)
MATH 111 Calculus I (4)

MRKT 130 Marketing Principles (3)

STAT 281 Applied Statistics for Management (3)

International Business Major

This major is designed to prepare students to work in the global marketplace. Integrating both vocation and ministry, the major provides a wealth of opportunities that combine business and missions. In addition to on-campus courses, students in this major attend the International Business Institute, a ten-week study/travel program in Europe, Russia, China, and India. This summer program is complemented by a required experience in a developing country.

International Business (B.S.) (73–74 credits)

ACCT 141 Financial Accounting (3)
ACCT 242 Managerial Accounting (3)
BUSA 102 Opportunities in Business (1)
BUSA 120 Principles of Management (3)
BUSA 381 Business Law I: The Legal Foundation for Business (3)
BUSA 459 Strategic Management (3)

Three credits from the following:

BUSA 356 Decision-Making Tools in Management (3)
BUSA 360 Operations Management (3)
CIS 381 Information Systems and Managers (3)
ECON 302 Intermediate Microeconomics (3)
MRKT 339 Market Research (3)

CIS 190 Strategic Use of Information Technology (3)

ECON 120 Principles of Macroeconomics (3)

ECON 220 Principles of Microeconomics (3)

ECON 312 Economic Development (3)

FINA 305 Financial Management (3)

IBI 331 Comparative Economic Systems (3)

IBI 339 Global Marketing (3)

IBI 350 International Trade and Finance (3)

IBI 390 Global Business Strategy (3)

IBUS 377 Ministry in International Business (3)

Three or four credits from the following:

MATH 107 Applied Mathematics for Management (3)
MATH 108 Intuitive Calculus with Applications (3)
MATH 111 Calculus I (4)

MRKT 130 Marketing Principles (3)

POLI 212 International Politics (3)

STAT 281 Applied Statistics for Management (3)

12 credits of a foreign language [must be completed in the same language]

International Business Institute

Managing Director: Michael Nagel

The International Business Institute is designed to give students in business, economics, and related areas a distinctive opportunity for a term of study that incorporates the international dimension of these fields in an experiential context overseas. The program is ten weeks in length and includes periods of residence in key locations as well as coordinated site visits and presentations in the major political and economic centers of Europe, India, and China.

Marketing Major

A major in marketing prepares students for careers in management that are directly related to the process of facilitating the flow of goods and services from producers to consumers. This major takes an interdisciplinary approach to training students for a variety of career possibilities including marketing management, marketing research, advertising, customer service, public relations, merchandising, retailing, and sales—customizing the major based on a student's particular interests. Students are encouraged to pursue careers in private industry, non-profit organizations, and the public sector.

Marketing (B.S.) (58–59 credits)

ACCT 131 Survey of Accounting (3)
BUSA 102 Opportunities in Business (1)
BUSA 120 Principles of Management (3)
BUSA 381 Business Law I: The Legal Foundation for Business (3)
BUSA 459 Strategic Management (3)

CIS 190 Strategic Use of Information Technology (3)

ECON 120 Principles of Macroeconomics (3)

ECON 220 Principles of Microeconomics (3)

FINA 305 Financial Management (3)

Three or four credits from the following:

MATH 107 Applied Mathematics for Management (3)
MATH 108 Intuitive Calculus with Applications (3)
MATH 111 Calculus I (4)

MRKT 130 Marketing Principles (3)

MRKT 333 Consumer Behavior (3)

MRKT 337 Integrated Marketing Communication (3)

MRKT 339 Market Research (3)

Three credits from the following:

MRKT 362 Social Media Marketing (3)*
MRKT 364 Digital Marketing (3)*

MRKT 438 Marketing Management and Strategy (3)

STAT 281 Applied Statistics for Management (3)

Nine credits from the following:

BUSA 356 Decision Making Tools in Management (3)

IBI 339 Global Marketing (3)

INTE 391 Internship (1-3)

MRKT 357 Personal Selling (3)

MRKT 360 Topics in Marketing (3)

MRKT 362 Social Media Marketing (3)*

MRKT 364 Digital Media Marketing (3)*

MRKT 391 Marketing Practicum (1-3)

SPMT 314 Sponsorship & Marketing in Sport Manage. (3)

**If a student takes MRKT 362 as part of the major requirements, the course may not apply towards the nine credits of specialized marketing. The same applies to MRKT 364.

Accounting Minor (18 credits)

ACCT 141 Financial Accounting (3)
 ACCT 242 Managerial Accounting (3)
 ACCT 301 Intermediate Accounting I (3)

Three credits from the following:

ACCT 247 Basic Income Tax (3)
 ACCT 347 Federal Individual Income Taxes (3)

Six additional credits Accounting courses (6)*

*Requires prerequisite(s), may increase the total credits required.

Business Administration Minor (19 credits)

ACCT 141 Financial Accounting (3)
 BUSA 102 Opportunities in Business (1)
 BUSA 120 Principles of Management (3)
 CIS 190 Strategic Use of Information Technology (3)
 ECON 120 Principles of Macroeconomics (3)
 MRKT 130 Marketing Principles (3)

Three credit elective from ACCT, BUSA, ECON, FINA, HRM, IBUS, LEAD, or MRKT (may not include BUSA 130)*

*Requires prerequisite(s), may increase the total credits required.

Economic Development Minor (18 credits)

ECON 120 Principles of Macroeconomics (3)
 ECON 220 Principles of Microeconomics (3)

One of the following:

ECON 301 Intermediate Macroeconomics (3)*
 ECON 302 Intermediate Microeconomics (3)*

ECON 312 Economic Development (3)
 ECON 260 Perspectives on Development (3)**
 ECON 371 Mobilizing Financial Resources for Development (3)

*Requires prerequisite(s), may increase the total credits required.

**Or another approved cross-cultural in a developing country or approved field experience.

Economics Minor (18 credits)

ECON 120 Principles of Macroeconomics (3)
 ECON 220 Principles of Microeconomics (3)

Three credits from the following:

ECON 301 Intermediate Macroeconomics*(3)
 ECON 302 Intermediate Microeconomics* (3)

*Nine additional credits of ECON courses**, may include IBUS 375 (may not include ECON 110)

*Requires prerequisite(s), may increase the total credits required.

Finance Minor (24 credits)

ACCT 131 Survey of Accounting (3)*
 ECON 220 Principles of Microeconomics (3)
 FINA 305 Financial Management (3)
 FINA 307/ECON 307 Money and Financial Markets (3)
 FINA 351 Investments (3)
 FINA 405 Corporate Finance (3)
 STAT 281 Applied Statistics for Management (3)

Three credits from the following:

FINA 410 Security Analysis and Valuation (3)
 FINA 415 Financial Institution Management (3)
 FINA 450 Series 7 Brokerage Preparation (3)
 FINA 475 Advanced Corporate Finance (3)
 FINA 360 Special Topics in Finance (3)

*Students may substitute ACCT 141 Financial Accounting and/or ACCT 242 Managerial Accounting for ACCT 141 Survey of Accounting.

Human Resource Management Minor (18 credits) Prepares students for employee relations, training and development roles in church and society.

BUSA 120 Principles of Management (3)
 HRM 301 Human Resource Management (3)
 HRM 311 Organizational Behavior (3)

Nine credits from the following:*

ECON 315 The Economics of Wages and Employment (3)
 HRM 312/LEAD 312 Leading Organizational Change (3)
 HRM 346 Employee and Labor Relations (3)
 HRM 351 Working Internationally (3)
 HRM 356 Compensation and Benefits Management (3)
 HRM 426 Topics in Human Resource Management (3)
 LEAD 310 Leadership Theory and Development (3)

*Requires prerequisite(s), may increase the total credits required.

Leadership Minor (21 credits) See Interdisciplinary section.

Marketing Minor (19 credits)

Three credits from the following:

ECON 110 Economics of Social Issues (3)
 ECON 120 Principles of Macroeconomics (3)

MRKT 130 Marketing Principles (3)

Six credits from the following:

MRKT 333 Consumer Behavior (3)
 MRKT 337 Integrated Marketing Communications (3)
 MRKT 339 Market Research (3)*

Six credits from the following:

MRKT 357 Personal Selling (3)
 MRKT 362 Social Media Marketing (3)
 MRKT 364 Digital Marketing (3)
 MRKT 391 Marketing Practicum (3)**

*Requires prerequisite(s), may increase the total credits required.

**Must be taken for a letter grade.

EDUCATION

Department Chair:	Donald A. Murk
Administrative Assistant:	TBD
Professors:	M. Burchard, J. Fisler, M. Gaither, O. Mfum-Mensah, D. Murk
Assistant Professors:	C. Buckley, S. Fischer, D. Hazen T. Keller

Majors and Minors

The Department of Education offers the following majors that lead to a B.S. degree and Pennsylvania Instructional I teacher certification:

Education with Teaching Certification in Grades PreK-4 (B.S.)	
Education with Dual Teaching Certification in Grades PreK-4 and Special Education PreK-8 (B.S.)	
Education with Teaching Certification in Grades 4-8 (B.S.)	
<i>with concentrations in:</i>	
English	Math
Math & English	Math & Social Studies
Science	Social Studies
Science & English	Science & Math
Science & Social Studies	

The Department of Education offers the following minors:

Education
Early Childhood Education (and Private Nursery School Certification)
Socio-Cultural Perspectives on Education
Speech and Language Pathology
Teaching English to Speakers of other Languages (TESOL)

In addition to the Department of Education Programs, Messiah College also offers several additional teacher preparation programs leading to Pennsylvania Instructional I certification. All of these programs are part of Messiah College's Teacher Education Program. For detailed program requirements, see the sponsoring academic department indicated for each.

Certification areas for grades 7-12:

Biology
Chemistry
English
Mathematics
Physics (Mathematics, Physics and Statistics)
Social Studies (History)

Certification areas for grades K-12:

Art (Visual Arts)
Family and Consumer Sciences Education (Human Development and Family Science)
French (Modern Languages)
German (Modern Languages)
Health and Physical Education (Health, Nutrition and Exercise Science)
Music (Music)
Spanish (Modern Languages)

See **Teacher Education Program** for detailed information regarding specific policies and procedures that govern certification requirements for all teacher preparation programs.

Mission

The Department of Education provides opportunities for students to study the dynamic and complex field of education. The mission of the Messiah College Department of Education is to develop exemplary educators who apply their knowledge, skills, Christian faith, and ethical principles to decision making, reflective thinking, and problem solving within diverse learning environments.

Early Learning Center

The **Early Learning Center** is located in the lower level of Hostetter Chapel on the College campus, and offers year-round, full-time childcare and a half-day Lab School program for College employees, students, and the community. Under the supervision of the director and master-level teachers, this program serves as a site for early childhood observations and pre-service teacher education. The Early Learning Center (using The Project Approach) is dedicated to providing a model of high quality early childhood programming for the College and the community.

Education with Teaching Certification in PreK-4

The PreK-4 Education Program prepares students to teach pre-school, kindergarten, and grades 1 through 4 in public or private institutions. The major emphasis is on the growth and development of "the whole child" with developmentally appropriate instructional activities.

Through the academic program, faculty advising, and extensive field experiences, students are broadly prepared for effective teaching in elementary schools and early childhood settings. Thinking, problem-solving, and decision-making capabilities are developed in critical areas such as instructional planning, instructional delivery, assessment, and classroom management. Particular attention also is given to subject matter preparation.

Effective early childhood and elementary school teaching requires an extensive knowledge base that represents many curricular domains. Students develop this knowledge base by studying a wide variety of subjects such as English, psychology, sociology, history, philosophy, biology, fine arts, mathematics, physical science, language arts, health, social studies, and geography. In addition, students have the opportunity to deepen their knowledge of a particular subject of their choice by completing a 12-credit disciplinary focus.

The Early Learning Center on campus provides an authentic classroom setting that allows students to gain valuable experience teaching preschool age children. Field experience students will become knowledgeable in the utilization of The Project Approach, an inquiry based teaching practice. During this placement, students will further develop behavior management strategies, hone classroom management skills, gain experience with various forms of assessment, and deepen their understanding of the whole child as it pertains to preschool age children. While serving in this co-teaching environment, field experience students will assume the responsibility of developing and implementing lessons and activities, documenting the development of children, and conferencing with parents.

Education with Teaching Certification in Grades PreK-4 (B.S.)

(95 credits)

ART/MUGE/THEA meeting QuEST requirement (3)

BIOL 106 Life Science (3)

Three credits from the following:

CIS 171 Problem Solving with Computers (3)

CIS 180 Intro to Computer and Information Science (3)

CIS 181 Computer Programming I (3)

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC 203 Educational Psychology (3)

EDUC 205 Cultural and Political Geography (3)

EDUC 208 Teaching English Language Learners K-12 (3)

EDUC 226 Children's Literature (3)

EDUC 301 Literacy: Climate, Curriculum & Instruction I (3)

EDUC 302 Literacy: Climate, Curriculum & Instruction II (3)

EDUC 303 Mathematics: Climate, Curriculum & Instruction I (3)

EDUC 304 Mathematics: Climate Curriculum & Instruction II (2)

EDUC 330 Instructional Design I (3)

EDUC 342 Social Studies: Climate, Curriculum and Instruction for Elementary School (3)

EDUC 347 Science: Climate, Curriculum & Instruction Elem (3)

EDUC 407 Student Teaching Seminar (1)

EDUC 414 Developmental Programming: Early Childhood (3)

EDUC 415 Evidence-based Practices in Early Childhood Educ. (3)

EDUC 420 Professional Issues in Education (2)

EDUC 430 Instructional Design II (1)

EDUC 465 Early Childhood Internship (0)

ENGL 160 Introduction to World Literature (3)

Three credits from the following (3):

HIST 141 U.S. History Survey to 1865 (3)

HIST 142 U.S. History Survey Since 1865 (3)

MATH 209/EDUC 209 Principles & Structures of Mathematics (3)

PHSC 102 Foundations of Physical Science (3)

PSYC 210/HDFS 210 Child Development (3)

TEP 210 Sophomore Field Experience (0)

TEP 312 Field Experience II in PreK-Grade 2 (0)

TEP 314 Field Experience III in Grade 2-4 (0)

TEP 434 Student Teaching for PreK-4 (8)

Required Disciplinary Focus (12 credits)

All students who major in Education with PreK-4 teaching certification complete a 12-credit Disciplinary Focus to provide depth in an academic discipline other than Education. Students elect 12 credits from a single academic discipline (or two closely related disciplines). The 12 credits may not overlap with any other QuEST or major requirements. **Course selections must be approved by the advisor and the Department of Education chair.** Students who wish to complete a college-approved minor will need to take additional courses.

Education with Dual Teaching Certification in Grades PreK-4 and Special Education (PreK-8)

The PreK-4 and Special Education Dual Certification Program prepares students to teach regular education in elementary classrooms or to serve as special education teachers. Students who complete the program are eligible for Pennsylvania Instructional I teacher certification in PreK-4 and Special Education (PreK-8). Students who pursue Special Education certification must complete the dual certification program, majoring in Education with PreK-4 Teaching Certification. Completing the Special Education program satisfies the Disciplinary Focus requirement for the major. To be

eligible for the Special Education certification program, students must meet all the requirements for admission to the Teacher Education Program (TEP). In addition to satisfying all TEP admissions procedures and requirements, students who wish to pursue the SPED dual certification program must take Introduction to Special Education (EDSP 207), with a GPA of 3.0 (grade of B) or better. A written endorsement by the instructor of EDSP 207 is also required for admission to the Special Education certification program.

Education with Dual Teaching Certification in Grades PreK-4 and Special Education PreK-8 (B.S.) (99 credits)

ART/MUGE/THEA meeting QuEST requirement (3)

BIOL 106 Life Science (3)

Three credits from the following:

CIS 171 Problem Solving with Computers (3)

CIS 180 Introduction to Computer & Information Science (3)

CIS 181 Computer Programming I (3)

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDSP 396/HDFS 396 Infants, Toddlers, and Families (3)

EDSP 397 Instructional Strategies: Mild - Moderate Disabilities (3)

EDSP 398 Instructional Strategies: Severe-Profound Disabilities (3)

EDSP 399 Positive Behavior Support for Learners with Emotional, Behavioral and Social Disabilities (3)

EDSP 409 Psychological Testing (3)

EDUC 201 Education and American Society (3)

EDUC 203 Educational Psychology (3)

EDUC 205 Cultural and Political Geography (3)

EDUC 208 Teaching English Language Learners in K-12 (3)

EDUC 209/MATH 209 Principles & Structures of Mathematics (3)

EDUC 226 Children's Literature (3)

EDUC 301 Literacy: Climate, Curriculum and Instruction I (3)

EDUC 302 Literacy: Climate, Curriculum and Instruction II (3)

EDUC 303 Mathematics: Climate, Curriculum & Instruction I (3)

EDUC 304 Mathematics: Climate Curriculum & Instruction II (2)

EDUC 330 Instructional Design I (3)

EDUC 342 Social Studies: Climate, Curriculum and Instruction for Elementary School (3)

EDUC 347 Science: Climate, Curriculum and Instruction for Elementary School (3)

EDUC 407 Student Teaching Seminar (1)

EDUC 414 Developmental Programming: Early Childhood (3)

EDUC 415 Evidence-Based Practices in ECE (3)

EDUC 420 Professional Issues in Education (2)

EDUC 430 Instructional Design II (1)

ENGL 160 Introduction to World Literature (3)

Three credits from the following:

HIST 141 U.S. History Survey to 1865 (3)

HIST 142 U.S. History Survey from 1865 (3)

PSYC 210/HDFS 210 Child Development (3)

PHSC 102 Foundations of Physical Science (3)

TEP 210 Sophomore Field Experience (0)

TEP 312 Field Experience II in PreK-Grade 2 (0)

TEP 314 Field Experience III in Grade 2-4 (0)

TEP 420 Special Education Internship (0)

TEP 432 Student Teaching: PreK-4 and Special Education (9)

Education with Grade 4–8 Teaching Certification

The Education with Grade 4-8 Teaching Certification program prepares students to teach all subjects in grades four through six and to specialize in one or two subject areas for grades seven and eight. Through the academic program, faculty advising, and extensive field experiences, students are broadly prepared for effective teaching in upper elementary and middle school grades. Thinking, problem-solving, and decision-making capabilities are developed in critical areas such as instructional planning and delivery, assessment, and classroom management. Particular attention also is given to subject matter preparation. Students in this program take the same core of courses. Additionally, they select one of nine subject tracks in which to concentrate. These tracks are:

Option I (12 credits in three subject areas and 30 credits in one of the following):

English	Mathematics
Science	Social Studies

Option II: (12 credits in two subject areas and 21 in two of the following, one of which must be mathematics or science):

English	Mathematics
Science	Social Studies

Education with Teaching Certification in Grades 4-8 (B.S.)

(81-82 credits)

BIOL 106 Life Sciences (3)

Three credits from the following:

- CIS 171 Problem Solving with Computers (3)
- CIS 180 Introduction to Computer and Information Science (3)
- CIS 181 Computer Programming I (3)

EDSP 207 Intro to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC 203 Educational Psychology (3)

EDUC 205 Cultural and Political Geography (3)

EDUC 208 Teaching English Language Learners in K-12 (3)

EDUC 209 Principles and Structures of Mathematics (3)

EDUC 226 Children's Literature (3)

EDUC 302 Literacy: Climate, Curriculum and Instruction II (3)

EDUC 304 Mathematics: Climate, Curriculum and Instruction II (3)

EDUC 305 Middle Level Methods (3)

EDUC 331 Instruction Design and Assessment for Middle and Secondary Grades (3)

EDUC 342 Social Studies: Climate, Curriculum and Instruction for Elementary School (3)

EDUC 346 Socio-Cultural Perspectives on Education (3)

EDUC 347 Science: Climate, Curriculum and Instruction for Elementary School (3)

EDUC 407 Student Teaching Seminar (1)

EDUC 420 Professional Issues in Education (2)

ENGL 160 Introduction to World Literature (3) (ENGL 122–176 for all Social Studies concentrations)

ESS 201 Earth and Space Science (3)

Three credits from the following (both for Social Studies Concentrations):

- HIST 141 U.S. History Survey to 1865 (3)
- HIST 142 U.S. History Survey Since 1865 (3)

PHSC 102 Foundations of Physical Science (3)

PSYC 311/HDFS 311 Adolescent Development (3)

TEP 210 Sophomore Field Experience (0)

TEP 316 Field Experience II in Grade 6-8 (0)

TEP 318 Field Experience III in Grades 4-5 (0)

TEP 433 Student Teaching: Grades 4-8 (9)

One of the following subject tracks:

English (15 credits)

Three credits from the following:

ENGL 201 Introduction to English Studies I (3)

ENGL 202 Introduction to English Studies II (3)

Three credits from the following:

ENGL 310 British Literature Before 1800 (3)

ENGL 320 British Literature After 1800 (3)

ENGL 330 American Literature Before 1900 (3)

ENGL 340 American Literature After 1900 (3)

ENGL 350 Postcolonial/World Literature (3)

ENGL 360 Genre: Young Adult Literature (3)

ENGL 230 Linguistics (3)

Six credits from the following:

ENGL 203 Introduction to Creative Writing (3)

ENGL 305 Writing (3)

ENGL 370 Critical Theory (3)

Math (17 credits)

MATH 112 Calculus II (4)

MATH 307 Secondary Mathematics/Physics Instruction (2)

Three credits from the following:

STAT 269 Introductory Statistics (3)

STAT 291 Statistics for Mathematical Sciences I (3)

Four credits from the following:

MATH 211 Calculus III (4)

PHYS 201 Introductory Physics I (4)

PHYS 211 General Physics I (4)

Four credits from the following:

PHYS 201 Introductory Physics I (4)

PHYS 202 Introductory Physics II (4)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

Science (18 credits)

Three credits from the following:

BIOL 140 Ecology and Sustainability (3)

BIOL 162 Plant Form and Function (3)

BIOL 216 Environmental Issues & Sustain. Solutions (3)

BIOL 315 Environmental Ethics (3)

Three credits from the following:

BIOL 117 Field Biology (3)

BIOL 160 Molecular and Cellular Biology (4)

BIOL 161 Animal Form and Function (3)

BIOL 162 Plant Form and Function (3)

BIOL 258 Human Biology (4)

Three credits from the following:

CHEM 102 Chemistry for Living (3)

CHEM 103 Chemical Science (4)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

Four credits from the following:

PHYS 201 Introductory Physics I (4)

PHYS 202 Introductory Physics II (4)

An additional 3-5 credits from the BIOL, CHEM, or PHYS courses above, for a total of 18 credits in the concentration.

Social Studies (18 credits)

ECON 110 Economics of Social Issues (3)
 HIST 171 World Civilizations: Bronze Age to 1500 (3) or
 HIST 172 World Civilizations: 1500 to Present (3)
 HIST 258 Historical Methods (3)
 HIST 3xx World history elective (3)
 POLI 113 American Government (3)
 A second, additional course in U.S. history from the following:
 HIST 141 U.S. History Survey to 1865 (3)
 HIST 142 U.S. History Survey since 1865 (3)

Math and English (14-15 credits)

Three to four credits from the following:
 CIS 181 Computer Programming I (3)
 MATH 112 Calculus II (4)
 STAT 291 Statistics for Mathematical Sciences I (3)
 PHYS 201 Introductory Physics I (4)
 PHYS 202 Introductory Physics II (4)
 PHYS 211 General Physics I (4)
 PHYS 212 General Physics II (4)
 Three credits from the following:
 ENGL 310 British Literature Before 1800 (3)
 ENGL 320 British Literature After 1800(3)
 ENGL 330 American Literature Before 1900 (3)
 ENGL 340 American Literature After 1900 (3)
 ENGL 350 Postcolonial / World Literature (3)
 ENGL 360 Genre: Young Adult Literature (3)
 ENGL 230 Linguistics (3)
 MATH 307 Secondary Mathematics/Physics Instruction (2)
 STAT 269 Introductory Statistics (3)

Math and Social Studies (17-18 credits)

Three to four credits from the following:
 CIS 181 Computer Programming I (3)
 MATH 112 Calculus II (4)
 STAT 291 Statistics for Mathematical Sciences I (3)
 PHYS 201 Introductory Physics I (4)
 PHYS 202 Introductory Physics II (4)
 PHYS 211 General Physics I (4)
 PHYS 212 General Physics II (4)
 HIST 258 Historical Methods (3)
 Three credits from the following:
 HIST 171 World Civilizations: Bronze Age to 1500
 HIST 172 World Civilizations: 1500 to present
 HIST 3xx World history elective (3)
 MATH 111 Calculus I (4)
 MATH 307 Secondary Mathematics/Physics Instruction (2)
 STAT 269 Introductory Statistics (3)
 A second, additional course in U.S. history from the following:
 HIST 141 U.S. History Survey to 1865 (3)
 HIST 142 U.S. History Survey since 1865

Science and English (15-17 credits)

Three credits from the following:
 BIOL 140 Ecology and Sustainability (3)
 BIOL 162 Plant Form and Function (3)
 BIOL 216 Environmental Issues and Sustainable
 Solutions (3)
 BIOL 315 Environmental Ethics (3)
 Three to four credits from the following:
 CHEM 102 Chemistry for Living (3)
 CHEM 103 Chemical Science (4)
 CHEM 105 General Chemistry I (4)

ENGL 230 Linguistics (3)

Three credits from the following:
 ENGL 310 British Literature Before 1800 (3)
 ENGL 320 British Literature After 1800 (3)
 ENGL 330 American Literature Before 1900 (3)
 ENGL 340 American Literature After 1900 (3)
 ENGL 350 Postcolonial / World Literature (3)
 ENGL 360 Genre: Young Adult Literature (3)
 Three to four credits from the following:
 BIOL 117 Field Biology (3)
 PHYS 201 Introductory Physics I (4)

Science and Math (17-19 credits)

BIOL 117 Field Biology (3)
 Three credits from the following:
 BIOL 140 Ecology and Sustainability (3)
 BIOL 162 Plant Form and Function (3)
 BIOL 216 Environmental Issues and Sustainable
 Solutions (3)
 BIOL 315 Environmental Ethics (3)
 Three to four credits from the following:
 CHEM 102 Chemistry for Living (3)
 CHEM 103 Chemical Science (4)
 CHEM 105 General Chemistry I (4)
 PHYS 201 Introductory Physics I (4)
 MATH 307 Secondary Mathematics/Physics Instruct (2)
 Three credits from the following:
 STAT 269 Introductory Statistics (3)
 STAT 291 Statistics for Mathematical Sciences I (3)
 Three to four credits from the following:
 CIS 284 Computer Programming II (3)
 MATH 112 Calculus II (4)
 MATH 261 Linear Algebra (3)
 STAT 292 Statistics for Mathematical Sciences II (3)

Science and Social Studies (18-20 credits)

Three to four credits from the following:
 CHEM 102 Chemistry for Living (3)
 CHEM 103 Chemical Science (4)
 CHEM 105 General Chemistry I (4)
 Three to four credits from the following:
 BIOL 117 Field Biology (3)
 PHYS 201 Introductory Physics I (4)
 Three credits from the following:
 BIOL 140 Ecology and Sustainability (3)
 BIOL 162 Plant Form and Function (3)
 BIOL 216 Environmental Issues and Sustainable
 Solutions (3)
 BIOL 315 Environmental Ethics (3)
 HIST 258 Historical Methods (3)
 Three credits from the following:
 HIST 171 World Civilizations: Bronze Age to 1500
 HIST 172 World Civilizations: 1500 to present
 HIST 3xx World history elective (3)
 A second, additional course in U.S. history from the following:
 HIST 141 U.S. History Survey to 1865 (3)
 HIST 142 U.S. History Survey since 1865

Educational Studies (B.A.)

Enrollment in the Educational Studies major is only open to students currently in a Department of Education teacher certification major and who: a) have junior status and b) have been recommended and approved by the Department of Education chair. This major cannot be student initiated. Departmental recommendation for this major is only granted when the student is not approved for enrollment in the field-based experiences of the junior or senior year, the Professional Semester, or it has been determined that the student cannot successfully complete the roles and responsibilities of the student teaching experience. This major will not lead to, nor result in, Messiah College recommending the candidate for Pennsylvania Department of Education public school teacher certification.

Minors

Early Childhood Education Minor (24 credits)*

EDSP 207 Intro to Special Education (3)
EDUC 203 Educational Psychology (3)
EDUC 301 Literacy: Climate, Curriculum and Instruction I (3)
EDUC 303 Mathematics: Climate, Curriculum and Instruction I (3)
EDUC 325 Preschool Field Experience (0)
EDUC 414 Developmental Programming (3)
EDUC 415 Evidence-based Practices in Early Childhood Educ. (3)
HDFS 210/PSYC 210 Child Development (3)

Three credits from the following:

EDUC 226 Children's Literature (3)
HDFS 396/EDSP 396 Infants, Toddlers, and Families (3)

*Students may qualify to teach in private, licensed nursery and/or kindergarten schools by completing the ECE minor (24 credits). Upon completion of these requirements, students are eligible for certification by the Division of Private Academic Schools, Pennsylvania Department of Education, Harrisburg, PA. Students may contact the Division of Private Academic Schools for the required forms.

The **Education Minor** is designed to provide students who are not seeking teacher certification the opportunity to explore a variety of topics relevant to the field of Education. The minor is intended to provide students with opportunities to pursue their professional aspirations, explore areas of personal interest, prepare for graduate study, and prepare for roles as informed parents and citizens. Students who take the minor are required to complete two core courses (six credits). The remaining 12 credits are completed by electing ECE and/or EDUC courses. **The Education Minor does not lead to teacher certification, and students who complete the minor are not eligible for the Professional Semester, including student teaching.** Students are advised to refer to catalog course descriptions for specific course prerequisites.

Education Minor (18 credits)

EDUC 201 Education and American Society (3)
EDUC 203/PSYC 203 Educational Psychology (3)

12 credits from the following:

100-, 200-, or 300-level courses in EDUC, with the exception of EDUC 362.

Three credits outside of EDUC may be elected with approval of the Department of Education chair. Courses elected should represent areas of study that are relevant to the field of education. Such topics may include the following: learning, cognition, development, family relationships, literacy, social theory, assessment, social science research methods, philosophy, and public policy.

Socio-Cultural Perspectives on Education Minor (18 credits) The Socio-Cultural Perspectives on Education Minor is designed to provide students with in-depth treatment of sociological and cultural variables that influence educational structures and processes. The minor provides opportunities for interested students to study educational processes and structures that are often associated with urban settings and environments that represent significant degrees of cultural diversity. Students take courses that explore social and theoretical perspectives as well as curricular and instructional perspectives. The minor culminates in a community-based field experience that reflects the student's interests.

Socio-Cultural Perspectives on Education Minor (18 credits)

EDUC 201 Education and American Society (3)
EDUC 346 Socio-Cultural Perspectives on Education (3)
EDUC 362 Education Practicum: Socio-Cultural Variability (3)

Nine credits from the following:

HDFS 384/SOAN 384 Families in America
HDFS 386 Family Ethnicity and Human Services (3)
HDFS 383 Topics in Multicultural Family Studies (3)
HIST 353 Immigrant History
HIST 355 U.S. Urban History
SOAN 212 Cultural Anthropology (3)
SOAN 315 Urban Sociology (3)
SOAN 305 Harrisburg Neighborhoods (3)
SOAN 335 Social Conflict, Justice and Peacemaking (3)
SOAN 356 Social Inequality (3)

Note: Substitution of courses taken in Study Abroad programs may be appropriate. These substitutions must be approved by the Education Department chair.

Speech and Language Pathology Minor (20 credits)

BIOL 225 Speech Anatomy and Physiology (3)
EDUC 212 Language Development (2)
ENGL 230 Linguistics (3)
EDSP 385 Communication Disorders (3)

Three credits from the following:

PSYC 271 Statistical Methods in Psychology (3)
STAT 269 Introductory Statistics (3)

Three credits from the following:

EDUC 203/PSYC 203 Educational Psychology (3)
PSYC 209/HDFS 209 Life Span Development (3)
SOWK 221 Human Behavior (3)
PHYS 218 Speech Hearing Science (3)

Teaching English to Speakers of Other Languages (TESOL) Specialist Certificate or Minor. Courses in theoretical and applied linguistics prepare students to learn, teach, and analyze language using methods and tools from contemporary linguistic theory. Students already pursuing a PreK-4, Grade 4-8, or Secondary teaching certification who complete the TESOL minor are also eligible for the Pennsylvania ESL Program Specialist (K-12) Certificates.

TESOL/ESL Minor (18 credits)*

Requirements for students majoring in Education with Teaching Certification in Grades PreK-4 or in Education with Dual Teaching Certification in Grades PreK-4 and Special Education PreK-8 or with a secondary education certification major.

EDUC 208 Teaching English Language Learners K-12 Schools (3)
EDUC 309 English Language Learning in TESOL/ESL Classes (3)
EDUC 311 TESOL/ESL Methods and Assessment (3)

Three credits from the following:

- EDUC 330 Instructional Design I (3)
- EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)

- EDUC 346 Sociocultural Perspectives on Education (3)
- EDUC 401 Seminar in TESOL/ESL (2)
- EDUC 402 TESOL/ESL Internship (1)

TESOL/ESL Minor (18 credits)

Requirements for Education with Certification in Grades 4-8 majors.

Three credits from the following:

- HDFS 383 Topics in Multicultural Families (3)
- HDFS 386 Family Ethnicity and Human Services (3)
- SOAN 356 Social Inequality (3)

- EDUC 208 Teaching English Language Learners in K-12 (3)
- EDUC 309 English Language Learning in TESOL/ESL classes (3)
- EDUC 311] TESOL/ESL Methods and Assessment (3)

Three credits from the following:

- [EDUC 330 Instructional Design I (3)
- [EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)

- EDUC 401 Seminar in TESOL/ESL (2)
- EDUC 402 TESOL/ESL Internship (1)

TESOL/ESL Minor (18 credits)

Requirements non-teaching certification majors.

Three credits from the following:

- EDUC 208 Teaching English Language Learners in K-12 (3)
- ENGL 230 Linguistics (3)

Three credits from the following:

- EDUC 346 Sociocultural Perspectives on Education (3)
- HDFS 383 Topics in Multicultural Families (3)
- HDFS 386 Family Ethnicity and Human Services (3)
- SOAN 356 Social Inequality (3)
- EDUC 309 English Language Learning in TESOL/ESL classes (3)
- EDUC 311 TESOL/ESL Methods and Assessment (3)
- EDUC 331 Instructional Design (prerequisite waived) (3)
- EDUC 401 Seminar in TESOL/ESL (2)
- EDUC 402 TESOL/ESL Internship (1)

HUMAN DEVELOPMENT and FAMILY SCIENCE

Department Chair: Raeann R. Hamon
Administrative Assistant: Deborah Chopka
Professors: R. Hamon, J. R. Reyes, E. Boyd-Soisson
Assistant Professor: P. Johns

Majors and Minors

The Department of Human Development and Family Science offers the following majors:

- Family and Consumer Sciences Education with K-12 Teaching Certification (B.S.)
- Human Development and Family Science (B.A.)
- Child and Family Services (B.A.) - For TEACH students only

The Department of Human Development and Family Science offers the following minors:

- Children and Youth Services
- Disability and Family Wellness
- Gender Studies (see Interdisciplinary programs)
- Gerontology
- Human Development and Family Science
- Multicultural Families
- Pre-Counseling and Therapy (see Interdisciplinary programs)

Human Development and Family Science Major

The Human Development and Family Science Major focuses on the development of the individual in the context of family and society with particular attention to interpersonal interaction. Key content areas include human development (child development through aging), sexuality, interpersonal relationships, courtship and marriage, parenting, internal dynamics of families, ethics, family diversity, family resource management, family services, and family life education. In addition, courses in methods of social research, statistics, community services, and family intervention provide the knowledge and skills necessary to either seek employment immediately following graduation or to continue study in graduate school.

Human development and family science majors focus on the study of relationships, particularly those within families. HDFS students adopt a family systems understanding (one affects the whole), a family strengths philosophy (as opposed to pathology, deviance, and anomaly), and lifespan and ecosystems perspectives (individual and family life cycle). HDFS is an application-based discipline which emphasizes practical skill development via internships, service-learning, and other forms of experiential education. Human development and family science students learn a variety of professional skills including, but not limited to, child observation, listening, interviewing, genogram construction, agency analysis, family life education assessment and program development, as well as conducting and writing literature reviews and research reports. While HDFS prepares students for intervention jobs which help individuals and families deal with crises and hardships after things happen, a major thrust of HDFS is prevention. Thus, throughout the curriculum, students learn how to provide information and skills to individuals and families during critical transitions across the life cycle so that they can avoid crises and the need for intervention.

Human development and family science majors may choose from a wide range of minors within the department such as children and youth services, disability and family wellness, gerontology, multicultural families, and pre-counseling and therapy, or minors outside the department such as Bible, business, communication, early childhood education, music, criminal justice, foods and nutrition, and Christian ministries. Students are encouraged to participate in off-campus practica or internships and will find opportunities for professionally supervised participation in family agencies, community mental health centers, adoption and foster care agencies, retirement facilities, hospitals, prisons, crisis pregnancy centers, schools, drug and alcohol rehabilitation facilities, and other service agencies in the area.

Career Opportunities

Students graduating with a major in human development and family science who do not go on to graduate school typically seek employment as youth services workers, program directors, family life educators, child life specialists, foster care or adoption case managers, activities therapists, residential counselors, family services coordinators, family preservation workers, crisis intervention specialists, parent mentors, therapeutic support specialists, preschool teachers, and counselors in public and private agencies dealing with family issues. For more career information, visit http://www.messiah.edu/info/20406/our_alumni.

With careful planning, graduates of the Human Development and Family Science Major, can meet all the standards and criteria needed for the Provisional Certified Family Life Educator (CFLE) designation from the National Council on Family Relations, the premier professional organization for family scientists and practitioners. Professionals certified as Family Life Educators are nationally recognized as having knowledge and skills in each of the ten family life substance areas (e.g., ethics, internal dynamics of families, family life education methodology). See www.ncfr.org/cfle-certification.

Human Development and Family Science (B.A.) (51 credits)

- HDFS 101 Foundations of Marriage and Family (3)
- HDFS 142 Introduction to Interpersonal Relations (3)
- HDFS 210/PSYC 210 Child Development (3)
- HDFS 244 Human Sexuality (3)
- HDFS 253 Community Services for Individuals and Families (3)
- HDFS 272/PSYC 272 Introduction to Social Research (3)
- HDFS 311/PSYC 311 Adolescent Development (3)
- HDFS 312/PSYC 312 Adult Development (3)
- HDFS 339 Dynamics of Family Interaction (3)
- HDFS 345 Parenting (3)
- HDFS 355 Marital Relationships (3)

Three credits from the following:

- HDFS 383 Topics in Multicultural Family Studies (3)
- HDFS 386 Family Ethnicity and Human Services (3)
- HDFS 442 Strategies of Family Life Education (3)
- HDFS 494 Human Development and Family Science Seminar (3)
- HDFS xxx Elective (3) *(HDFS 245 or HDFS 391 recommended)

Three credits from the following:

- GERO 231/PSYC 231 Psychology of Aging (3)
 - GERO 232/SOAN 232 Sociology of Aging (3)
 - GERO 251 Biology, Nutrition, and Healthy Aging (3)
 - STAT 269 Introductory Statistics (3)
- Strongly recommended for first-year students: HDFS 099 Opportunities in Human Development and Family Science (1)

*Courses required for CFLE, but not required for HDFS major

Family and Consumer Sciences Education Major

The Family and Consumer Sciences (FCS) Education program, approved in November of 2003 by the Pennsylvania Department of Education, is an excellent preparation for those students who wish to be certified to teach family and consumer sciences in kindergarten through twelfth grade in public or private schools. The FCS education major is also a wonderful educational background for those who desire to pursue advanced education and become a school guidance counselor, since many schools prefer those with teaching experience for this role.

Crafted to meet the revised academic standards for family and consumer sciences education, the FCS major is a collaborative program which incorporates course work from a variety of disciplines across campus, including human development and family science; nutrition and dietetics; early childhood education; and education. The curriculum includes at least four public school (e.g. urban and suburban, middle and high school) and early learning center practicum/student teaching experiences throughout the four-year program.

Graduates of the Family and Consumer Sciences Education major, with careful planning, can meet all the standards and criteria needed for the Provisional Certified Family Life Educator (CFLE) designation from the National Council on Family Relations, the premier professional organization for family scientists and practitioners. Professionals certified as Family Life Educators are nationally recognized as having knowledge and skills in each of the ten family life substance areas (e.g., internal dynamics of families, parenting, interpersonal relationships, human sexuality, family resource management). See www.ncfr.org/cfle-certification.

There is a national shortage of FCS teachers, so job prospects are excellent. According to the Pennsylvania Association of Family and Consumer Sciences, FCS professionals “develop, integrate, and provide practical knowledge about the things of everyday life—human growth and development; personal behavior; housing and environment; food and nutrition; apparel and textiles; and resource management—that every individual needs every day to make sound decisions which contribute to a healthy, productive, and more fulfilling life” (<http://www.pafcs.org/pafcswhatis.htm>). In short, family and consumer sciences teachers enhance individual, family, and community well-being through the work that they do.

Family and Consumer Sciences Education with K-12 Teaching Certification (B.S.) (98 credits)

- HDFS 101 Foundations of Marriage and Family (3)
- HDFS 210/PSYC 210 Child Development (3)
- HDFS 244 Human Sexuality (3)
- HDFS 245 Family Resource Management (3)
- HDFS 253 Community Services for Individuals and Families (3)
- HDFS 272/PSYC 272 Introduction to Social Research (3)
- HDFS 307 Family & Consumer Sciences Curric. & Instruc. I (2)
- HDFS 311/PSYC 311 Adolescent Development (3)
- HDFS 312/PSYC 312 Adult Development (3)
- HDFS 339 Dynamics of Family Interaction (3)
- HDFS 345 Parenting (3)
- HDFS 355 Marital Relationships (3)

Three credits from the following:

- HDFS 383 Topics in Multicultural Family Studies (3)
- HDFS 384/SOAN 384 Families in America (3)
- HDFS 386 Family Ethnicity and Human Services (3)

HDFS 494 Human Development and Family Science Seminar (3)
 ART 334 Wearable Art (3)
 CIS 171 Problem Solving with Computers (3)
 COMM 105 Fundamentals of Oral Communication (3)
 EDSP 207 Introduction to Special Education (3)
 EDSP 307 Inclusion Practices (3)
 EDUC 201 Education and American Society (3)
 EDUC 203 Educational Psychology (3)
 EDUC 208 Teaching English Language Learners in K-12 Schools
 EDUC 325 Preschool Field Experience (0)
 EDUC 331 Instructional Design & Assessment for Middle &
 Secondary Grades (3)
 EDUC 415 Evidence Based Practices in Early Childhood Educ. (3)
 ENGL 122-176 Literature meeting QuEST (3)
 NUTR 110 Science and Nutrition (3)
 NUTR 121 Food and Food Science (3)
 NUTR 331 Advanced Food Science and Technology (3)
 STAT 269 Introductory Statistics (3)
 TEP 210 Sophomore Field Experience (0)
 TEP 310 Junior Field Experience (0)

Professional Semester:

EDUC 420 Professional Issues in Education (2)
 HDFS 407 Family and Consumer Sciences Curriculum and
 Instruction II (1)
 TEP 410 Secondary Pre-Student Teaching Experience (0)
 TEP 435 Student Teaching: Secondary (9)

Child and Family Services (B.A.) (63 credits)

HDFS 101 Foundations of Marriage and Family (3)
 HDFS 142 Introduction to Interpersonal Relationships (3)
 HDFS 210/PSYC 210 Child Development (3)
 HDFS 244 Human Sexuality (3)
 HDFS 245 Family Resource Management (3)
 HDFS 253 Community Services for Individuals and Families (3)
 HDFS 311/PSYC 311 Adolescent Development (3)
 HDFS 339 Dynamics of Family Intervention (3)
 HDFS 345 Parenting (3)
 HDFS 355 Marital Relationships (3)

Three credits from the following:

HDFS 340 Ethics and Families (3)
 HDFS 383 Topics in Multicultural Family Studies (3)
 HDFS 386 Family Ethnicity and Human Services (3)
 HDFS 396/EDSP 396 Infants, Toddlers, and Families (3)
 HDFS 494 Human Development and Family Science Seminar (3)
 EDUC 414 Developmental Programming: Early Childhood (3)
 EDUC 415 Evidence-based Practices in ECE (3)
 EDUC 465 Early Childhood Internship (0)
 Early Childhood Electives (18)

Minors

Children and Youth Services Minor (18 credits)

HDFS 101 Foundations of Marriage and Family (3)
 HDFS 210/PSYC 210 Child Development (3)
 HDFS 311/PSYC 311 Adolescent Development (3)
 HDFS 345 Parenting (3)

Six credits from the following (HDFS majors must take 12 credits due to the overlap in the major with HDFS 210 and 311. Elective choices may not overlap with HDFS major requirements.):

CHRM 235 Ministry with Youth I (3)
 CRIJ 309 Juvenile Delinquency (3)*
 EDUC 226 Children's Literature (3)
 HDFS 142 Introduction to Interpersonal Relations (3)

HDFS 218/GERO 218 Death, Grief, and Caring (3)
 HDFS 253 Community Services for Individuals & Families (3)
 HDFS 272/PSYC 272 Introduction to Social Research (3)
 HDFS 339 Dynamics of Family Interaction (3)
 HDFS 320 Play and Development (3)
 HDFS 361 Introduction to Child Life (2) **and**
 HDFS 362 Child Life Field Experience (1)
 HDFS 382 Topics in Human Development and Family
 Science (3)**
 HDFS 391 Family Service Practicum (3)
 HDFS 396/EDSP 396 Infants, Toddlers, and Families (3)
 HDFS 491 Independent Study (3)
 INTE 391 or 394 Internship (3) or a discipline-specific field
 experience completed with children and/or youth
 population (e.g. CHRM 391, PSYC 392, SOWK 390,
 NURS 313).
 PSYC 382 Topics in Psychology (3)**
 SOAN 382 Topics in Sociology and Anthropology (3)**
 SOWK 382 Topics in Social Work (3)**
 THEA 261 Theatre for Young Audiences (3)

*Requires prerequisite(s), may increase the total credits required.

**Departmental Topics and other possible courses must be approved by the Chair of the Department of Human Development and Family Science

Disability and Family Wellness Minor (18 credits)

HDFS 101 Foundations of Marriage and Family (3)
 HDFS 253 Community Services for Individuals and Families (3)
 EDSP 207 Introduction to Special Education (3)
 EDSP 303/IDPL 303 Disability and Society (3)

Three credits from the following:

HDFS 209/PSYC 209 Life Span Development (3)
 HDFS 210/PSYC 210 Child Development (3)
 HDFS 311/PSYC 311 Adolescent Development (3)
 HDFS 396/EDSP 396 Infants, Toddlers, and Families (3)
 GERO 231/PSYC 231 Psychology of Aging (3)
 GERO 232/SOAN 232 Sociology of Aging (3)
 GERO 251 Biology, Nutrition and Healthy Aging (3)

Three credits from the following:

EDSP 307 Inclusion Practices (3)*
 HDFS 218/GERO 218 Death, Grief and Caring (3)
 HDFS 320 Play and Development (3)
 HDFS 339 Dynamics of Family Interaction (3)
 HDFS 361 Introduction to Child Life (2) **and**
 HDFS 362 Child Life Field Experience (1)
 HPED 332 Teaching Adapted Physical Education (1)
 INTE 391 Internship (3)

*Requires prerequisite(s), may increase the total credits required.

Gerontology Minor (18-19 credits)

GERO 218/HDFS 218 Death, Grief and Caring (3)
 GERO 231/PSYC 231 Psychology of Aging (3)
 GERO 232/SOAN 232 Sociology of Aging (3)
 GERO 251 Biology, Nutrition, and Healthy Aging (3)

One of the following:

a. GERO 391 Aging Practicum (3, 3) (two separate practica of three credits each or an internship of six credits) **OR** a Department-Specific Discipline Course (listed below) for a total of six credits
 b. GERO 391 Aging Practicum (3) **OR** three credits of a Department-Specific Discipline Course (listed below) **AND** HDFS 312/PSYC 312 Adult Development (3)
 (Must be completed with older adult populations.)

ADED 485 Internship (3)
APHS 391 Applied Health Science Practicum (3)
CHRM 391 Practicum (3)
NURS 311 Nursing Care of Adults/Older Adults I (4)*
NURS 312 Nursing Care of Adults/Older Adults II (4)*
PSYC 391 Psychology Practicum (3)
SOAN 391 Sociology and Anthropology Practicum (3)
SOWK 490 Field Practice in Social Work (3)

*Requires prerequisite(s), may increase the total credits required.

Human Development and Family Science Minor (18 credits)

HDFS 101 Foundations of Marriage and Family (3)
HDFS 244 Human Sexuality (3)
HDFS 339 Dynamics of Family Interaction (3)
HDFS 355 Marital Relationships (3)

Three credits from the following:

HDFS 340 Ethics and Families (3)
HDFS 345 Parenting (3) (preferred)
HDFS 386 Family Ethnicity and Human Services (3)

Three credits from the following:

GERO 231/PSYC 231 Psychology of Aging (3)
GERO 232/SOAN 232 Sociology of Aging (3)
HDFS 209/PSYC 209 Life Span Development (3)
HDFS 210/PSYC 210 Child Development (3)
HDFS 311/PSYC 311 Adolescent Development (3)
HDFS 312/PSYC 312 Adult Development (3)

Multicultural Families Minor (18 credits)

HDFS 101 Foundations of Marriage and Family (3)
HDFS 383 Topics in Multicultural Family Studies (3)
HDFS 386 Family Ethnicity and Human Services (3)

Three credits from the following:

HDFS 253 Community Services for Individuals & Families (3)
POLI 356 Ethnic and Racial Politics in America (3)
SOAN 335 Social Conflict, Justice and Peacemaking (3)
SOAN 356 Social Inequality (3)
THEO 225 Practical Theology of the Urban Church (3)*

Three credits from the following:

GERO 391 Aging Practicum (3)**
HDFS 391 Family Service Practicum (3)**
INTE 391 Internship (3)**

Three credits from the following:

HDFS/SOAN 384 Families in America (3)
HIST 352 African American History Since 1865 (3)
HIST 353 Immigrant America (3)
HIST 372 Modern Civilization of Asia (3)
IDCC 260 Cross Cultural (3)*
SOAN 221 Native American Cultures (3)
SPAN 302 Culture and Identity in Latin America (3)*
SPAN 306 Contemporary Mexico (3)*
THEO 207 African American Theology (3) *
THEO 223 Global Christian Theology (3) *

*Requires prerequisite(s), may increase the total credits required.

**These courses must be taken for a letter grade; internship must involve diverse populations.

Students are encouraged to study abroad for a semester, where there is the possibility of taking courses from some or all elective categories. Contact the department chair for a list of appropriate options.

PSYCHOLOGY

Department Chair: John I. Bechtold
Administrative Assistant: Donna Zack
Professors: J. Bechtold, H. Danso, R. Jacobsen,
C. Jantzi
Associate Professors: J. Thomson, V. Lemmon
Senior Lecturer: D. Brockman

Majors and Minors

The Department of Psychology offers the following majors:

Biopsychology (B.S.) (see Interdisciplinary Majors and Minors)
Biopsychology (B.S.)/MSOT in Occupational Therapy - Thomas
Jefferson University (see Interdisciplinary Majors and
Minors)
Psychology (B.A.) with optional concentration in Clinical
Psychology (B.S.)

The Department of Psychology offers the following minors:

Pre-counseling and Therapy (Details in Interdisciplinary section)
Psychology

Psychology

Each of the degrees in Psychology help students develop a more sophisticated understanding of the person. Psychology students will examine such mental phenomena as consciousness, perception, learning, memory, intelligence, interpersonal relations, motivation, and development in childhood, adolescence, and adulthood.

Students who want more flexibility in their degree may choose to pursue a B.A. degree. Students who wish to earn a degree that is more directly related to science may choose to pursue a B.S. degree. Students who may wish to become counselors or seek an entry-level position in counseling-related field may choose to pursue the B.A. with a clinical concentration. Some graduate schools prefer applicants who have a B.S. degree while other schools do not have a preference between the B.A. or the B.S. Students are encouraged to talk with their advisor at Messiah so that he or she can help them make the best decision about which degree to choose.

The Department of Psychology offers both clinically oriented courses such as personality, counseling theories, psychological testing, and counseling techniques, and experimentally oriented courses such as biological basis of behavior, sensation and perception, cognition, and social psychology. In addition, courses in statistics, methods of social research, and experimental psychology provide students with the experiences and knowledge necessary to either continue their study in graduate school or seek employment immediately following graduation.

Psychology Majors can choose from a variety of minors such as Bible, business, communication, early childhood education, Christian ministries, gerontology, human development and family science, sociology, criminal justice, or anthropology. Students in our majors are encouraged to spend a semester studying abroad and/or participate in a practicum or internship off campus. Opportunities are available for professionally supervised participation in community mental health centers, retirement facilities, hospitals, prisons, crisis intervention centers, drug and alcohol rehabilitation facilities, and other service agencies in the area.

Psychology (B.A.) (47 credits)
BIOL 258 Human Biology (4)
PSYC 099 Writing for Psychology (1)
PSYC 101 Introduction to Psychology (3)
PSYC 209/HDFS 209 Life Span Development (3)
PSYC 226/SOAN 226 Social Psychology (3)
PSYC 271 Statistical Methods in Psychology (3)
PSYC 272/HDFS 272 Introduction to Social Research (3)

Three credits from the following:

PSYC 204 Cognition (3)
PSYC 350 Biological Basis of Behavior (3)

Three credits from the following:

PSYC 319 Abnormal Psychology (3)
PSYC 323 Counseling Theories (3)
PSYC 324 Personality (3)

Three credits from the following:

PSYC 408 Experimental Psychology (3)
PSYC 409 Psychological Testing (3)

PSYC 441 History and Systems of Psychology (3)

PSYC 494 Psychology Seminar (3)

Twelve credits from PSYC Electives (12)*

*Requires prerequisite(s), may increase the total credits required.

Psychology with Clinical Concentration (B.A.) (47 credits)

BIOL 258 Human Biology (4)
PSYC 099 Writing for Psychology (1)
PSYC 101 Introduction to Psychology (3)
PSYC 209/HDFS 209 Life Span Development (3)
PSYC 226/SOAN 226 Social Psychology (3)
PSYC 271 Statistical Methods in Psychology (3)
PSYC 272/HDFS 272 Introduction to Social Research (3)

Three credits from the following:

PSYC 204 Cognition (3)
PSYC 350 Biological Basis of Behavior (3)

Three credits from the following:

PSYC 408 Experimental Psychology (3)
PSYC 409 Psychological Testing (3)

PSYC 441 History and Systems of Psychology (3)

PSYC 494 Psychology Seminar (3)

Three credits from the following:

INTE 391 Internship (3)
PSYC 391 Psychology Practicum (3)

Clinical Concentration (12 credits)

PSYC 241 Group Dynamics (3)
PSYC 319 Abnormal Psychology (3)
PSYC 323 Counseling Theories (3)
PSYC 423 Counseling Skills (3)

Psychology (B.S.) (47 credits)

BIOL 258 Human Biology (4)
PSYC 099 Writing for Psychology (1)
PSYC 101 Introduction to Psychology (3)
PSYC 204 Cognition (3)
PSYC 209/HDFS 209 Life Span Development (3)
PSYC 226/SOAN 226 Social Psychology (3)
PSYC 271 Statistical Methods in Psychology (3)
PSYC 272/HDFS 272 Introduction to Social Research (3)

Three credits from the following:

PSYC 319 Abnormal Psychology (3)
PSYC 323 Counseling Theories (3)
PSYC 324 Personality (3)

PSYC 350 Biological Basis of Behavior (3)

PSYC 351 Sensation and Perception (3)

PSYC 408 Experimental Psychology (3)
PSYC 441 History and Systems of Psychology (3)
PSYC 494 Psychology Seminar (3)
PSYC xxx Psychology Electives (6)

Minors

Psychology Minor (18 credits)

PSYC 101 Introduction to Psychology (3)

Three credits from the following:

PSYC 204 Cognition (3)
PSYC 226/SOAN 226 Social Psychology (3)
PSYC 350 Biological Basis of Behavior* (3)
PSYC 351 Sensation and Perception* (3)

Three credits from the following:

PSYC 209/HDFS 209 Life Span Development (3)
PSYC 210/HDFS 210 Child Development (3)
PSYC 311/HDFS 311 Adolescent Development (3)
PSYC 312/HDFS 312 Adult Development (3)

Nine credits of PSYC electives*

*Requires prerequisite(s), may increase the total credits required.

SOCIAL WORK

Department Chair/Professor:	Charles R. Seitz, Jr.
Administrative Assistant:	Donna Zack
Associate Professor (Clinical Track) & Field Placement Coordinator:	Michelle D. George
Assistant Professor:	Charlene Lane

The Social Work major focuses on developing the skills and competencies to become a professional social worker. The major is intentional about providing a balance of classroom learning with field experience so that graduates will be prepared to work in a wide range of human service agencies or to attend graduate school.

Students who graduate from the social work major will have over 600 hours of field experience with multiple agencies. Social workers are professionals who provide skilled services in fields such as mental health, medical social work, schools, gerontology, family counseling, foster care, adoptions, child welfare, and criminal justice. Additionally, graduates are prepared to work effectively in both public and private organizations.

While in the program students learn the knowledge and skills necessary to effectively engage, assess, intervene and evaluate individuals, families, organizations and communities. Students develop the competencies to address social and economic justice issues, engage in research informed practice, understand human behavior within an environmental context, practice cultural competency, and to think critically and ethically.

The social work program at Messiah College is accredited by the Council on Social Work Education (CSWE) and graduates are eligible to apply for advanced standing in many graduate schools of social work in the United States, thereby reducing the number of credits required for the Master's in Social Work degree. Social work graduates are eligible for licensing or certification in states which license bachelor's level social workers, including Pennsylvania and many surrounding states.

Progression criteria and GPA requirements for the Social Work Major

Students may progress in the major if they meet the following criteria:

- Earn at least a 2.5 cumulative GPA.
- Earn at least a 2.7 major GPA.
- Earn a 2.3 grade minimum in each SOWK prefixed course.
- Meet ethical and professional requirements outlined in the Application.

Students may conditionally progress in the major if they meet at least two of the four requirements above. Students achieving conditional status must develop a plan in consultation with their advisor to earn admission status and will have their application reviewed in six months to evaluate change in status.

Students not eligible to progress in the major may repeat applicable SOWK courses one time. They may reapply to progress in the major the next semester, as long as their GPA is above 2.0.

For students progressing in the major, each student has an evaluation at the conclusion of every social work course each semester. If the student does not meet the competency, they must meet with their advisor to create a plan to achieve the competency.

To graduate, Social Work majors must earn a 2.5 cumulative GPA, a 2.7 (B-) major GPA, and a 2.3 (C+) requirement for all SOWK designated courses.

Social Work (B.S.W.) (70 credits)

BIOL 258 Human Biology (4)
HIST 142 U.S. History Survey Since 1865 (3)
PSYC 101 Introduction to Psychology (3)
SOAN 101 Introduction to Sociology (3)
SOWK 099 Professionalism in Social Work (1)
SOWK 120 Introduction to Social Work (3)
SOWK 221 Human Behavior in the Social Environment (3)
SOWK 250 Social Work Practice with Individuals (3)
SOWK 251 Field Experience: Social Work Practice: Individuals (1)
SOWK 356 Engaging Diversity and Inequality (3)
SOWK 360 Social Work Practice: Families (3)
SOWK 361 Field Experience: Social Work Practice: Families (1)
SOWK 372 Social Work Practice with Groups (4)
SOWK 382 Topics in Social Work (3)
SOWK 385 Introduction to Research in Social Work (3)
SOWK 420 Social Welfare Policy and Social Change (3)
SOWK 475 Social Work Practice with Communities & Org. (3)
SOWK 476 Field Experience: Social Work Practice with
Communities and Organizations (1)
SOWK 484 Preparation for Field Practice (1)
SOWK 485 Seminar in Social Work Practice (3)
SOWK 490 Field Practice in Social Work (12)
STAT 269 Introductory Statistics (3)

Three credits from the following:

- ECON 110 Economics of Social Issues (3)
- ECON 117 Issues in Environmental Economics (3)
- ECON 120 Principles of Macroeconomics (3)

Human Services (B.A.)

Enrollment in the Human Services major is only open to Social Work majors and who: a) have senior status and b) have been recommended and approved by the Department of Social Work chair. This major cannot be student initiated. Departmental recommendation for this major is only granted when the student is not granted approval for enrollment in a field-based experience in the senior year and/or it has been determined that the student cannot successfully complete the roles and responsibilities of the social work student during his or her fourth year. If a student is determined to not meet Social Work standards during his or her first, second year or third year, the student would be expected to change majors.

Human Services Minor (18 credits)

SOWK 120 Introduction to Social Work (3)
SOWK 221 Human Behavior in Social Environment (3)
SOWK 356 Engaging Diversity and Inequality (3)
SOWK 420 Social Welfare Policy and Social Change (3)

Three credits from the following (Context Cluster):

- SOAN 335 Social Justice, Conflict and Peacemaking (3)
- HDFS 142 Introduction to Interpersonal Relations (3)
- PSYC 241 Group Dynamics (3)
- PSYC 323 Counseling Theories* (3)

Three credits from the following (Experiential Cluster):

- HDFS, PSYC, CRIJ or SOAN practicum (3)

SOCIOLOGY, ANTHROPOLOGY and CRIMINAL JUSTICE

Department Chair: Malcolm Gold
Administrative Assistant: Deana Baddorf
Professor: J. Paris
Associate Professor: M. Gold

Majors and Minors

The Department of Sociology, Anthropology and Criminal Justice offers the following majors:

- Criminal Justice (B.A.)
- Sociology and Anthropology (B.A.)
- Sustainability Studies (B.A.) (see Interdisciplinary Majors and Minors) with a concentration in Community and Urban Development

The Department of Sociology, Anthropology, and Criminal Justice offers the following minors:

- Criminal Justice
 - Gender Studies (see Interdisciplinary Majors and Minors)
 - Sociology and Anthropology
 - Urban Studies (see Interdisciplinary Majors and Minors)
-

Criminal Justice Program

The Criminal Justice program prepares students for service and/or graduate study in a diversity of criminal justice and related fields. Through its commitment to professional criminal justice values and ethics, students will prepare for responsible citizenship, understand the interdisciplinary nature of the field, and develop a comprehensive understanding of crime and the criminal justice system. A Christian world view is integrated into the program through an emphasis on a Restorative Justice perspective. The program incorporates a professional orientation with a strong liberal arts foundation and an analytical and conceptual framework.

The criminal justice major prepares students for entry-level positions in the field, including the areas of judicial services, law enforcement, adult and juvenile probation, adult and juvenile correctional institutions, adult and juvenile parole supervision, victim assistance programs and community-based rehabilitation agencies.

Criminal Justice (B.A.) (48 credits)

- CRIJ 101 Introduction to Criminal Justice (3)
- CRIJ 201 Introduction to Law Enforcement (3)
- CRIJ 259 Criminal Law and Court Procedures (3)
- CRIJ 282 Restorative Justice (3)
- CRIJ 307 Comparative Criminal Justice Systems (3)
- CRIJ 309 Juvenile Delinquency (3)
- CRIJ 348 Ethics in the Criminal Justice System (3)
- CRIJ 362 Criminology (3)
- CRIJ 366 Corrections: Incarceration, Probation, Parole (3)
- CRIJ 452 Criminal Justice Seminar (3)
- INTE 391 Internship (3)

Three credits from the following:

- PSYC 101 Introduction to Psychology (3)
- SOAN 101 Introduction to Sociology (3)
- SOAN 212 Cultural Anthropology (3)
- SOAN 271 Quantitative Research Methods and Statistics (3)
- SOAN 281 Qualitative Research Methods (3)

Six credits from the following:

- BIBL 291 War, Peace and Justice in the Bible (3)
- CRIJ 367 Victimology (3)
- CRIJ 382 Topics in Criminal Justice (3)
- PSYC 365 Drug and Alcohol Addiction (3)
- SOAN 335 Conflict, Justice and Peacemaking (3)
- SOAN 356 Social Inequality (3)

Criminal Justice Minor (18 credits)

- CRIJ 101 Introduction to Criminal Justice (3)
- CRIJ 201 Introduction to Law Enforcement (3)
- CRIJ 362 Criminology (3)

Choose nine credits from the following:

- CRIJ 259 Criminal Law and Court Procedures (3)
 - CRIJ 309 Juvenile Delinquency (3)
 - CRIJ 366 Corrections: Incarceration, Probation, Parole (3)
 - CRIJ 367 Victimology (3)
 - CRIJ 382 Topics in Criminal Justice (3)
 - CRIJ 458 Ethics in the Criminal Justice System (3)
-

Ethnic and Area Studies, Sustainability, Gender Studies and Urban Studies

The disciplines of sociology and anthropology contribute in significant ways to several interdisciplinary majors and minors including Ethnic and Area Studies, Sustainability, Gender Studies and Urban Studies. These programs are described in detail in the Interdisciplinary Majors and Minors section of the *College Catalog*.

Sociology and Anthropology

Messiah's Sociology and Anthropology (SOAN) program is at the forefront of comparable Christian college programs. It exceeds the traditional "sociology only" model by including anthropology and criminal justice, offering students more broad, global, and real-world opportunities. Our program fulfills the American Sociological Association's recommendations for undergraduate education.

The SOAN major and minor attract "people people." SOAN students improve life for others, promote social justice, and cross cultural boundaries in service of humanity. They are adaptive, lifelong learners who thrive in a fast-changing world.

SOAN promotes both a scholarly and real-world approach to the social sciences. SOAN seniors write a thesis based on original research, and earn ethics certification from the National Institutes of Health. Students gain real-world experience through study abroad, internships, and service-learning. The SOAN major is efficient and flexible, designed for double majors, minors, and studying abroad.

A recent alumni survey shows SOAN graduates working in the for-profit sector (31%), non-profit and ministry (12%), law (13%), education (12%), and human services (22%). Many develop successful careers with a B.A., before working toward a master's or doctorate.

Sociology and Anthropology (B.A.) (36 credits)

- SOAN 101 Introduction to Sociology (3)
 - SOAN 212 Cultural Anthropology (3)
 - SOAN 271 Quantitative Research Methods and Statistics (3)
 - SOAN 281 Qualitative Research Methods (3)
 - SOAN 331 Sociocultural Theory (3)
 - SOAN 335 Social Conflict, Justice and Peacemaking (3)
 - SOAN 356 Social Inequality (3)
-

SOAN 442 Senior Thesis (3)

Twelve credits from the following:

ENGL 230 Linguistics (3)

INTE 391 Internship (1-3)

PSYC 365 Drug and Alcohol Addiction (3)

SOAN 315 Urban Sociology (3)

SOAN 221 Native American Cultures (3)

SOAN 226/PSYC 226 Social Psychology (3)

SOAN 232/GERO 232 Sociology of Aging (3)

SOAN 305 Harrisburg Neighborhoods (3)

SOAN 334 Population and Environmental Issues (3)

SOAN 341 Religion and Society (3)

SOAN 342/HDFS 342/PSYC 342 Women and Men in American Society (3)

SOAN 381 Topics in Non-Western Cultures (3)

SOAN 382 Topics in Sociology and Anthropology (3)

SOAN 384/HDFS 384 Families in America (3)

SOAN 391 Sociology and Anthropology Practicum (1-3)

SOAN 491 Independent Study (1-3)

SOAN 497/498 Major Honors (3,3)

SOWK 420 Social Welfare Policy and Social Change (3)

Note: At least 18 credits used to meet requirements must be 300- or 400- level courses.

Sociology and Anthropology Minor (18 credits)

SOAN 101 Introduction to Sociology (3)

SOAN 212 Cultural Anthropology (3)

SOAN 331 Sociocultural Theory (3)

Three credits from the following:

SOAN 271 Quantitative Research Methods and Statistics (3)

SOAN 281 Qualitative Research Methods (3)

Six additional Sociology or Anthropology credits approved by the minor advisor and taken at Messiah College, or an approved study abroad (6).

TEACHER EDUCATION PROGRAM

Director:	Jennifer L. Fisler
Field Experience Coordinator:	Julie McGill
Field Placement, Internship and Certification Coordinator:	Amanda J. Sigel
Administrative Assistant:	Carol Wickey

The Messiah College Teacher Education Program endorses candidates for Pennsylvania Level I teacher certification in numerous content areas. The mission and themes of all certification programs are uniform, and the policies and procedures which govern the Teacher Education Program are the same for all certification areas.

The Department of Education offers the following majors that lead to a B.S. degree and Pennsylvania Instructional I teacher certification:

Education with Teaching Certification in Grades PreK-4 (B.S.)

Education with Dual Teaching Certification in Grades PreK-4 and Special Education Pre-K-8 (B.S.)

Education with Teaching Certification in Grades 4-8 (B.S.)

Additionally, Messiah College offers teacher education programs leading to PA Instructional I Certification in the following areas. For detailed program requirements, see the sponsoring academic department (indicated in parenthesis) for each.

7-12 Programs:

Biology (Biological Science)

Chemistry (Chemistry and Biochemistry)

English (English)

Mathematics (Mathematics, Physics and Statistics)

Physics (Mathematics, Physics and Statistics)

Social Studies (History)

K-12 Programs:

Chinese (Modern Languages)

Family and Consumer Sciences Education (Human Development and Family Science)

French (Modern Languages)

German (Modern Languages)

Health and Physical Education (Health, Nutrition and Exercise Science)

Music (Music)

Art (Visual Arts)

Spanish (Modern Languages)

ESL (Education)

Mission Statement and Program Outcomes. The mission of the Messiah College Teacher Education Program is to develop professional educators who . . .

- **facilitate** the learning and development of others consistently,
- **reflect on thoughts and actions deliberately,**
- **apply essential knowledge effectively,**
- **learn continuously,**
- **care for people compassionately,** and
- **serve God** and society faithfully.

Students who complete the Messiah College Teacher Education Program will demonstrate:

1. Christian faith and values in personal and professional life.
2. Professional attitudes that reflect an understanding of schools and a commitment to teaching.

3. Subject matter depth and an understanding of the relationships between and among curricular areas.
4. Theoretical knowledge of learning and related instructional practices that support learning.
5. Empirical inquiry skills such as observation, hypothesis-testing, data collection, and data analysis.
6. Acquisition, analysis, evaluation, and integration of new knowledge throughout professional practice.
7. Appropriate professional responses to the roles and responsibilities of individuals and organizations (e.g., teachers, students, families, school districts, communities) associated with educational environments.
8. Professional communication (speaking, writing, listening) and technology skills.
9. Reflective decision-making and problem-solving skills.
10. Instructional planning and assessment skills that facilitate equitable participation, an accepting and supportive learning environment, and maximum development for all learners.

To support our mission and to meet professional development standards, the following themes are integrated throughout all of the teacher preparation programs:

1. **Assessment:** Collecting valid and reliable data to inform instruction and decision-making processes.
2. **Technology and Information Literacy:** Applying a wide variety of instructional technologies and information resources to enhance instructional decision-making and effectiveness.
3. **Inclusion:** Creating and maintaining educational environments that promote learning opportunities for individuals who possess a variety of exceptionalities and disabilities.
4. **Diversity:** Creating and maintaining educational environments that promote learning opportunities for individuals who represent a variety of racial, ethnic, and cultural backgrounds.
5. **The Christian Teacher:** Demonstrating Christian faith and values in all of the actions, judgments, and interpersonal relationships that are relevant to educational environments.

Field Experiences and Student Teaching. The location of Messiah College affords great opportunity for students to observe and teach in a wide variety of school settings. Within easy drive of the College are numerous suburban, rural, and urban school districts. The Teacher Education Program regularly places students in as many as 30 different school districts each year and enjoys positive, collaborative relationships with these districts. Additionally, students may apply to do part of their student teaching in an international context.

Students are responsible for their own transportation to and from field experience and student teaching sites. No College transportation will be available to students who are enrolled in field-based courses or student teaching. In early courses, the College attempts to place students in schools with carpooling possibilities in mind. For upper level field experiences and student teaching, students are expected to have their own means of transportation.

Policies and Procedures

All students who pursue teacher certification must comply with established policies and procedures that regulate admission to, retention in, and endorsement for certification through the Messiah College Teacher Education Program. A complete copy of the Teacher Education Program Handbook can be found on the program homepage: www.messiah.edu/teacher.

The Teacher Education Program Handbook is the official and most current guide to any program-related information. The following points are highlights of the major handbook-documented guidelines. While these guidelines may be viewed as the most significant items to be considered, they represent only a segment of the complete policies and procedures that govern a student's acceptance into and movement through the Teacher Education Program.

It is the student's responsibility to be fully aware of, and to comply with, all policies, procedures, and expectations required for admission to, retention in, and exit from the Teacher Education Program. Furthermore, students are responsible for following all policies and procedures related to the process of applying for the Pennsylvania Instructional I teaching certificate.

Enrollment in Field Experiences. Students seeking to enroll in field experience courses will need to complete security clearances and a TB test. The three required clearances are the PA Act 34 (criminal check), the PA ACT 33/151 (child abuse check), and a clearance from the FBI. In order to enroll in TEP 210, students must complete these clearances early in the spring of their first year. Clearances must be submitted to the Teacher Education Program Office prior to registration for this course. All of these clearances have fees which are the responsibility of the student applicant. Detailed information on the clearances, including links to forms, is available on the Teacher Education Program website (www.messiah.edu/teacher).

All 300-level or higher EDUC courses must be taken at Messiah College.

Admission to the Teacher Education Program. All eligible students who intend to pursue a teacher preparation program are required to make formal application for admission to the Teacher Education Program by **spring of the sophomore year**. Transfer students should contact the Director of the Teacher Education Program to determine when they should apply. Admissions decisions are made as complete applications are received.

Admission requirements are established by the Teacher Education Committee in compliance with regulations from the Commonwealth of PA and the Messiah College Teacher Education Program. Messiah College reserves the right to deny admission to any applicant determined to be unqualified for participation in the Teacher Education Program. Three major criteria are evaluated for admission to the Teacher Education Program:

1. **GPA/Academic Performance.** Minimum GPA of 3.0 is required for admission. Additionally, students must earn at least a "C-" in the first year seminar (or equivalent course), COMM 105, Fundamentals of Oral Communication (or equivalent course) two college level math courses, and one English literature course. Any course required for the major leading to teacher certification or for the teacher certification program in which a student earns a grade lower than "C-" must be repeated.
2. **Basic Skills Requirement.** Students must submit evidence of having met the Basic Assessment required by Pennsylvania Department of Education. Students can meet this requirement with qualifying scores on the SAT/ACT, the PAPA examination, or the ETS Core Assessment. For admission to TEP, scores must meet the passing level established by the Pennsylvania Department of Education.
3. **Character/Security Clearances.** To comply with regulations established by public school districts and the Commonwealth of Pennsylvania, all applicants to the Teacher Education Program

must secure periodic clearances through PA Act 34 (criminal check), PA Act 33/151 (child abuse check), and a clearance from the FBI. All of these clearances have application fees which are the responsibility of the student applicant. All clearances must be less than one year old at the time of application to the program. Applicants are also screened by the College's Student Life and Academic Offices to ascertain that individuals are considered to be in good standing with each office and are in compliance with campus guidelines for personal behavior and academic integrity.

Students are advised to consult the Teacher Education Program Handbook for more detailed information and/ or contact the Director of the Teacher Education Program with specific questions about admission to the Teacher Education Program.

Retention in the Teacher Education Program. Once admitted, students are considered members in good standing in the Teacher Education Program as long as all of the qualifications and performance standards required for admission to the program are maintained. Students who do not maintain all of the required qualifications and standards will be suspended from the program. Benefits of being admitted and retained in the program include, but are not limited to the following:

Qualification for Continued Study. Students who have been admitted to the Teacher Education Program are eligible for advanced level education courses and field experiences. Students must have approved status to enroll in any 300-level EDUC course or any 300-level field-based certification course, regardless of the prefix of the course.

Notification of Teacher Education Program Meetings and Events. Students who are admitted to the Teacher Education Program will automatically receive information about special meetings, informational sessions, application requirements for the Professional Semester, etc. Because much of this information is conveyed by means of email, students are required to access their campus email accounts regularly.

Admission to the Professional Semester. Students apply for admission to the Professional Semester (student teaching semester) during the junior year. All students are expected to file a formal application for admission to the Professional Semester by January 15 of the academic year prior to the one in which the Professional Semester will occur. Students interested in completing part of their student teaching internationally must submit a separate application which is due at the start of the junior year. To be considered for admission, students must:

- be admitted to the Teacher Education Program (normally occurs during the sophomore year).
- continue to maintain all academic and character standards as stated in the Teacher Education Program handbook and which were required for admission to the Teacher Education Program.
- successfully complete (grade of C- or higher or faculty endorsement, as noted) of the following prerequisite courses:
 - a. TEP 210 Sophomore Field Experience (P/F)
 - b. EDUC 201 Education and American Society
 - c. EDUC 203 Educational Psychology
 - d. Upper Level Field Experiences (300/400 level field experiences required for teacher certification) as reported by course instructor or college supervisor.
- be required and endorsed for enrollment in the Professional Semester by their academic departments (i.e., the departments

in which the academic majors are housed) and faculty in the Professional Core of courses.

Acceptance in the Professional Semester may be revoked if at any time students do not maintain the minimum acceptable level of performance for all admission criteria, including performance in all Professional Semester courses.

Appeals Process. A student may appeal decisions regarding his/her status for Program admission or Professional Semester admission as determined by the Teacher Education Program. Any appeal should be articulated in writing to the Chair of the Teacher Education Committee, clearly stating the nature for the appeal and supporting rationale for consideration of the requested change. Appeals will be processed through the Teacher Education Committee. Decisions regarding the appeals will be relayed to the student verbally and in writing. The decision of the Teacher Education Committee regarding the appeal is final.

Institutional Recommendation for Pennsylvania Teacher Certification (Program Exit Requirements). Students are eligible to be recommended for Pennsylvania Level I Teacher Certification after they have successfully completed all requirements for a Messiah College degree, demonstrated appropriate proficiency in the Professional Semester/student teaching experience, met all required health and character clearances, scored at or above the required level on the mandatory PA exam(s), and have been endorsed for certification by the required offices of the College. Specific details for certification requirements and related processes are outlined in the Teacher Education Program Handbook. Students are expected to read and follow these posted guidelines and procedures. The Teacher Certification Officer will alert students to the timing and procedures for all testing and documentation required for the certification process. However, it is the student's responsibility to meet all requirements and deadlines to ensure that the process is executed successfully. Students who are not United States citizens are urged to consult with the Certification Officer regarding their eligibility for Pennsylvania teacher certification and related procedures and policies.

Post-Baccalaureate Teacher Certification Programs. Opportunities to obtain teacher certification only, without completing a Messiah College degree, are available for those who already possess at least the bachelor's degree from an accredited college or university. Such students must first apply for admission to the College (contact the Certification Office for details) and then, if admitted, an individualized certification program will be developed by the Teacher Certification Officer and the Chair of the Department which houses the major content area in which certification will occur. Admission to the College does not guarantee that the student will be admitted to the Teacher Education Program. Post-Baccalaureate Certification students must follow the same policies, procedures, application, and retention expectations as all other students. Once admitted to the College, such students must be continuously enrolled in Messiah College courses. Where applicable, post-bacc certification students may complete their requirements with a combination of undergraduate and graduate courses.

School of the Humanities

Dean: Peter K. Powers, Ph.D.
Administrative Assistant: Sally Richardson

Identity and Mission Statement

The School of the Humanities is an interdisciplinary intellectual community which analyzes and interprets the creation and transmission of human culture, both ancient and modern. We emphasize critical and creative thinking, communication skills, and the development of Christian perspectives as we engage the pressing aesthetic, philosophical, political, religious, and social issues of our day. Our mission is to educate students and the larger College community by cultivating an informed Christian faith, a maturing cultural literacy, and portable intellectual skills. We develop lifetime learners who demonstrate global awareness, civic engagement, servant leadership, and reconciliation in church and society.

The School of the Humanities consists of seven academic departments, the Ethnic and Area Studies programs, the Peace and Conflict programs, the Writing Center, the Beatrice Howe Language Center, and the Center for Public Humanities. Twenty-four majors and 48 minors/concentrations advance a wide range of educational aspirations among our humanities students. The Center for Public Humanities enriches the School, the College, and the wider regional community by bringing faculty and students together with other educational, cultural, and civic organizations (e.g., schools, libraries, museums, regional societies and state councils, colleges and universities) to pursue collaborative ventures in humanities-based teaching, learning, and public events.

The School of the Humanities includes the following departments:

- Department of Biblical and Religious Studies
- Department of Communication
- Department of English
- Department of History
- Department of Modern Languages
- Department of Philosophy
- Department of Politics and International Relations

BIBLICAL and RELIGIOUS STUDIES

Department Chair: Brian A. Smith
Administrative Assistant: Alisa Sentz
Professors: M. Cosby, S. Gallaher, D. Jacobsen, G. Pickens, E. Powery, S. Putt, E. Seibert, D. Weaver-Zercher
Associate Professors: R. Crane, S. Skinner, B. Smith
Assistant Professors: A. Hart

Majors and Minors

The Department of Biblical and Religious Studies offers the following majors:

Biblical and Religious Studies (B.A.) *with concentrations in:*
Bible
Religion
Theology
World Christianity

Christian Ministries (B.A.) *with concentrations in:*
Congregational Ministries
Cross-Cultural Ministries
Youth Ministries

The Department of Biblical and Religious Studies offers the following minors:

African-American Religion and Culture
Bible
Cross-Cultural Ministries
Theology
Youth Ministries
Congregational Ministries
Religion
World Christianity

Mission

The Department of Biblical and Religious Studies is a community of students and Christian scholars who specialize in biblical studies, religious history, theology, world religions, and Christian ministry. Our goal is to model and encourage informed thinking about Christian faith and practice and the role of religion in the world. We foster spiritual and theological reflection that enables individuals to develop and deepen Christian commitment, interpret matters of faith intelligently, and minister to others with wisdom and compassion.

Biblical and Religious Studies Major

The Biblical and Religious Studies major equips students to interpret biblical texts responsibly and to reflect on religious beliefs and practices. By acquiring tools for biblical interpretation, theological reflection, and religious understanding, students gain insight into their own faith as well as resources for becoming leaders, servants, and reconcilers in church and society. Students choose a concentration in one of four areas: Bible, Religion, Theology, or World Christianity. With its emphasis on the development of reading, writing, and critical-thinking skills, the major prepares students for entry-level positions in a variety of fields, as well as seminary or graduate school. In addition to serving students who pursue this major as their primary field, the Biblical and Religious Studies major serves as an excellent double major for students in other departments who wish to be responsible members of church and society.

The **Bible concentration** focuses on the biblical text, examining the Bible's contents and backgrounds while introducing students to various methods of interpretation. Students in this concentration are encouraged to take Greek and/or Hebrew to meet their QuEST language requirement.

The **Religion concentration** examines a variety of world religions and the ways scholars study them.

The **Theology concentration** emphasizes careful reflection on Christian belief and practice, examining the commonalities and differences that have been evident within the life of the church past and present.

The **World Christianity concentration** introduces students to the dynamics of Christianity as a global faith. Representative forms of Christianity as it exists in the world and Christianity as a missionary religion for the world will be analyzed. Students choosing this concentration are encouraged to spend a semester in a cross-cultural setting.

Biblical and Religious Studies (B.A.) (39 credits)

Core requirements (24 credits)

- BIBL 202 Encountering the Bible (Majors) (3)
- BIBL 233 Old Testament Literature (Majors) (3)
- BIBL 237 New Testament Literature (Majors) (3)
- RELI 206 Religions of the World (Majors) (3)
- RELI 344 History of Christianity (3)
- THEO 205 Introduction to Christian Theology (3)
- THEO 305 Christian Theology of Religious Pluralism (3)
- THEO 487 Biblical and Religious Studies Seminar (3)

One of the following concentrations:

Bible Concentration (15 credits)

- One BIBL course in the 250-293 range (3)
- BIBL 307 Biblical Backgrounds (3)

Three credits from the following:

- BIBL 312 Selected Old Testament Books (3)
- BIBL 313 Selected New Testament Books (3)
- BIBL 381 Biblical Interpretation and Criticism (3)
- BIBL 382 Topics in Biblical Theology (3)

Religion Concentration (15 credits)

Six credits from the following:

- RELI 228 Judaism (3)
- RELI 229 Islam (3)
- RELI 333 Religions of India (3)
- RELI 334 Religions of China and Japan (3)

Three credits from the following:

- RELI 321 Christianity in Latin America (3)
- RELI 329 Christianity in Africa (3)
- RELI 332 Christianity in Asia (3)

Three credits from the following:

- RELI 342 Religious Pluralism in America (3)
- RELI 355 Christianity in North America (3)
- SOAN 341 Religion and Society (3)
- RELI 366 Topics in Religion (3)

Theology Concentration (15 credits)

Three credits from the following:

- RELI 321 Christianity in Latin America (3)
- RELI 329 Christianity in Africa (3)
- RELI 332 Christianity in Asia (3)

THEO 338 Christian Theology III: Peace, Justice and Reconciliation (3)

THEO 343 Contemporary Theology (3)

THEO 354 Theology and Gender (3)

THEO 366 Topics in Theology (3)

World Christianity Concentration (15 credits)

CHRM 220 Introduction to Christian Mission (3)

RELI 321 Christianity in Latin America (3)

RELI 329 Christianity in Africa (3)

RELI 332 Christianity in Asia (3)

RELI 366 Topics in Religion (3)

Christian Ministries Major

The major in Christian Ministries primarily prepares women and men for entry-level positions in congregational and para-church ministries. This program can also serve as a foundation for further education in a seminary setting. With its three concentrations, the major incorporates practical elements, but it also requires the student to acquire competency in biblical and theological reflection, which serve as the theoretical foundations for this course of study. Critical thinking and oral and written communication skills are also stressed.

The **Congregational Ministries concentration** provides the student with a broad course of study focusing on the diverse aspects of congregation-based work.

The **Cross-Cultural Ministries concentration** provides the student with skills and perspectives for intercultural service opportunities and partnerships with congregations world-wide and para-church mission organizations.

The **Youth Ministries concentration** provides the student with general orientation to ministry as well as focused study in the area of youth work.

In addition to meeting the major's curricular requirements, all Christian Ministries majors are required to participate in the Department's Fitness for Ministry program-cocurricular activities and expectations that assess and increase students' fitness to pursue careers in Christian ministry. Program requirements include mandatory participation in spiritual formation groups during the sophomore and senior years, and the development and maintenance of a ministry portfolio that will be reviewed regularly by department faculty members. For more information on the Fitness for Ministry program, visit the Department website.

Christian Ministries (B.A.) (63-66 credits)

Core requirements (34 credits)

BIBL 202 Encountering the Bible (Majors) (3)

BIBL 233 Old Testament Literature for Majors (3)

BIBL 237 New Testament Literature for Majors (3)

Three credits from the following:

- BIBL 312 Selected Old Testament Books (3)
- BIBL 313 Selected New Testament Books (3)
- BIBL 382 Topics in Biblical Theology (3)

CHRM 099 Opportunities in Christian Ministries (1)

CHRM 242 Christian Spirituality (3)

CHRM 338 Teaching for Christian Ministries (3)

CHRM 493 Christian Ministries Seminar (3)

RELI 344 History of Christianity (3)

THEO 238 Christian Theology I: God and Humanity (3)

THEO 239 Christian Theology II: Nature & Mission of Church (3)
THEO 338 Christian Theology III: Peace, Justice, and Reconcil. (3)

One of the following concentrations:

Congregational Ministries Concentration (29 credits)

CHRM 210 Theology of Ministry (3)
CHRM 225 Field Experience in Christian Ministries (2)
CHRM 243 Evangelism and Discipleship (3)
CHRM 323 Worship (3)
CHRM 330 Organization and Leadership for Ministry (3)
CHRM 342 Pastoral Counseling (3)
CHRM 343 Introduction to Preaching (3)
CHRM 351 Topics in Congregational Ministries (3)
CHRM 391 Practicum (3)
RELI 355 Christianity in North America (3)

Cross-Cultural Ministries Concentration (29 credits)

CHRM 220 Introduction to Christian Mission (3)
CHRM 227 Pre-Field Experience Cross-Cultural Ministry (3)
CHRM 320 Biblical Theology of Mission (3)
CHRM 352 Topics in Cross-Cultural Ministries (3)
CHRM 393 Post-Field Experience Cross-Cultural Ministry (2)
COMM 342 Intercultural Communication (3)

Three credits from the following:

RELI 206 Religions of the World for Majors (3)
RELI 228 Judaism (3)
RELI 229 Islam (3)
RELI 333 Religions of India (3)
RELI 334 Religions of China and Japan (3)

Three credits from the following:

RELI 321 Christianity in Latin America (3)
RELI 329 Christianity in Africa (3)
RELI 332 Christianity in Asia (3)
THEO 223 Global Christian Theology (3)
SOAN 212 Cultural Anthropology (3)
THEO 305 Christian Theology of Religious Pluralism (3)

Youth Ministries Concentration (32 credits)

CHRM 210 Theology of Ministry (3)
CHRM 225 Field Experience in Christian Ministries (2)
CHRM 235 Ministry with Youth I (3)
CHRM 330 Organization and Leadership for Ministry (3)
CHRM 336 Ministry with Youth II (3)
CHRM 353 Topics in Youth Ministries (3)
CHRM 391 Practicum (3)
PSYC 311/HDFS 311 Adolescent Development (3)
RELI 355 Christianity in North America (3)

Three credits from the following:

CHRM 243 Evangelism and Discipleship (3)
CHRM 323 Worship (3)
CHRM 342 Pastoral Counseling (3)
CHRM 343 Introduction to Preaching (3)

Three credits from the following:

HDFS 101 Foundations of Marriage and Family (3)
PSYC 101 Introduction to Psychology (3)
PSYC 203 Educational Psychology (3)

Minors

African-American Religion and Culture Minor (18 credits)

ENGL 340 American Literature After 1900 (3)
HIST 352 African-American History since 1865 (3)
THEO 207 African-American* (3)
THEO 487 Biblical and Religious Studies Seminar (3)
Six hours of approved electives. Possible courses include:

RELI 329 Christianity in Africa (3)
EDUC 346 Socio-Cultural Perspectives on Education (3)

*Requires prerequisite(s), may increase the total credits required.

Bible Minor (21 credits)

Three credits from the following:

BIBL 201 Encountering the Bible (3)
BIBL 202 Encountering the Bible for Majors (3)
BIBL 203 Encountering the Old Testament (3)
BIBL 204 Encountering the New Testament (3)

Three credits from the following:

BIBL 231 Old Testament Literature (3)
BIBL 233 Old Testament Literature for Majors (3)

Three credits from the following:

BIBL 235 New Testament Literature (3)
BIBL 237 New Testament Literature for Majors (3)

Three credits from the following:

BIBL 312 Selected Old Testament Books (3)
BIBL 313 Selected New Testament Books (3)

Three credits from the following:

BIBL 307 Biblical Backgrounds (3)
BIBL 381 Biblical Interpretation and Criticism (3)
BIBL 382 Topics in Biblical Theology (3)

Six additional credits of BIBL courses

Congregational Ministries Minor (18 credits)

CHRM 210 Theology of Ministry (3)
Three credits from the following:
BIBL 231 (or 233) Old Testament Literature (3)
BIBL 235 (or 237) New Testament Literature (3)
THEO 238 Christian Theology I: God and Humanity (3)
THEO 239 Christian Theology II (3)

Six credits from the following:

CHRM 323 Worship (3)
CHRM 338 Teaching for Christian Ministries (3)
CHRM 342 Pastoral Counseling (3)
CHRM 343 Introduction to Preaching (3)

Cross-Cultural Ministries Minor (18 credits)

CHRM 220 Introduction to Christian Mission (3)
CHRM 320 Biblical Theology of Mission (3)
CHRM 352 Topics in Cross-Cultural Ministries (3)

Three credits from the following:

RELI 228 Judaism (3)
RELI 229 Islam (3)
RELI 333 Religions of India (3)
RELI 334 Religions of China and Japan (3)

Three credits from the following:

RELI 321 Christianity in Latin America (3)
RELI 329 Christianity in Africa (3)
RELI 332 Christianity in Asia (3)

SOAN 212 Cultural Anthropology (3)

Religion Minor (18 credits)

RELI 205 or 206 Religions of the World (3)

Three credits from the following:

RELI 228 Judaism (3)

RELI 229 Islam (3)

Three credits from the following:

RELI 333 Religions of India (3)

RELI 334 Religions of China and Japan (3)

Three credits from the following:

RELI 342 Religious Pluralism in America (3)

RELI 355 Christianity in North America (3)

RELI 366 Topics in Religion (3)

THEO 305 Christian Theology of Religious Pluralism (3)

Theology Minor (18 credits)

RELI 344 History of Christianity (3)

THEO 205 Introduction to Christian Theology (3)

THEO 305 Christian Theology of Religious Pluralism (3)

THEO 338 Christian Theology III: Peace, Justice, and

Reconciliation (3)

THEO 343 Contemporary Theology (3)

THEO 354 Theology and Gender (3)

World Christianity Minor (18 credits)

CHRM 220 Introduction to Christian Mission (3)

RELI 321 Christianity in Latin America (3)

RELI 329 Christianity in Africa (3)

RELI 332 Christianity in Asia (3)

RELI 344 History of Christianity (3)

THEO 223 Global Christian Theology (3)

Youth Ministries Minor (21 credits)*Three credits from the following:*

BIBL 231 (or 233) Old Testament Literature (3)

BIBL 235 (or 237) New Testament Literature (3)

CHRM 210 Theology of Ministry (3)

CHRM 235 Ministry with Youth I (3)

CHRM 336 Ministry with Youth II (3)

CHRM 353 Topics in Youth Ministries (3)

THEO 238 Christian Theology I: God and Humanity (3)

THEO 239 Christian Theology II: Nature and Mission of the Church (3)

COMMUNICATION

Department Co-Chairs: Nance McCown and Kate Simcox**Administrative Assistant:** Christine Walter**Professor:** T. Allen, E. Arke, K. Phipps, K. Simcox**Associate Professors:** F. Cilento, D. Dixon, N. McCown**Assistant Professors:** A. Eseke, M. Holloway, K. Imbesi, N. Skulstad

Majors and Minors

The Department of Communication offers the following majors:

Broadcasting and Media Production (B.A.)

Communication (B.A.)

Digital Media (B.A.) *Concentration:* Digital Video and Story

(See the Interdisciplinary section for details)

Film and Media Arts (B.A.)

Journalism (B.A.)

Public Relations (B.A.)

The Department of Communication offers the following minors:

Broadcasting and Media Production

Communication

Journalism

Public Relations

Majors

The Department of Communication offers majors in Broadcasting and Media Production, Communication, Digital Media, Film and Media Arts, Journalism, and Public Relations. The Film and Media Arts major is accredited by the National Association of Schools of Art and Design (NASAD). The department also offers minors in Communication, Journalism, Broadcasting, and Public Relations. Career possibilities for graduates include work in the film and media industries, digital and social media, public relations, publications, public speaking, human services, advertising, journalism, broadcasting, advertising, marketing, event planning, human resource management, politics, law and any career which relies significantly on interpersonal, group, media, or organizational skills.

Broadcasting and Media Production (B.A.) (46 credits)

COMM 105 Fundamentals of Oral Communication (3)

COMM 107 Introduction to Communication Seminar (1)

COMM 203 Basic Video and Editing Techniques (3)

COMM 218 Mass Media and Society (3)

COMM 243 Audio/Visual Newsgathering (3)

Three credits from the following:

COMM 241 Small Group Communication (3)

COMM 313 Relational Communication (3)

COMM 342 Intercultural Communication (3)

COMM 354 Interpersonal Conflict (3)

COMM 247 Writing for Mass Media (3)

COMM 324 Television Production (3)

COMM 341 Communication Theory (3)

COMM 365 Media Law and Ethics (3)

COMM 493 Communication Senior Seminar (3)

Nine credits from the following; at least one 300/400 level course:

COMM 112 Newswriting (3)

COMM 207 Communication Design (3)

COMM 317 Advanced Editing and Effects (3)*

COMM 319 Sports Broadcasting (3)

COMM 323 Broadcast Performance and Production (3)

COMM 330 Multimedia Storytelling (3)

COMM 363 Documentary & Promotional Film Product. (3)*
COMM 372 Alternative Approaches to Journalism (3)*
COMM 374 Topics in Media Production (3)*
MUCM 353 Sound Design (3)

Six credits from the following, must be taken for a letter grade. At least three credits must be off campus:

COMM 391 Communication Practicum (1-3)
COMM 392, COMM 492 Student Media Lab (1-3)
INTE 391 Internship (1-3)
INTE 394 Internship (4-12)

*Requires prerequisite(s), may increase the total credits required.

Communication (B.A.) (44-46 credits)

COMM 105 Fundamentals of Oral Communication (3)
COMM 107 Introduction to Communication Seminar (1)

Three credits from the following media courses:

COMM 211 Media in Everyday Life (3)
COMM 218 Mass Media and Society (3)
COMM 282 Topics in Media Studies (3)
COMM 382 History and Theory of Digital Media (3)

Three credits from the following interpersonal communication courses:

COMM 241 Small Group Communication (3)
COMM 313 Relational Communication (3)
COMM 342 Intercultural Communication (3)
COMM 354 Interpersonal Conflict (3)

Three credits from the following major writing courses:

COMM 112 Newswriting (3)
COMM 247 Writing for Mass Media (3)
COMM 254 Screenwriting I (3)
COMM 305 Magazine Writing (3)
COMM 351 Public Relations Writing (3)

COMM 341 Communication Theory (3)

COMM 359 Rhetorical Theory (3)

One to three credits from the following, must be taken for a letter grade. Three credits of INTE 394 count towards the major; additional credits are elective.

COMM 391 Communication Practicum (1-3)
INTE 391 Internship (1-3)
INTE 394 Internship (4-12)

COMM 493 Communication Senior Seminar (3)

21 additional COMM credits (no overlap with other required courses), which may also include:

BUSA 305 Writing for Business (3)
HDFS 272/PSYC 272 Introduction to Social Research (3)

Film and Media Arts (B.A.) (58-61 credits)

COMM 105 Fundamentals of Oral Communication (3)
COMM 107 Introduction to Communication Seminar (1)
COMM 203 Basic Video and Editing Techniques (3)
COMM 217 Introduction to Film (3)

Three credits from the following media courses:

COMM 211 Media in Everyday Life (3)
COMM 218 Mass Media and Society (3)
COMM 282 Topics in Media Studies (3)
COMM 382 History and Theory of Digital Media (3)

Three credits from the following interpersonal communication courses:

COMM 241 Small Group Communication (3)
COMM 313 Relational Communication (3)
COMM 342 Intercultural Communication (3)
COMM 354 Interpersonal Conflict (3)

COMM 220 Film and HD Production I (3)

COMM 251 Film History I: 1895–1960 (3)

COMM 252 Film History II: 1960–Present (3)

COMM 254 Screenwriting I (3)
COMM 317 Advanced Editing and Effects (3)
COMM 320 Film and HD Production II (3)
COMM 328 Methods and Issues in Film Studies (3)
COMM 341 Communication Theory (3)
COMM 420 Junior/Senior Film Project (3)
COMM 493 Communication Senior Seminar (3)

Three to six credits from the following:

INTE 391 Internship (1-3)*
INTE 394 Internship (4-12)*

Six credits of COMM, plus three additional credits:

COMM 363 Documentary & Promo. Film Production (3)*
COMM 255 Screenwriting II (3)**
COMM 310 Fundraising (3)
COMM 380 Advanced Topics in Film Production (3)*
ART 251 Photography (3)
ART 352 Digital Photography (3)*
ART 431 Motion Design: Video, Animation, Communic. (3)*
THEA 120 Acting I (3)
THEA 150 Intro to Technical Theatre & Design (3)

*Must be taken for a letter grade. Three credits of INTE 394 count towards the major; additional credits are elective.

**Requires prerequisite(s), may increase the total credits required.

Journalism (B.A.) (48 credits)

COMM 105 Fundamentals of Oral Communication (3)
COMM 107 Introduction to Communication Seminar (1)
COMM 112 Newswriting (3)
COMM 207 Communication Design (3)
COMM 218 Mass Media and Society (3)
COMM 243 Audio/Visual Newsgathering (3)

Three credits from the following:

COMM 241 Small Group Communication (3)
COMM 313 Relational Communication (3)
COMM 342 Intercultural Communication (3)
COMM 354 Interpersonal Conflict (3)

Three credits from the following:

COMM 341 Communication Theory (3)
COMM 359 Rhetorical Theory (3)

COMM 330 Multimedia Storytelling (3)

COMM 365 Media Law and Ethics (3)

Four credits from the following:

COMM 392 Student Media Lab (1-3)
COMM 492 Student Media Lab (1-3)

COMM 493 Communication Senior Seminar (3)

Nine credits from the following Journalism electives (at least one 300/400 level course, at least two in COMM):

COMM 203 Basic Video and Editing Techniques (3)
COMM 247 Writing for Mass Media (3)
COMM 305 Magazine Writing (3)
COMM 317 Advanced Editing and Effects (3)*
COMM 319 Sports Broadcasting (3)
COMM 363 Documentary & Promo. Film Production (3)*
COMM 372 Alternative Approaches to Journalism (3)*
COMM 374 Topics in Media Production (3)*
COMM 376 Topics in Journalistic Writing (3)*
ART 251 Photography (3)
ART 336 Design for New Media (3)*
ART 352 Digital Photography (3)*

Four credits from the following:

INTE 391 Internship (1-3)**

INTE 394 Internship (external) (4-12)**

*Requires prerequisite(s), may increase the total credits required.

**Must be taken for a letter grade. Three credits of INTE 394 count towards the major; additional credits are elective.

Public Relations (B.A.) (44-46 credits)

COMM 105 Fundamentals of Oral Communication (3)

COMM 107 Introduction to Communication Seminar (1)

COMM 205 Principles of Public Relations (3)

Three credits from the following media courses:

COMM 211 Media in Everyday Life (3)

COMM 218 Mass Media and Society (3)

COMM 282 Topics in Media Studies (3)

COMM 382 History and Theory of Digital Media (3)

Three credits from the following interpersonal communication courses:

COMM 241 Small Group Communication (3)

COMM 313 Relational Communication (3)

COMM 342 Intercultural Communication (3)

COMM 354 Interpersonal Conflict (3)

Three credits from the following major writing courses:

BUSA 305 Writing for Business (3)

COMM 112 Newswriting (3)

COMM 247 Writing for Mass Media (3)

COMM 254 Screenwriting I (3)

COMM 305 Magazine Writing (3)

COMM 341 Communication Theory (3)

COMM 351 Public Relations Writing (3)

COMM 353 Crisis Communication and Media Relations (3)

COMM 359 Rhetorical Theory (3)

One of the following options, must be taken for letter grade. Placements must be external to the Department of Communication:

COMM 391 Communication Practicum (1-3)

INTE 391 Internship (1-3)

INTE 394 Internship (4-12)

COMM 493 Communication Senior Seminar (3)

MRKT 130 Marketing Principles (3)

Nine credits from the following (with a minimum of 6 credits from COMM courses):

COMM 203 Basic Video and Editing Techniques (3)

COMM 207 Communication Design (3)

COMM 301 Persuasion: Theory and Practice (3)

COMM 310 Fundraising (3)

COMM 333 Business & Organizational Communication (3)

COMM 357 Event Planning (3)

COMM 426 Public Relations Campaign (3)

MRKT 337 Integrated Marketing Communications (3)

MRKT 362 Social Media Marketing (3)

Broadcasting and Media Production Minor (18 credits)

COMM 218 Mass Media and Society (3)

Three credits from the following:

COMM 211 Media in Everyday Life (3)

COMM 282 Topics in Media Studies (3)

COMM 341 Communication Theory (3)

COMM 243 Audio/Visual Newsgathering (3)

Six elective credits from the following*:

COMM 203 Basic Video and Editing Techniques (3)

COMM 207 Communication Design (3)

COMM 247 Writing for Mass Media (3)

COMM 317 Advanced Editing and Effects (3)

COMM 363 Documentary and Promo. Film Production (3)

COMM 391 Communication Practicum (1-3)

INTE 391 Internship (1-3) or INTE 394 Internship (4-12)

*Must be taken for a letter grade (6) No more than 3 total credits from COMM 391, INTE 391 or INTE 394 may be applied to the minor. COMM 391 placement must be external to the Department of Communication.

Communication Minor (18 credits)

COMM 341 Communication Theory

Three credits from the following:

COMM 211 Media in Everyday Life (3)

COMM 218 Mass Media and Society (3)

COMM 282 Topics in Media Studies (3)

Three credits from the following interpersonal communication courses:

COMM 241 Small Group Communication (3)

COMM 313 Relational Communication (3)

COMM 342 Intercultural Communication (3)

COMM 354 Interpersonal Conflict (3)

Nine elective credits from the following, must be taken for a letter grade (9) No more than 3 total credits from COMM 391, INTE 391 or INTE 394 may be applied to the minor. COMM 391 placement must be external to the Department of Communication.

COMM 200 level or above*

INTE 391 Internship (1-3) or INTE 394 Internship (4-12)*

Journalism Minor (18 credits)

COMM 112 Newswriting (3)

COMM 218 Mass Media and Society (3)

COMM 330 Multimedia Storytelling (3)

COMM 243 Audio/Visual Newsgathering (3)

Three credits from the following:

COMM 341 Communication Theory (3)

COMM 359 Rhetorical Theory (3)

COMM 392 Student Media Lab (1-3 credits per semester for a total of 3 credits)

Public Relations Minor (18 credits)

COMM 205 Principles of Public Relations (3)

COMM 351 Public Relations Writing (3)

MRKT 130 Marketing Principles (3)

Nine credits from the following:

COMM 203 Basic Video and Editing Techniques (3)

COMM 207 Communication Design (3)

COMM 301 Persuasion (3)

COMM 310 Fundraising (3)

COMM 333 Business and Organization Communication (3)

COMM 353 Crisis Communication and Media Relations (3)

COMM 357 Event Planning (3)

COMM 426 Public Relations Campaign (3)

One of the following, must be taken for a letter grade (3) No more than 3 total credits from COMM 391, INTE 391 or INTE 394 may be applied to the minor. COMM 391 placement must be external to the Department of Communication.

COMM 391 Communication Practicum (1-3)*

INTE 391 Internship (1-3)*

INTE 394 Internship (4-12)*

Note: Either MRKT 337 Integrated Marketing Communications (3) or MRKT 362 Social Media Marketing (3) (but not both) may be substituted for 3 credits of the COMM elective courses.

ENGLISH

Department Chair: Jean Corey
Administrative Assistant: Denise Brown
Professors: C. Downing, D. Dzaka, P. Powers, M. Roth, S. Smith,
Associate Professors: J. Corey
Assistant Professor: K. Hasler-Brooks

Majors and Minors

The Department of English offers the following majors:

English (B.A.) *with concentrations in:*
Literature
Writing

English with Secondary Teaching Certification (B.A.)

The Department of English offers minors in Creative Writing and English.

English Major

The English program at Messiah College assists students in studying a wide array of literatures using a variety of critical thinking and writing skills to help them become perceptive readers, insightful thinkers, and responsible writers. Professors encourage students to develop perspectives on the relationship of Christian faith to all aspects of literary endeavor.

Because many careers call for close analysis and interpretation of texts as well as fluency in writing, the English major prepares students for success in a variety of fields. Besides the obvious career choices of advanced scholarship, teaching, journalism, and publishing, Messiah English majors have pursued law, business, Christian ministry, public relations, and other professional careers.

English (B.A.) (36 credits)

ENGL 201 Introduction to English Studies I (3)
ENGL 202 Introduction to English Studies II (3)
ENGL 494/ENGL 496 Senior Seminar (3)

One of the following concentrations:

Literature Concentration (27 credits)

Nine ENGL electives, which meet the following requirements:

Two British literature courses, one before 1800, one after*
Two American literature courses, one before 1900, one after*
One Postcolonial/World literature course*
Two Genre courses (one must be literature)
One writing course, may include COMM 112*
One Critical Theory course*

*Overlap possible

Writing Concentration (27 credits)

Nine ENGL electives, which meet the following requirements:

One British literature course
One American literature course
One Postcolonial World literature course
One Critical Theory course (writing or literature)
ENGL 203 Introduction to Creative Writing (prerequisite for workshop courses)
Four writing courses, may include COMM 112

Note: Three of these nine electives must include a genre focus (e.g. poetry, drama, fiction, memoir), only one of which can be a literature course. While students can only earn three credits per course, they may meet more than one area requirement in a single course. Any course meeting more than one requirement must be approved in advance by the Department of English.

English with Secondary Teaching Certification (B.A.) (74-77 cr.)

ENGL 201 Introduction to English Studies I (3)
ENGL 202 Introduction to English Studies II (3)
ENGL 230 Linguistics (3)
ENGL 370 Composition Theory and Pedagogy (counts as both writing and critical theory) (3)
ENGL 350 Postcolonial/World Literature (3)
ENGL 360 Genre: Young Adult Literature (3)
ENGL 494 Senior Seminar (literature focus)
Four to five electives (12-15 credits), meeting the following requirements (genre overlap possible):
Two British literature courses, one before 1800, one after
Two American literature courses, one before 1900, one after
One Genre course (other than Young Adult Literature)
EDSP 207 Introduction to Special Education (3)
EDSP 307 Inclusion Practices (3)
EDUC 201 Education and American Society (3)
EDUC 203 Educational Psychology (3)
EDUC 208 Teaching English Language Learners in K-12 Schools
EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)
MATH/CIS/STAT xxx meeting QuEST (6)
PSYC 311/HDFS 311 Adolescent Development (3)
TEP 210 Sophomore Field Experience (0)
TEP 310 Junior Field Experience (0)
TEP 410 Secondary Pre-Student Teaching Experience (0)

Professional Semester:

EDUC 420 Professional Issues in Education (2)
ENGL 407 Secondary English Curriculum and Instruction (3)
TEP 435 Student Teaching: Secondary (9)

Note: While students can only earn three credits per course, they may meet more than one area requirement in a single course. Any course meeting more than one requirement must be approved in advance by the Department of English.

Minors

Creative Writing Minor (18 credits)

ENGL 203 Introduction to Creative Writing (3)
ENGL 305 Creative Writing Workshops (9) (e.g. Poetry, Drama, Fiction, Literary Nonfiction, Memoir)
ENGL 300-level Literature courses (3)
ENGL 496 Writing Seminar (3)

English Minor (18 credits)

Fifteen (15) credits must be 200-level or above
Three credits of British Literature (3)
Three credits of American Literature (3)
Three credits of literature before 1900 (3)
Nine credits of ENGL electives (9)

Note: Fifteen credits must be 200-level or above

HISTORY

Department Chair: John Fea
Administrative Assistant: Christine Walter
Professors: J. Fea, J. Huffman, J. LaGrand,
B. Michael, N. Wilson
Associate Professor: D. Pettegrew

Majors and Minors

The Department of History offers the following majors:

History (B.A.) *with concentrations in:*

Administrative Studies
American History
Classical and Medieval European History
Modern European History
Public History
World History

History w/Secondary Social Studies Teaching Certification

The Department of History offers the following minors:

Classical, Medieval, and Renaissance Studies and History

The Department of History provides a wide range of course offerings in American, European, and World History. In addition, the Department faculty place a strong emphasis on the cultivation of specific skills and career-related abilities such as critical thinking, high quality written and oral communication, and methods of research.

At Messiah College the academic study of history is also grounded in the Christian liberal arts tradition, and as such it promotes life-long learning and historical reflection on today's society and culture.

In addition to course offerings, the Department offers many enrichment opportunities for majors—including working with professors on research projects; internships with museums, historical archives, and governmental agencies; study semesters around the world; and teaching in local schools. Students enjoy the benefit of studying in several learning environments, creatively connecting the past to the present.

Graduates from this Department are prepared to enter a variety of professions and occupations from collegiate and secondary level teaching, museums, archives, historic preservation, public history, and journalism to government service, law, business administration and management. The discipline of history develops analytical, communication, and organizational skills that prepare students for a broad range of careers.

History Major

In addition to intensive examination of a wide range of historical periods and subjects, the history major allows room for students to pursue other studies. For example, some take a second major, and many complete minors in areas from English, foreign languages, economics, and journalism to communication, business, and politics. Students are also required to seek experiential learning, either through study abroad or through an internship experience.

History (B.A.) (40-49 credits)

HIST 099 Introduction to History (1)

Three credits from the following:

HIST 101 Western Civilization Before 1500 (3)

HIST 102 Western Civilization Since 1500 (3)

HIST 141 U.S. History Survey to 1865 (3)

HIST 142 U.S. History Survey Since 1865 (3)

Three credits from the following:

HIST 171 World Civilizations: Bronze Age to 1500 (3)

HIST 172 World Civilizations: 1500 to Present (3)

HIST 258 Historical Methods (3)

One 300-level Classical and Medieval European History course* (3)

One 300-level Modern European History course* (3)

One 300-level World History course* (3)

One 300-level American History course* (3)

HIST 401 Historiography and Philosophy of History (3)

Three additional 300-level history courses* (9)

Experiential Learning Component (0-9) *from one of the following options:*

INTE 391 (1-3) or INTE 394 (4-9) Internship**

Study abroad option***(0)

* Students may use their three additional 300-level history courses to pursue one of the following history concentrations. HIST 391, HIST 392 and HIST 393 may count as concentration courses but do not count as the “One 300-level American, Modern European, World, or Classical and Medieval European History course.”

**An approved historical internship in the following areas: archives, museums, historical libraries and societies, historical preservation, public history, or any other field in which historical analysis or research is being performed. Approval of the department faculty is required before enrolling in any INTE course. Students with the Public History concentration must complete INTE 394.

***Participation in an approved study abroad program with at least one history course in the semester's curriculum. That history course will count towards either the core requirements or the elective requirements, and therefore will not increase the amount of credits required for the major.

Administrative Studies Concentration (21 credits)

HIST 393 Public History (3)

HIST 394 Digital History (3)

ECON 120 Principles of Macroeconomics (3)

POLI 113 American Government (3)

POLI 323 Public Policy (3)

Six credits from the following:

BUSA 120 Principles of Management (3)

BUSA 381 Business Law I: Legal Foundations for Business (3)

COMM 205 Principles of Public Relations (3)

COMM 333 Business and Organizational Communication (3)

COMM 342 Intercultural Communication (3)

POLI 212 International Politics (3)

POLI 214 Constitutional Law (3)

ECON 220 Principles of Microeconomics (3)

HRM 301 Human Resource Management (3)

HRM 311 Organizational Behavior (3)

LEAD 310 Leadership Theory and Development (3)

PHIL 325 Moral Problems (3)

SOAN 212 Introduction to Cultural Anthropology (3)

American History Concentration (9 credits)*Nine credits from the following:*

- HIST 341 Colonial America (3)
- HIST 342 America in the Age of the Revolution (3)
- HIST 344 Civil War America (3)
- HIST 346 Omaha to Hiroshima: U.S. History, 1890– 1945 (3)
- HIST 347 Modern America: U.S. History, 1945–Present (3)
- HIST 351 Native American History (3)
- HIST 352 African-American History Since 1865 (3)
- HIST 353 Immigrant America (3)
- HIST 355 U.S. Urban History (3)
- HIST 391 Historical Study of Peace (3)
- HIST 392 Women and Gender in History (3)
- HIST 393 Public History (3)

Classical and Medieval European History Concentration (9 cr)*Nine credits from the following:*

- HIST 301 Ancient Greece (3)
- HIST 302 Ancient Rome (3)
- HIST 303 Late Antiquity (3)
- HIST 304 Tudor/Stuart England: 1400-1700 (3)
- HIST 305 Archaeology and Historical Interpretation (3)
- HIST 310 Medieval Europe (3)
- HIST 319 Topics in Classical–Medieval European History (3)

Modern European History Concentration (9 credits)*Nine credits from the following:*

- HIST 320 Renaissance and Reformation Europe (3)
- HIST 321 The Age of Monarchy: 17th-18th Century Europe (3)
- HIST 322 Modern Europe: 1789–1918 (3)
- HIST 323 Europe in the 20th Century (3)
- HIST 324 European Imperialism and Its Legacies: 1500 to Present (3)
- HIST 332 Modern Germany (3)
- HIST 391 Historical Study of Peace (3)
- HIST 392 Women and Gender in History (3)

Public History Concentration (18 credits)*Three credits from the following:*

- HIST 305 Archaeology and Historical Interpretation (3)
- HIST 345 Pennsylvania History (3)
- HIST 390 Teaching History and Social Studies (3)

Any 300-level American history course (3)

HIST 393 Public History (3)

HIST 394 Digital History (3)

INTE 394 Historical Internship (4-9)

Six credits from the following applied courses:

- ARTH 308 Museum Studies (3)
- ART 236 Graphic Design and Visual Culture (3)
- ART 251 Photography (3)
- BUSA 120 Principles of Management (3)
- CIS 191 Web Development I: Client Side (3)
- COMM 351 Public Relations Writing (3)
- COMM 357 Event Planning (3)
- GIS 245 Introduction to Geographic Information Systems (3)

World History Concentration (9 credits)*Nine credits from the following:*

- HIST 371 Premodern Civilizations of Asia (3)
- HIST 372 Modern Civilizations of Asia (3)
- HIST 373 History of India before 1500 (3)
- HIST 374 History of Modern India and Pakistan (3)
- HIST 375 Gandhi's India: 1869–1948 (3)
- HIST 379 History of the Middle East (3)
- HIST 381 History of Africa (3)
- HIST 383 South Africa: Struggle for Freedom (3)
- HIST 391 Historical Study of Peace (3)
- HIST 392 Women and Gender in History (3)

History with Secondary Social Studies Teaching Certification (B.A.) (90 credits)

History majors wishing to be certified for social studies teaching on the secondary level (grades 7–12) may do so by admission into the Teacher Education Program. In addition to the history major, students use their elective credits for supporting courses in economics, politics, psychology, geography, and education.

Three credits from the following:

- HIST 101 Western Civilization Before 1500 (3)
- HIST 102 Western Civilization Since 1500 (3)

HIST 141 U.S. History Survey to 1865 (3)

HIST 142 U.S. History Survey Since 1865 (3)

Three credits from the following:

- HIST 171 World Civilizations: Bronze Age to 1500 (3)
- HIST 172 World Civilizations: 1500 to Present (3)

HIST 258 Historical Methods (3)

One 300-level Classical and Medieval European History course (3)

One 300-level Modern European History course (3)

One 300-level World History course (3)

One 300-level American History course (3)

Six credits additional 300- or 400-level History course (6)

HIST 390 Teaching History and Social Studies (3)

HIST 401 Historiography and Philosophy of History (3)

HIST 407 Issues in the History and Social Studies Classroom (1)

Experiential Learning Component

ECON 110 Economics of Social Issues (3)

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC 203 Educational Psychology (3)

EDUC 208 Teaching English Language Learners in K-12 Schools

EDUC 331 Instructional Design & Assessment: Middle & Sec.(3)

EDUC 420 Professional Issues in Education (2)

ENGL 122–176 Literature meeting QuEST (3)

GEOG 103 Regional Geography of the World (3)

POLI 113 American Government (3)

MATH/CIS/STAT xxx meeting QuEST (6)

PSYC 311/HDFS 311 Adolescent Development (3)

TEP 210 Sophomore Field Experience (0)

TEP 310 Junior Field Experience (0)

TEP 410 Secondary Pre-Student Teaching Experience (0)

TEP 435 Student Teaching: Secondary (9)

Classical, Medieval, and Renaissance Studies Minor (18 credits)

LATN 201 Intermediate Latin (3)*

One 3-credit course in History or Archaeology (3)

One 3-credit course in Literature or Philosophy (3)

One 3-credit course in ARTH, MUMH, or Theatre History (3)

Six credits from the following:

ARTH 150 Art History I: Ancient through Medieval Art (3)

ARTH 303 Ancient and Early Christian Art (3)

ARTH 304 Medieval and Renaissance Art (3)

ENGL 162 Of Gods and Humans (3)

ENGL 310 British Literature Before 1800: Medieval-
Renaissance English Literature (3)

ENGL 310 British Literature Before 1800: Milton (3)

ENGL 310 British Literature Before 1800: Shakespeare (3)

HIST 134 Knights, Peasants, and Bandits: Social History of
Medieval England (3)

HIST 301 Ancient Greece (3)

HIST 302 Ancient Rome (3)

HIST 303 Late Antiquity: AD 250-700 (3)

HIST 304 Tudor-Stuart England: 1400-1700 (3)

HIST 305 Archaeology and Historical Interpretation (3)

HIST 310 Medieval Europe: AD 700-1500 (3)

HIST 319 Topics in Classical – Medieval European History (3)

HIST 320 Renaissance and Reformation Europe (3)

LATN 201 Intermediate Latin (3)

MUMH 303 History of Music I (2)

PHIL 247 Ancient and Medieval Philosophy (3)

THEA 340 History of Theatre I: Antiquity to Renaissance (3)

*Requires prerequisite(s), may increase the total credits required.

History Minor (18 credits)*Three credits from the following:*

HIST 141 U.S. History Survey to 1865 (3)

HIST 142 U.S. History Survey Since 1865 (3)

HIST 258 Historical Methods (3)

Three credits upper-level American history (3)

Three credits upper-level European history (3)

Three credits upper-level World history (3)

Three credits 300-level HIST electives (3)

MODERN LANGUAGES**Department chair:** Gladys Robalino**Administrative Assistant:** Deborah Chopka**Professor:** J. Beaney, K. Yúnez**Associate Professors:** G. Robalino, S. Rodriguez, L. Ye**Senior Lecturers:** H. Dravk, A. Ginck

Majors and Minors

The Department of Modern Languages offers the following majors:

Chinese Business (B.A.)

Chinese Studies (B.A.)

Chinese Studies (B.A.) with K-12 Teaching Certification (B.A.)

French (B.A.)

French with K-12 Teaching Certification (B.A.)

German (B.A.)

German with K-12 Teaching Certification (B.A.)

Spanish (B.A.)

Spanish Business (B.A.)

Spanish with K-12 Teaching Certification (B.A.)

The Department of Modern Languages offers the following minors:

Chinese Studies

French

German

Spanish

Special Programs

Ludwig-Maximilians-Universität, Munich, Germany

Pontificia Universidad Católica de Valparaíso, Chile

Universidad de Granada, España

Institut Catholique de Paris, France

La Sorbonne, Paris, France

Modern Languages

Students who major in Chinese Studies, French, German or Spanish learn to communicate effectively with speakers of these languages, gain an understanding of how they perceive the world and critically reflect on their own culture. To this end, all language majors study the language itself and examine historical and contemporary cultures and acquire knowledge about the literary heritage of the respective cultures through the study of individual authors or periods of particular significance.

The Chinese Business major combines a core business curriculum with the study of Chinese language throughout the entire program. Special attention is given to the development of cultural understanding with direct experience in China. Career possibilities include government, business, missions, translating and interpreting, teaching and international business or service.

The Spanish Business major offers a core business curriculum with study of Spanish language throughout the entire program. Special attention is given to the development of cultural understanding with direct experience in Latin America. Career possibilities include government, business, missions, translating and interpreting, teaching and international business or service.

All modern language majors fulfill some of their required courses in study abroad programs. The Chinese Studies major requires one semester of study in China at the Xiamen University or the CIEE program in Shanghai. The French major requires study at the Institut

Catholique de Paris, or La Sorbonne, Paris, France. The German major requires study at Ludwig Maximilians-Universität in Munich, Germany. The Spanish major requires study at the Universidad de Granada, the Pontificia Universidad Católica de Valparaíso or Universidad de Adolfo Ibáñez, Viña del Mar, Chile.

The pre-requisites for study abroad are:

- Sophomore, junior, or senior status
- Four completed semesters of college-level courses in the language of their major
- 2.75 GPA (China, France, Spain, and Chile); 3.0 GPA (Germany)
- Clear probation record (disciplinary, chapel, academic)*
- Apply for pre-approval a year in advance (Fall - December 1; spring April 1)

The study of language is required for students in all majors. The QuEST Language/Cultures requirement can be met by the completion of three semesters of one modern language or by completing two semesters of one language in addition to a cross-cultural study tour (see QuEST requirements).

*Students denied the opportunity to do study abroad can appeal to the Dean

Chinese Business Major

The Chinese Business major is sponsored by the Department of Modern Languages and the Department of Business. It combines a core business curriculum with the study of Chinese language throughout the entire program. Special attention is given to the development of cultural understanding with direct experience in China.

Chinese Business (B.A.) (70-71 credits)

CHIN 101 Fundamentals of Chinese I (3)
CHIN 102 Fundamentals of Chinese II (3)
CHIN 201 Intermediate Chinese I (3)
CHIN 202 Intermediate Chinese II (3)
CHIN 301 Advanced Chinese (3)
CHIN 302 Advanced Chinese II (3)
ACCT 141 Financial Accounting (3)
BUSA 102 Opportunities in Business (1)
BUSA 120 Principles of Management (3)
CIS 190 Strategic Use of Information Technology (3)
ECON 120 Principles of Macroeconomics (3)
ECON 220 Principles of Microeconomics (3)
ECON 312 Economic Development (3)
IBUS 375 International Business and World Economy (3)
IBUS 377 Ministry in International Business (3)
LANG 493 Modern Languages Seminar (3)

Three to four credits from the following:

MATH 107 Applied Math for Management (3)
MATH 108 Intuitive Calculus with Applications (3)
MATH 111 Calculus I (4)

MRKT 130 Marketing Principles (3)
STAT 281 Applied Statistics for Management (3)
Semester in China (15)*

At least 6 credits of Chinese language
At least 6 credits in business or economics**
3 additional credits in either Chinese language or culture**

*Students are required to confirm with the Department of Modern Languages chair that the courses they select are acceptable.

**Students may not repeat a business or economics course that they have taken at Messiah.

Chinese Studies Major

The Chinese Studies major offers a variety of courses in the study of Chinese language and culture. Introductory and intermediate level courses focus on grammar, conversation, reading, writing and culture. Advanced level courses include continued acquisition of Chinese language skills and extensive cultural content.

Chinese Studies (B.A.) (45 credits)

CHIN 101 Fundamentals of Chinese I (3)
CHIN 102 Fundamentals of Chinese II (3)
CHIN 201 Intermediate Chinese I (3)
CHIN 202 Intermediate Chinese II (3)
CHIN 301 Advanced Chinese (3)
CHIN 302 Advanced Chinese II (3)
LANG 493 Modern Languages Seminar (3)

Six credits from the following:

CHIN 260/IDCC 260 China Cross-Cultural (3)
CHIN 320 Special Topics in Chinese (3)
CHIN 391 Independent Study (1-3)
HIST 371 Premodern Civilizations of Asia (3)
HIST 372 Modern Civilizations of Asia (3)
PHIL 318 Asian Philosophy (3)
POLI 370 Topics: Modern Chinese Politics (3)
RELI 334 Religions of China and Japan (3)

Fifteen credits of approved Chinese courses during a semester in China.

At least 12 credits of Chinese language
3 additional credits of Chinese language or Chinese culture.

Note: A minimum of 36 credits in Chinese (CHIN) is required.

Chinese Studies with K-12 Teaching Certification (B.A.) (90 cr)

CHIN 101 Fundamentals of Chinese I (3)
CHIN 102 Fundamentals of Chinese II (3)
CHIN 201 Intermediate Chinese I (3)
CHIN 202 Intermediate Chinese II (3)
CHIN 301 Advanced Chinese (3)
CHIN 302 Advanced Chinese II (3)
CHIN 320 Special Topics in Chinese (3)
LANG 493 Modern Languages Seminar (3)

Six credits from the following:

CHIN 260 China Cross-Cultural (3)
CHIN 391 Independent Study (1-3)
HIST 371 Premodern Civilizations of Asia (3)
HIST 372 Modern Civilizations of Asia (3)
PHIL 318 Asian Philosophy (3)
POLI 370 Chinese Politics (3)
RELI 334 Religions of China and Japan (3)

Fifteen credits of approved Chinese courses during a semester in China*.

At least 12 credits of Chinese language
3 additional credits of Chinese language or Chinese culture.

CIS/MATH/STAT XXX meeting Gen. Ed. Req. (6)
EDSP 207 Introduction to Special Education (3)
EDSP 307 Inclusion Practices (3)
EDUC 201 Education and American Society (3)
EDUC 203 Educational Psychology (3)
EDUC 208 Teaching English Language Learners in K-12 Schools
EDUC 331 Instructional Design & Assessment for Secondary Education (3)
EDUC 420 Professional Issues in Education (3)
ENGL 122-176 Literature meeting Gen. Ed. (3)
LANG 320 Foreign Language Teaching Methodology (3)
LANG 407 Language Curriculum & Instruction (1)
PSYC 311 Adolescent Development (3)

TEP 210 Sophomore Field Experience (0)
TEP 310 Junior Field Experience (0)
TEP 410 Secondary Pre-Student Teaching Experience (0)
TEP 435 Student Teaching: Secondary (9)

*Students should confirm with the Department of Modern Languages that the courses that they select are approved for the Chinese Studies with Teaching certification major.

Chinese Studies Minor (21 credits beyond CHIN 102)

CHIN 201 Intermediate Chinese I (3)
CHIN 202 Intermediate Chinese II (3)
CHIN 301 Advanced Chinese (3)

Twelve credits from one of the following options:

- Twelve additional credits in Chinese language fulfilled in China (12)
- Both of the following fulfilled in China (12):
Nine additional credits in Chinese language (9)
Three credits in Chinese culture (3)
- CHIN 302 Advanced Chinese II (3) **and**

Nine credits from the following:

CHIN 260/IDCC 260 China Cross-Cultural (3)
CHIN 320 Special Topics in Chinese (3)
CHIN 391 Independent Study (1-3)
HIST 371 Premodern Civilizations of Asia (3)
HIST 372 Modern Civilizations of Asia (3)
PHIL 318 Asian Philosophy (3)
POLI 370 Topics: Modern Chinese Politics (3)
RELI 334 Religions of China and Japan (3)

French Major

The French major encompasses a wide variety of courses to study the language itself, as well as the history, literature, culture, and civilization of French-speaking people. Introductory level courses focus on grammar, phonetics, conversation, composition and culture and are taught with an emphasis on oral proficiency. Intermediate and advanced courses are taught in French.

French (B.A.) (36-42 credits)

FREN 101 Fundamentals of French I (3)
FREN 102 Fundamentals of French II (3)
FREN 201 Intermediate French (3)
FREN 206 French Culture and Language (3)
LANG 493 Modern Languages Seminar (3)

27 credits from the following:

Nine credits of the following:

FREN 301 Contemporary French Culture (3)
FREN 320 Selected Topics in French (3)
FREN 322 Advanced Composition and Conversation I (3)
FREN 324 Advanced Composition and Conversation II (3)

15 credits of approved French courses through the ISA Program in Paris, France. Students may select among a variety of humanities courses that may include grammar, literature, history, art history, or political science. Students should confirm with the Department of Modern Languages that the courses they select are approved for the French major.

Note: A minimum of 33 credits in French (FREN) is required.

French with K-12 Teaching Certification (B.A.) (87 Credits)

FREN 101 Fundamentals of French I (3)
FREN 102 Fundamentals of French II (3)
FREN 201 Intermediate French (3)
FREN 206 French Culture and Language (3)
LANG 493 Modern Language Seminar (3)

27 credits from the following:

At least nine credits from the following:

FREN 301 Contemporary French Culture (3)
FREN 320 Selected Topics in French (3)
FREN 322 Advanced Composition and Conversation (3)
FREN 324 Advanced Composition and Conversation (3)

At least 15 credits of approved French courses through the ISA Program in Paris, France. Students may select among a variety of humanities courses that may include grammar, literature, history, art history, or political science. Students must confirm with the Department of Modern Languages that the courses that they select are approved for the French major.

Note: A minimum of 33 credits in French (FREN) is required.

EDSP 207 Introduction to Special Education (3)
EDSP 307 Inclusion Practices (3)
EDUC 201 Education and American Society (3)
EDUC 203 Educational Psychology (3)
EDUC 208 Teaching English Language Learners in K-12 Schools
EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)

ENGL 122-176 Literature meeting QuEST (3)
LANG 320 Foreign Language Teaching Methodology (3)
MATH/CIS/STAT xxx QuEST (6)
TEP 210 Sophomore Field Experience (0)
TEP 310 Junior Field Experience (0)
TEP 410 Secondary Pre-Student Teaching Experience (0)
Professional Semester:
EDUC 420 Professional Issues in Education (2)
LANG 407 Language Curriculum and Instruction (1)
PSYC 311/HDFS 311 Adolescent Development (3)
TEP 435 Student Teaching: Secondary (9)

French Minor (18 credits beyond FREN 201, a total of 21 credits)

FREN 201 Intermediate French (3)
FREN 206 French Culture and Language (3)

Six credits from the following:

FREN 301 Contemporary French Culture (3)
FREN 320 Selected Topics in French (3)
FREN 322 Advanced Composition and Conversation I (3)
FREN 324 Advanced Composition and Conversation II (3)

Nine additional credits fulfilled at either the Mechanicsburg Campus, or the ISA Program in Paris, France, from the approved list. Courses should be selected among a variety of humanities courses that may include grammar, literature, history, art history, or political science. Students should confirm with the Department of Modern Languages that the courses they select are approved for the French minor.

Note: Students who demonstrate proficiency to the 201 level need to take 18 credits at the 206 level and higher, a total of 21 credits.

German Major

The German Major encompasses a wide variety of courses to study the language itself, as well as the history, literature, culture, and civilization of German-speaking people. Introductory level courses focus on grammar, phonetics, conversation, composition and culture and are taught with an emphasis on oral proficiency. Intermediate and advanced courses are taught in German.

German (B.A.) (36-42 credits)

GERM 101 Fundamentals of German I (3)

GERM 102 Fundamentals of German II (3)

GERM 201 Intermediate German (3)

GERM 206 Contemporary German Culture (3)

LANG 493 Modern Languages Seminar (3)

27 credits of approved German courses beyond the 206 level including:

GERM 211 Unified Germany (3)

GERM 301 Readings in German Literature I (3)

GERM 302 Readings in German Literature II (3)

18 credits of approved German courses through the *Ludwig Maximilians-Universität in Munich, Germany*. Students may select among courses in grammar, literature, history, or political science. See the Department of Modern Languages for approved course descriptions.

Note: A minimum of 33 credits in German (GERM) is required.

German with K-12 Teaching Certification (B.A.) (87 Credits)

GERM 101 Fundamentals of German I (3)

GERM 102 Fundamentals of German II (3)

GERM 201 Intermediate German (3)

GERM 206 Contemporary German Culture (3)

LANG 493 Modern Language Seminar (3)

27 credits of approved German courses beyond the 206 level from the following:

GERM 211 Unified Germany (3)

GERM 301 Readings in German Literature I (3)

GERM 302 Readings in German Literature II (3)

18 credits of approved German courses through the *Ludwig Maximilians-Universität in Munich, Germany*. Select courses in grammar, literature, history, or political science. Note: A minimum of 33 credits in German (GERM) is required.

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC 203 Educational Psychology (3)

EDUC 208 Teaching English Language Learners in K-12 Schools

EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)

ENGL 122-176 Literature meeting QuEST (3)

MATH/CIS/STAT xxx QuEST Mathematics (6)

TEP 210 Sophomore Field Experience (0)

TEP 310 Junior Field Experience (0)

TEP 410 Secondary Pre-Student Teaching Experience (0)

LANG 320 Foreign Language Teaching Methodology (3)

Professional Semester:

EDUC 420 Professional Issues in Education (2)

LANG 407 Language Curriculum and Instruction (1)

PSYC 311/HDFS 311 Adolescent Development (3)

TEP 435 Student Teaching: Secondary (9)

German Minor (21 credits beyond GERM 102 or 18 credits beyond GERM 201)

GERM 201 Intermediate German (3)

GERM 206 Contemporary German Culture (3)

Three credits from the following:

GERM 211 Unified Germany (3)

GERM 301 Readings in German Literature I (3)

GERM 302 Readings in German Literature II (3)

Twelve additional credits fulfilled at the *Ludwig Maximilians-Universität in Munich, Germany*. Courses should be selected among a variety of humanities courses that may include grammar, literature, history, art history, or political science. Students must confirm with the Department of Modern Languages that the courses they select are approved for the German major.

Spanish Major

The Spanish Major encompasses a wide variety of courses to study the language itself, as well as the history, literature, culture, and civilization of the Spanish-speaking peoples. Introductory level courses focus on grammar, phonetics, conversation, composition and culture and are taught with an emphasis on oral proficiency. Intermediate and advanced courses are taught in Spanish.

Spanish (B.A.) (45 credits)

SPAN 101 Fundamentals of Spanish I (3)

SPAN 102 Fundamentals of Spanish II (3)

SPAN 201 Intermediate Spanish (3)

SPAN 206 Spanish Conversation and Composition (3)

Six credits from the following:

SPAN 301 Topics in Latin American Literature (3)

SPAN 302 Culture and Identity in Latin America (3)

SPAN 305 Latin American Plays of Protest (3)

SPAN 306 Contemporary Mexico (3)

Six credits from the following:

SPAN 311 Topics in Spanish Peninsular Literature (3)

SPAN 312 Topics in Spanish Peninsular Culture (3)

SPAN 314 The Counter Reformation & Spanish Baroque (3)

SPAN 331 Trans-Atlantic Literature (3)

Three credits from the following:

SPAN 320 Spanish Linguistics (3)

SPAN 322 Applied Phonetics (3)

SPAN 324 Contrastive Linguistics (3)

LANG 493 Modern Language Seminar (3)

15 credits of approved Spanish courses through the study abroad program at the *University of Granada, Spain*, or through the *ISA program at the Pontificia Universidad Católica de Valparaíso, Chile*. Students must complete at least one Latin American or Spanish peninsular literature class (3). Additional courses should be selected among a variety of humanities courses that may include grammar, literature, history, art history, or political science to attain a total of 15 credits of Spanish classes. Students must confirm with the Department of Modern Languages that the courses that they select are approved for the Spanish major.

Note: A minimum of 33 credits in Spanish (SPAN) is required.

Spanish with K-12 Teaching Certification (B.A.) (89 credits)

SPAN 101 Fundamentals of Spanish I (3)

SPAN 102 Fundamentals of Spanish II (3)

SPAN 201 Intermediate Spanish (3)

SPAN 206 Spanish Conversation and Composition (3)

Six credits from the following:

SPAN 301 Topics in Latin American Literature (3)

- SPAN 302 Culture and Identity in Latin America (3)
- SPAN 305 Latin American Plays of Protest (3)
- SPAN 306 Contemporary Mexico (3)

Six credits from the following:

- SPAN 311 Topics in Spanish Peninsular Literature (3)
- SPAN 312 Topics in Spanish Peninsular Culture (3)
- SPAN 314 The Counter Reformation & Spanish Baroque (3)
- SPAN 331 Trans-Atlantic Literature (3)

Three credits from the following:

- SPAN 320 Spanish Linguistics (3)
- SPAN 322 Applied Phonetics (3)
- SPAN 324 Contrastive Linguistics (3)

LANG 493 Modern Language Seminar (3)

15 credits of approved Spanish courses through the study abroad program at the University of Granada, Spain, or through the ISA program at the Pontificia Universidad Católica de Valparaíso, Chile. Students must complete at least one Latin American or Spanish peninsular literature class (3). Additional courses should be selected among a variety of humanities courses that may include grammar, literature, history, art history, or political science to attain a total of 15 credits of Spanish classes. Students must confirm with the Department of Modern Languages that the courses that they select are approved for the Spanish major.

- EDSP 207 Introduction to Special Education (3)
- EDSP 307 Inclusion Practices (3)
- EDUC 201 Education and American Society (3)
- EDUC 203 Educational Psychology (3)
- EDUC 208 Teaching English Language Learners in K-12 Schools
- EDUC 331 Instructional Design & Assess. for Middle & Second (3)
- ENGL 122-176 Literature meeting QuEST (3)
- LANG 320 Foreign Language Teaching Methodology (3)
- MATH/CIS/STAT xxx QuEST Mathematics (6)
- TEP 210 Sophomore Field Experience (0)
- TEP 310 Junior Field Experience (0)
- TEP 410 Secondary Pre-Student Teaching Experience (0)

Professional Semester:

- EDUC 420 Professional Issues in Education (2)
 - LANG 407 Language Curriculum and Instruction (1)
 - PSYC 311/HDFS 311 Adolescent Development (3)
 - TEP 435 Student Teaching: Secondary (9)
- Note:** A minimum of 33 credits in Spanish (SPAN) is required.

Spanish Minor (21 credits beyond SPAN 102, or 18 credits beyond SPAN 201)

- SPAN 201 Intermediate Spanish (3)
- SPAN 206 Spanish Conversation and Composition (3)

Six credits from the following:

- SPAN 211 Spanish Theatre Production (3)
- SPAN 301 Topics in Latin American Literature (3)
- SPAN 302 Culture and Identity in Latin America (3)
- SPAN 305 Latin American Plays of Protest (3)
- SPAN 306 Contemporary Mexico (3)
- SPAN 311 Topics in Spanish Peninsular Literature (3)
- SPAN 312 Topics in Spanish Peninsular Culture (3)
- SPAN 314 The Counter Reformation & Spanish Baroque (3)
- SPAN 320 Spanish Linguistics (3)
- SPAN 322 Applied Phonetics (3)
- SPAN 324 Contrastive Linguistics (3)
- SPAN 331 Trans-Atlantic Literature (3)

Nine additional credits fulfilled at Mechanicsburg, Granada, Spain, or Valparaíso, Chile. Courses should be selected among a variety of humanities courses that may include grammar, literature, history, art history, or political science to attain a total of 15 credits of Spanish

classes. Students must confirm with the Department of Modern Languages that the courses they select are approved for the Spanish minor. Students who do not study in Barcelona or Valparaíso may include a cross-cultural course IDCC 260 to a Spanish-speaking country directed by a faculty member from the Department of Modern Languages (or by approval of the Department Chair) among the nine additional credits. Students must complete assignments for the cross-cultural course in Spanish.

Note: Students who demonstrate proficiency to the 201 level need to take 18 credits at the 206 level and higher, a total of 21 credits).

Spanish Business Major

The Spanish Business Major is sponsored by the Department of Modern Languages and the Department of Business. It offers a core business curriculum and weaves second language study throughout the entire four years. Special attention is given to the development of cultural understanding with direct experience in Latin America.

Spanish Business (B.A.) (76-77 credits)

- SPAN 101 Fundamentals of Spanish I (3)
- SPAN 102 Fundamentals of Spanish II (3)
- SPAN 201 Intermediate Spanish (3)
- SPAN 206 Spanish Conversation and Composition (3)
- SPAN 221 Business Spanish (3)

Nine credits from the following:

- SPAN 211 Spanish Theatre Production (3)
- SPAN 301 Topics in Latin American Literature (3)
- SPAN 302 Culture and Identity in Latin America (3)
- SPAN 305 Latin American Plays of Protest (3)
- SPAN 306 Contemporary Mexico (3)
- SPAN 311 Topics in Spanish Peninsular Literature (3)
- SPAN 312 Topics in Spanish Peninsular Culture (3)
- SPAN 314 The Counter Reformation & Spanish Baroque (3)
- SPAN 320 Spanish Linguistics (3)
- SPAN 322 Applied Phonetics (3)
- SPAN 324 Contrastive Linguistics (3)
- SPAN 331 Trans-Atlantic Literature (3)

- ACCT 141 Financial Accounting (3)
- BUSA 102 Opportunities in Business (1)
- BUSA 120 Principles of Management (3)
- CIS 190 Strategic Use of Information Technology (3)
- ECON 120 Principles of Macroeconomics (3)
- ECON 220 Principles of Microeconomics (3)
- ECON 312 Economic Development (3)
- IBUS 375 International Business and World Economy (3)
- IBUS 377 Ministry in International Business (3)
- LANG 493 Modern Languages Seminar (3)

Three to four credits from the following:

- MATH 107 Applied Math for Management (3)
- MATH 108 Intuitive Calculus with Applications (3)
- MATH 111 Calculus I (4)

- MRKT 130 Marketing Principles (3)
- STAT 281 Applied Statistics for Management (3)

15 credits of approved Spanish courses through the study abroad program at the University of Granada, Spain, or through the ISA program at the Pontificia Universidad Católica de Valparaíso, Chile. Students should select two business or economics courses, and they should also select among a variety of humanities courses that may include grammar, literature, history, art history, or political science. Students should confirm with the Department of Modern Languages that the courses that they select are approved for the Spanish Major.

PHILOSOPHY

Department Chair:	Tim Schoettle
Administrative Assistant:	Deborah Chopka
Professors:	R. Basinger, R. Collins, C. Miller, T. Schoettle
Associate Professors:	D. Schenk

The Department of Philosophy offers a major in Philosophy (B.A.) and a minor in Philosophy.

The programs in the Department of Philosophy are designed to introduce students to a careful, systematic investigation of fundamental issues of reality and human experience. By addressing such issues as whether or not we have free will, God's relation to the world and to evil, and the nature and origin of morality, philosophy equips students with the sort of background and intellectual skills that will enrich their lives, enhance their effectiveness in virtually any career, and enable them to develop a distinctively Christian view of the world.

The major in philosophy offers intensive training in analytical and critical thinking skills, a broad historical background in Western thought, and an exposure to Non-Western philosophy. This training can serve as a valuable basis for more advanced studies in graduate, law, or divinity school, and enhance the effectiveness of graduates in other professions. Moreover the Philosophy Major serves the church and the world by equipping Christians, whether laypersons or seminary-trained leaders, with the ability to address fundamental issues of concern to every person.

Philosophy (B.A.) (36 credits)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

PHIL 220 Introduction to Logic (3)

PHIL 247 Ancient and Medieval Philosophy (3)

PHIL 253 Modern Philosophy (3)

PHIL 318 Asian Philosophy (3)

Three credits from the following:

PHIL 325 Moral Problems (3)

PHIL 382 Ethics (3)

PHIL 341 Epistemology and Metaphysics (3)

PHIL 345 Philosophy of Religion (3)

Three credits from the following:

PHIL 352 Existentialism (3)

PHIL 354 Phenomenology (3)

PHIL 460 Philosophy Seminar (3)

Six credits from 300-level PHIL electives, may include 3 credits of INTE 391 Internship.

Philosophy Minor

The Philosophy Minor is designed for students who wish to supplement their primary education in another field with the study of philosophy. It also allows great flexibility to explore those areas of philosophy that are of the most interest and benefit to the individual student.

Philosophy Minor (18 credits)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

Fifteen credits of additional PHIL electives

POLITICS and INTERNATIONAL RELATIONS

Department Chair:	Paul Rego
Administrative Assistant:	Christine Walter
Professors:	D. Curry, J. Harles
Associate Professor:	P. Rego

Majors and Minors

The Department of Politics and International Relations offers the following majors:

Politics and International Relations (B.A.) *with concentrations in:*

International Relations

Political Studies

Politics and International Relations (B.A.) with an M.S. in Public Policy and Management (joint degree offered with Carnegie Mellon University)

Sustainability Studies (B.A.) *Concentration: Sustainability Public Policy* (see Interdisciplinary section for details)

The Department of Politics and International Relations offers minors in Politics and in Pre-Law.

The Department of Politics and International Relations introduces students to the major sub-fields of this discipline—American and comparative politics, international politics, and political theory—all within the context of a rigorous liberal arts education. By creating an intimate and collegial learning environment, one placing a premium on individual student initiative, the Department of Politics and International Relations produces intellectually agile, socially fluent, and self-confident graduates.

Politics and International Relations majors nurture the analytical, verbal, and written abilities that are the hallmark of the liberal arts. Our faculty encourage students to think independently, to engage opposing points of view, and to develop an abiding concern for public life in the interest of social justice. Moreover, the study of politics is an especially useful means of understanding the forces of globalization—the power relationships responsible for an increasingly integrated world. The Department of Politics and International Relations aims to educate students for democracy and for thoughtful and meaningful participation in the political process. As students of politics our task is to interpret the world and to change it.

Politics and International Relations (B.A.) (45 credits)

Core requirements (18 credits)

POLI 113 American Government (3)

POLI 204 History of Political Thought (3)

POLI 212 International Politics (3)

POLI 213 Comparative Politics (3)

POLI 243 Political Research Methods (3)

POLI 494 Politics Seminar (3)bn

One of the following concentrations:

Political Studies Concentration (27 credits)

27 credits * POLI xxx Politics electives

International Relations Concentration (27 credits)*

ECON 120 Principles of Macroeconomics (3)

ECON 220 Principles of Microeconomics (3)

Three credits from the following:

ECON 312 Economic Development (3)

IBUS 375 International Business and World Economy (3)

Twelve credits from the following:

POLI 222 Politics in Latin America (3)

POLI 342 Politics in Canada (3)

POLI 346 Russia After Communism (3)

POLI 348 Politics of the United Kingdom (3)

POLI 370 Topics in International Relations (3)

An approved POLI or European or World HIST course (3)

POLI 362 Theories of International Relations (3)

POLI xxx Politics elective (3)

*Nine credits is the maximum number of internship/practica credits that can apply toward the Politics and International Relations major. This maximum includes any courses or experiential credit earned as a part of a semester-long off-campus program.

**Politics and International Relations with Political Studies (B.A.)
Messiah College /Public Policy and Management (M.S.) Carnegie
Mellon University**

Qualified students interested in pursuing graduate school in public policy are eligible to participate in an accelerated 32 program in conjunction with Carnegie Mellon University's Heinz School of Public Policy and Management. Students participating in this program complete three years of academic work at Messiah College followed by two years of graduate work at the Heinz School. At the end of the five year program the student receives a B.A. in Politics from Messiah College and a Master of Science in Public Policy and Management from Carnegie Mellon University. Students applying to this program must be approved by the Messiah program coordinator and meet all Carnegie Mellon Heinz School admission requirements. The submission of a five to seven page faith-politics integration paper under the direction of the Program Coordinator will be required for admission into the Public Policy and Management program.

**Politics and International Relations with Political Studies
(B.A.)/Public Policy and Management (M.S.)**

(36 Messiah College credits, 15 Carnegie Mellon credits)

ECON 120 Principles of Macroeconomics (3)

POLI 113 American Government (3)

POLI 204 History of Political Thought (3)

POLI 212 International Politics (3)

POLI 213 Comparative Politics (3)

POLI 243 Political Research Methods (3)

POLI 323 Public Policy (3)

15 credits from POLI xxx Politics elective courses

Four 12-unit courses at Carnegie Mellon (Carnegie Mellon University defines a 12-unit course as the equivalent of a three-semester-hour course) in public policy, political science, and/or methodology from Carnegie Mellon University's MS in Public Policy and Management curriculum

MS Public Policy and Management capstone course (3)

Politics Minor (18 credits)**Six credits from the following:*

POLI 113 American Government (3)

POLI 204 History of Political Thought (3)

POLI 212 International Politics (3)

POLI 213 Comparative Politics (3)

12 credits from POLI elective courses

*No more than 3 credits from approved internships or practica

Pre-Law Minor (21 credits)

POLI 113 American Government (3)

POLI 214 Constitutional Law: Governmental Powers and Constraints (3)

PHIL 220 Introduction to Logic (3)

Three credit 300-level ENGL literature elective (3)

Three credit 300-level HIST elective (3)

Six credits from the following:

BUSA 381 Business Law I (3)

BUSA 382 Business Law II (3)*

POLI 316 Constitutional Law: Civil Liberties (3)

POLI 392 Pre-Law Practicum (3)

*BUSA 381 Business Law I is a prerequisite for BUSA 382

School of Science, Engineering and Health

Dean: Angela C. Hare, Ph.D.

Administrative Assistant: Holly Myers

The School of Science, Engineering and Health seeks to embody the mission of Messiah College by providing:

- Premier programs that are intellectually robust, experientially rich, and faith affirming;
- Cognitive, technical, and professional competencies required to excel in vocations related to our disciplines;
- Experience in applying academic knowledge to real-world challenges, in both local and global settings through service-oriented initiatives;
- An understanding of how our disciplines can support our Christian calling to be agents of redemption, peace, reconciliation, and justice in a fallen world.

The School of Science, Engineering and Health includes the following academic departments and programs:

- Department of Biological Sciences
- Department of Chemistry and Biochemistry
- Department of Computer and Information Science
- Department of Engineering
- Department of Health, Nutrition and Exercise Science
- Department of Mathematics, Physics and Statistics
- Department of Nursing
- Graduate Programs in Nursing
- Pre-Professional Health Programs
 - Pre-Medical Programs
 - Pre-Allied Health Programs
 - Pre-Physical Therapy Programs
- The Collaboratory for Strategic Partnerships and Applied Research
- The Oakes Museum of Natural History

BIOLOGICAL SCIENCES

Department Chair: Erik Lindquist

Assistant Chair: John Harms

Administrative Assistant: Cynthia Steffan

Professors: S. Boyce, E. Davis, G. Emberger,
D. Foster, E. Lindquist, J. Makowski,
L. Mylin

Associate Professors: J. Harms, M. Shin

Assistant Professor: J. Erikson, J. Ness-Myers

Majors and Minors

The Department of Biological Sciences offers the following majors:

Biology (B.S.) *with concentrations in:*

Biomedical
Cellular
Ecological
General
Organismal

Biology with Secondary Teaching Certification (B.S.)

Biopsychology (B.S.) (see Interdisciplinary section)

Biopsychology (B.S.)/MSOT in Occupational Therapy with
Thomas Jefferson University (see Interdisciplinary section)

Environmental Science (B.S.)

Molecular Biology (B.S.)

Sustainability Studies (B.A.) (see Interdisciplinary section)

with concentrations in:

Community and Urban Development
Sustainable Agriculture
Sustainability Public Policy

The Department of Biological Sciences offers the following minors:

Biology
Environmental Science
Sustainability Studies (see Interdisciplinary section)

Pre-Professional Health Programs

Pre-Medical
Pre-Allied Health
Pre-Physical Therapy

Special Program: AuSable Institute of Environmental Studies

Program Options

The Department of Biological Sciences seeks to provide students with an understanding of the sciences that will enable them to continue study in graduate school, medical school, the allied health field, or immediately seek employment in a variety of settings in industry, business, education, and government. The unique advantage of studying biological science at Messiah is that students work in the context of a Christian liberal arts education. Thus, while investigating the world around them, they also study themselves and their Creator. The Department places special emphasis on integrating the knowledge and methods of the sciences with what Christian faith teaches about people and their place in the universe.

Messiah College has outstanding facilities for the study of the biological sciences. The Jordan Science Center together with the Kline Hall of Science offers well-equipped laboratories, research facilities, computer facilities, much instrumentation including a scanning electron microscope, an NMR and HPLC, a greenhouse, and The Oakes Museum of Natural History. The 400-acre campus includes woodlands, fields, and the Yellow Breeches Creek, affording excellent opportunities for field experiences. Field trips are a regular part of many courses, and special science courses have been offered

in places such as Florida, Zambia, New Zealand, Patagonia, Belize, and Southeast Asia.

Biological Science Majors find a variety of research opportunities available. These enable students to combine theory with different experimental techniques both in the lab and the field. Internships are available which give students practical experience in their selected profession. Seniors are strongly encouraged to complete a “professional” experience prior to graduation. In most cases this will involve a field or laboratory research project or honors project under the direction of a faculty member. Other students will do an off-campus research internship or serve as senior laboratory assistants. For program assessment, all majors are required to take an internal assessment exam during their sophomore year and the Educational Testing Services Major Field Test during their senior year.

Messiah College is affiliated with AuSable Institute of Environmental Studies in Mancelona, Michigan. The Department encourages science students to participate in the various programs offered by the Institute near the Great Lakes in Michigan; the Pacific Northwest; and in south India. Financial assistance is available to students wishing to study at AuSable during the summer.

Departmental Honors

The purpose of Departmental Honors is to encourage scholarly initiative and in-depth investigation within a limited area of study in the student’s major. In the Department of Biological Sciences, students work under the direction of a faculty member to plan and carry out scientific research that culminates in both written and oral presentations of the project. To graduate with Departmental Honors, students must apply during the junior year and enroll in BIOL 393/CHEM 393 Research Methods, followed by five to six credits of BIOL 497, 498 Major Honors during the senior year. Obtain detailed information from your academic advisor.

Pre-Medical, Pre-Allied Health, and Pre-Physical Therapy Programs

Many students preparing for careers in health care professions choose to major in the biological sciences, where there is excellent overlap with the requirements of health care programs. For more information about the Pre-Medical, Pre-Allied Health, or Pre-Physical Therapy Programs at Messiah College, please refer to the Pre-Professional Health Programs section of this Catalog.

Biology Major

The Biology major provides a strong foundation in biology, from the molecular to the ecological level. The major includes a choice of five different concentrations:

- **Biomedical:** Preparation for graduate and professional programs in research and health (medical, dental, veterinary, physician’s assistant, optometry, etc.)
- **Cellular:** Emphasizes study of biomolecules, cellular processes, molecular genetics and biotechnology
- **Ecological:** Focuses on the interactions of organisms and their environment, and the tools to quantify those relationships
- **Organismal:** Emphasizes the study of the diversity, structure, function, and behavior of living organisms
- **General:** Provides broad exposure to all aspects of biology

The major also includes supporting courses in chemistry and mathematics. Graduates with a biology degree will be well-prepared for further studies and specialization in graduate schools, medical and

veterinary schools, and other health career programs. Students following this major are also prepared to seek immediate employment in a variety of settings requiring the skills and knowledge of a biology major.

Biology majors interested in a teaching career should follow the secondary teaching certification curriculum for biology. This highly recognized curriculum is excellent preparation for teaching biology in grades 7 to 12 and for earning Pennsylvania State Certification. Biology, chemistry, and a physics course provide a sound basis for teaching biology, and education courses provide the tools needed for teaching. The program culminates in a 12-week student teaching experience in a selected public school.

Biology (B.S.) (66-70 credits)

Note: Biology majors must have three 300/400 level lab courses **OR** two 300/400 level lab courses and one 200/300/400 BIOL course with extensive field experience (BIOL 218, 269, 290, 297). Lab courses must be BIOL courses or CHEM 410.

Core requirements (49-50 credits)

BIOL 160 Molecular and Cellular Biology (4)
BIOL 161 Animal Form and Function (3)
BIOL 162 Plant Form and Function (3)
BIOL 260 Genetics and Development (3)
BIOL 262 Ecology and Adaptation (4)
BIOL 495/CHEM 495 Capstone: Natural Sciences (3)
CHEM 105 General Chemistry I (4)
CHEM 106 General Chemistry II (4)
CHEM 309 Organic Chemistry I (4)
CHEM 310 Organic Chemistry II (4)

Three to four credits from the following:

MATH 108 Intuitive Calculus with Applications (3)
MATH 111 Calculus I (4)

Three credits from the following:

PHIL 101 History of Philosophy (3)
PHIL 102 Problems in Philosophy (3)
PHYS 201 Introductory Physics I (4)
STAT 269 Introductory Statistics (3)

One of the following concentrations, minimum of 17 credits:

Biomedical Concentration (17-18 credits)

BIOL 385 Physiology (4)

Four credits from the following:*

BIOL 381 Microbiology (4)
BIOL 382 Microbiology for Health Professions (4)

Three to four credits from the following:*

BIOL 321 Mycology (4)
BIOL 325 Medicinal Botany (3)
BIOL 332 Plant Taxonomy (4)
BIOL 334 Plant Ecology (4)
BIOL 335 Plant Propagation (3)
BIOL 356 Ornithology (4)
BIOL 358 Herpetology (4)
BIOL 362 Aquatic Zoology (4)

Five to six credits from the following:*

BIOL 218 Health Care in the Developing World (3)
BIOL 313 Developmental Biology (3)
BIOL 317 Bioethics (3)
BIOL 386 Human Anatomy (4)
BIOL 387 Neuroscience (3)
BIOL 391 Biology Practicum (1-3)

BIOL 393/CHEM 393 Research Methods (1) and one of the following:

BIOL 422/CHEM 422/NUTR 422 Senior Research (1-3)

BIOL 497 and BIOL 498 Major Honors (2-3, 2-3)

BIOL 418 Immunology (4)

CHEM 410 Biochemistry I (4)

Au Sable Institute Option: ASI 452 Environmental Health (4)

Cellular Concentration (17-20 credits)

BIOL 413 Molecular Biology (4)

Four credits from the following:*

BIOL 412 Cell Biology (4)

BIOL 417 Molecular Genetics (4)

Three to four credits from the following:*

BIOL 313 Developmental Biology (3)

BIOL 385 Physiology (4)

BIOL 418 Immunology (4)

Three to four credits from the following:*

BIOL 321 Mycology (4)

BIOL 325 Medicinal Botany (3)

BIOL 332 Plant Taxonomy (4)

BIOL 334 Plant Ecology (4)

BIOL 335 Plant Propagation (3)

BIOL 356 Ornithology (4)

BIOL 358 Herpetology (4)

BIOL 362 Aquatic Zoology (4)

One to four credits from the following:*

BIOL 313 Developmental Biology (3)

BIOL 381 Microbiology (4)

BIOL 382 Microbiology for Health Professions (4)

BIOL 385 Physiology (4)

BIOL 387 Neuroscience (3)

BIOL 391 Biology Practicum (1-3)

BIOL 393/CHEM 393 Research Methods (1) and one of the following:

BIOL 422/CHEM 422/NUTR 422 Senior Research (1-3)

BIOL 497 and BIOL 498 Major Honors (2-3, 2-3)

BIOL 412 Cell Biology (4)

BIOL 417 Molecular Genetics (4)

BIOL 418 Immunology (4)

CHEM 410 Biochemistry I (4)

Au Sable Institute: ASI 360 Molecular Tools for the Field Biologist (4)

Ecological Concentration (17-18 credits)

Four credits from the following:*

BIOL 381 Microbiology (4)

BIOL 382 Microbiology for Health Professions (4)

Three credits from the following:*

BIOL 313 Developmental Biology (3)

BIOL 348 Animal Behavior (3)

Four credits from the following:*

BIOL 321 Mycology (4)

BIOL 332 Plant Taxonomy (4)

BIOL 356 Ornithology (4)

BIOL 358 Herpetology (4)

BIOL 362 Aquatic Zoology (4)

Three credits from the following:*

BIOL 269 Ecology of Florida (3)

BIOL 290 Topics in Field Biology (3)

BIOL 297 Tropical Biology- Latin America (3)

Three to four credits from the following:*

BIOL 271 Ecological Field Techniques (2)

BIOL 274 Environmental Science (3)

BIOL 334 Plant Ecology (4)

BIOL 391 Biology Practicum (1-3)

BIOL 393/CHEM 393 Research Methods (1) and one of the following:

BIOL 422/CHEM 422/NUTR 422 Senior Research (1-3)

BIOL 497 and BIOL 498 Major Honors (2-3, 2-3)

BIOL 413 Molecular Biology (4)

Au Sable Institute Options:

ASI 302 Lake Ecology and Management (4)

ASI 318 Marine Biology (4)

ASI 321 Animal Ecology (4)

ASI 345 Wildlife Ecology (4)

ASI 355 Watershed Stewardship (4)

ASI 359 Marine Mammals (4)

ASI 360 Molecular Tools for the Field Biologist (4)

ASI 427 Ecology of the Indian Tropics (4)

ASI 471 Conservation Biology (4)

ASI 478 Alpine Ecology (4)

ASI 482 Restoration Ecology (4)

General Concentration (17-19 credits)

Four credits from the following:*

BIOL 381 Microbiology (4)

BIOL 382 Microbiology for Health Professions (4)

BIOL 412 Cell Biology (4)

BIOL 413 Molecular Biology (4)

Three to four credits from the following:*

BIOL 313 Developmental Biology (3)

BIOL 348 Animal Behavior (3)

BIOL 385 Physiology (4)

BIOL 387 Neuroscience (3)

BIOL 418 Immunology (4)

Three to four credits from the following:*

BIOL 321 Mycology (4)

BIOL 325 Medicinal Botany (3)

BIOL 332 Plant Taxonomy (4)

BIOL 334 Plant Ecology (4)

BIOL 335 Plant Propagation (3)

Five to seven credits from the following:*

BIOL 218 Health Care in the Developing World (3)

BIOL 269 Ecology of Florida (3)

BIOL 271 Ecological Field Techniques (2)

BIOL 274 Environmental Science (3)

BIOL 290 Topics in Field Biology (3)

BIOL 297 Tropical Biology: Latin America (3)

Any BIOL 300/400 level course approved for biology majors, excluding BIOL 495

BIOL 391 Biology Practicum (1-3)

BIOL 393/CHEM 393 Research Methods (1) and one of the following:

BIOL 422/CHEM 422/NUTR 422 Senior Research (1-3)

BIOL 497 and BIOL 498 Major Honors (2-3, 2-3)

CHEM 410 Biochemistry I (4)

Au Sable Institute Options:

ASI 302 Lake Ecology and Management (4)

ASI 318 Marine Biology (4)

ASI 321 Animal Ecology (4)

ASI 345 Wildlife Ecology (4)

ASI 359 Marine Mammals (4)

ASI 360 Molecular Tools for the Field Biologist (4)

ASI 427 Ecology of the Indian Tropics (4)
ASI 471 Conservation Biology (4)
ASI 478 Alpine Ecology (4)
ASI 482 Restoration Ecology (4)

Organismal Concentration (17-20 credits)

Four credits from the following:*

BIOL 381 Microbiology (4)
BIOL 382 Microbiology for Health Professions (4)

Three to four credits from the following:*

BIOL 313 Developmental Biology (3)
BIOL 348 Animal Behavior (3)
BIOL 385 Physiology (4)

Four credits from the following:*

BIOL 356 Ornithology (4)
BIOL 358 Herpetology (4)
BIOL 362 Aquatic Zoology (4)

Four credits from the following:*

BIOL 321 Mycology (4)
BIOL 332 Plant Taxonomy (4)

One to four credits from the following:*

BIOL 269 Ecology of Florida (3)
BIOL 290 Topics in Field Biology (3)
BIOL 297 Tropical Biology- Latin America (3)
BIOL 313 Developmental Biology (3)
BIOL 334 Plant Ecology (4)
BIOL 348 Animal Behavior (3)
BIOL 385 Physiology (4)
BIOL 391 Biology Practicum (1-3)
BIOL 393/CHEM 393 Research Methods (1) and one of the following:

BIOL 422/CHEM 422/NUTR 422 Senior Research (1-3)
BIOL 497 and BIOL 498 Major Honors (2-3, 2-3)

BIOL 413 Molecular Biology (4)

Au Sable Institute Options:

ASI 318 Marine Biology (4)
ASI 321 Animal Ecology (4)
ASI 345 Wildlife Ecology (4)
ASI 359 Marine Mammals (4)
ASI 360 Molecular Tools for the Field Biologist (4)

Biology with Secondary Teaching Certification (B.S.)

(95-98 credits)

BIOL 160 Molecular and Cellular Biology (4)
BIOL 161 Animal Form and Function (3)
BIOL 162 Plant Form and Function (3)
BIOL 260 Genetics and Development (3)
BIOL 262 Ecology and Adaptation (4)

Three to four credits from the following (Integrative Biology):

BIOL 313 Developmental Biology (3)
BIOL 385 Physiology (4)
BIOL 386 Human Anatomy (4)
BIOL 387 Neuroscience (3)
BIOL 418 Immunology (4)

Four credits from the following (Cellular Biology):

BIOL 382 Microbiology for Health Professions (4)
BIOL 412 Cell Biology (4)
BIOL 413 Molecular Biology (4)
CHEM 410 Biochemistry I (4)

Three to four credits from the following (Plant Biology):

BIOL 321 Mycology (4)
BIOL 325 Medicinal Botany (3)
BIOL 332 Plant Taxonomy (4)

BIOL 334 Plant Ecology (4)
BIOL 335 Plant Propagation (3)
BIOL 495/CHEM 495 Capstone: Natural Sciences (3)
CHEM 105 General Chemistry I (4)
CHEM 106 General Chemistry II (4)
CHEM 204 Introduction to Organic Chemistry (4)
ESS 201 Earth and Space Science (3)
EDSP 207 Introduction to Special Education (3)
EDSP 307 Inclusion Practices (3)
EDUC 201 Education and American Society (3)
EDUC 203 Educational Psychology (3)
EDUC 208 Teaching English Language Learners in K-12 Schools
EDUC 331 Instructional Design and Assessment (3)
ENGL 122-176 Literature meeting QuEST (3)

Three to four credits from the following:

MATH 108 Intuitive Calculus with Applications (3)
MATH 111 Calculus I (4)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)
PHIL 102 History of Philosophy (3)
PHYS 201 Introductory Physics I (4)
STAT 269 Introductory Statistics (3)
TEP 210 Sophomore Field Experience (0)
TEP 310 Junior Field Experience (0)
TEP 410 Secondary Pre-Student Teaching Experience (0)

Professional Semester:

BIOL 407/CHEM 407 Secondary Science Curriculum and Instruction (2)

EDUC 420 Professional Issues in Education (2)

PSYC 311/HDFS 311 Adolescent Development (3)

TEP 435 Student Teaching: Secondary (9)

Biology Minor (20 credits)

BIOL 160 Molecular and Cellular Biology (4)

BIOL 161 Animal Form and Function (3)

BIOL 162 Plant Form and Function (3)

Ten credits of BIOL courses approved for the Biology Major*

*Requires prerequisite(s), may increase the total credits required.

Biology Minor for Environmental Science Majors (18 credits)

Three to four credits from the following (Integrative Biology):

BIOL 313 Developmental Biology* (3)
BIOL 385 Physiology* (4)
BIOL 386 Human Anatomy* (4)
BIOL 387 Neuroscience* (3)
BIOL 418 Immunology* (4)

Four credits from the following the following (Cellular Biology):

BIOL 382 Microbiology for Health Professions* (4)
BIOL 412 Cell Biology* (4)
BIOL 413 Molecular Biology* (4)
CHEM 410 Biochemistry I* (4)

*Two to four credits of BIOL (or other) courses approved for the Biology Major**

*Requires prerequisite(s), may increase the total credits required.

Molecular Biology Major

The Molecular Biology Major integrates studies in biology and chemistry for a strong foundation in the structure and function of macromolecules and an understanding of fundamental molecular processes of life. A common core of foundational courses from the traditional disciplines of chemistry and biology prepares the student for advanced coursework. Supporting courses in mathematics and

physics are included in the major. Laboratory components common to most of the courses will provide opportunities to manipulate and analyze genes and their protein products. Computers and specialized software allow the student to visualize complex molecular structures such as proteins and DNA or to simulate experiments to compare with results obtained in the laboratory.

The Molecular Biology Major emphasizes the study of genes and how their products control and organize living systems (single cells to whole organisms) and allow organisms to adapt to their environment. The structure and function of informational, enzymatic and structural macromolecules will be studied with respect to how genes are regulated and how their products catalyze and control metabolic processes needed to sustain life. Students completing this major will be well prepared to continue their education in graduate programs or medical school, or to seek immediate employment in a variety of settings.

Molecular Biology (B.S.) (68-71 credits)

BIOL 160 Molecular and Cellular Biology (4)
BIOL 161 Animal Form and Function (3)
BIOL 162 Plant Form and Function (3)
BIOL 260 Genetics and Development (3)
BIOL 412 Cell Biology (4)
BIOL 413 Molecular Biology (4)
BIOL 417 Molecular Genetics (4)
BIOL 495/CHEM 495 Capstone: Natural Sciences (3)

Six to eight credits from the following:

BIOL 262 Ecology and Adaptation (4)
BIOL 313 Developmental Biology (3)
BIOL 321 Mycology (4)
BIOL 325 Medicinal Botany (3)
BIOL 332 Plant Taxonomy (4)
BIOL 348 Animal Behavior (3)
BIOL 356 Ornithology (4)
BIOL 358 Herpetology (4)
BIOL 381 Microbiology (4)
BIOL 382 Microbiology for Health Professions (4)
BIOL 385 Physiology (4)
BIOL 386 Human Anatomy (4)
BIOL 387 Neuroscience (3)
BIOL 418 Immunology (4)
BIOL 422/CHEM 422/NUTR 422 Senior Research (2-3)
CHEM 221 Chemical Analysis I (4)
CHEM 321 Chemical Analysis II (4)
CHEM 409 Advanced Organic Chemistry (3)
CHEM 437 Physical Chemistry I (3.5)
PHYS 202 Intro Physics II or PHYS 212 General Physics II (4)

CHEM 105 General Chemistry I (4)
CHEM 106 General Chemistry II (4)
CHEM 309 Organic Chemistry I (4)
CHEM 310 Organic Chemistry II (4)
CHEM 410 Biochemistry I (4)
CHEM 412 Biochemistry II (4)

Three to four credits from the following:

MATH 108 Intuitive Calculus with Applications (3)
MATH 111 Calculus I (4)

Four credits from the following (4):

PHYS 201 Introductory Physics I (4)
PHYS 211 General Physics I (4)
STAT 269 Introductory Statistics (3)

Environmental Science

The environmental science curriculum provides a strong background for students planning a career in the environmental field. It is the recommended major for students who will enter graduate programs in such fields as ecology, environmental science, environmental law, environmental public policy, regional planning, landscape architecture, conservation biology, & the marine sciences.

It also provides an excellent background for those planning to directly enter the rapidly expanding environmental job market after college. Environmental science is an interdisciplinary curriculum drawing heavily from biology and chemistry with important contributions also from ethics, theology, economics, and mathematics.

The recommended first-year curriculum for the environmental science major is identical to the biology major in order to provide maximum flexibility for students. An important feature included in the environmental science curriculum is the encouraged participation at AuSable Institute of Environmental Studies, located in northern Michigan. Information on the AuSable program is available from the Department Office or your environmental science advisor.

Environmental Science (B.S.) (70-71 credits)

BIOL 160 Molecular and Cellular Biology (4)
BIOL 161 Animal Form and Function (3)
BIOL 162 Plant Form and Function (3)
BIOL 260 Genetics and Development (3)
BIOL 262 Ecology and Adaptation (4)
BIOL 271 Ecological Field Techniques (2)
BIOL 274 Environmental Science (3)
BIOL 315 Environmental Ethics (3)

Four credits from the following:

BIOL 321 Mycology (4)
BIOL 332 Plant Taxonomy (4)

Four credits from the following (4):

BIOL 356 Ornithology (4)
BIOL 358 Herpetology (4)

Three credits from the following:

BIOL 495 Capstone: Natural Sciences (3)
SUST 495 Capstone: Sustainability Studies (3)

CHEM 105 General Chemistry I (4)
CHEM 106 General Chemistry II (4)
CHEM 204 Introduction to Organic Chemistry (4)*
CHEM 240 Environmental Chemistry (4)*

*Six credits from the following: ***

BIOL 269 Ecology of Florida (3)
BIOL 290 Topics in Field Biology (3)
BIOL 297 Tropical Biology (3)
BIOL 321 Mycology (4)
BIOL 332 Plant Taxonomy (4)
BIOL 334 Plant Ecology (4)
BIOL 335 Plant Propagation (4)
BIOL 348 Animal Behavior (3)
BIOL 356 Ornithology (4)
BIOL 358 Herpetology (4)
BIOL 362 Aquatic Zoology (3-4)
BIOL 381 or BIOL 382 Microbiology (4)
BIOL 391 Biology Practicum (1-3)
IDCC 260 Cultures and Ecosystems of Malaysia and Borneo (3)
GIS 245 Introduction to Geographical Information Systems (3)

Three to four credits from the following:

MATH 108 Intuitive Calculus with Applications (3)

MATH 111 Calculus I (4)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

STAT 269 Introductory Statistics (3)

*All Environmental Science Majors must take CHEM 204 and CHEM 240. Those students intending to enter graduate school and whose work will involve a significant amount of chemical emphasis should substitute CHEM 309, 310 for CHEM 204.

**All Environmental Science Majors are encouraged to complete one course at AuSable Institute. AuSable courses can count only as elective credit. Majors are also encouraged to do an internship and/or research experience.

Environmental Science Minor (20–21 credits)

BIOL 160 Molecular and Cellular Biology (4)

BIOL 161 Animal Form and Function (3)

BIOL 162 Plant Form and Function (3)

BIOL 262 Ecology and Adaptation (4)

BIOL 274 Environmental Science (3)

Three to four credits of BIOL (or other) courses approved for the Environmental Science Major*

Environmental Science Minor for Biology Majors (18 credits)

BIOL 271 Ecological Field Techniques* (2)

BIOL 274 Environmental Science* (3)

Four credits from the following:

BIOL 321 Mycology* (4)

BIOL 332 Plant Taxonomy* (4)

Four credits from the following:

BIOL 356 Ornithology* (4)

BIOL 358 Herpetology* (4)

BIOL xxx (or other) courses approved for the Environmental Science Major (5)*

*Requires prerequisite(s), may increase the total credits required.

AuSable

Messiah College has a formal affiliation with AuSable Institute of Environmental Studies; it functions as Messiah College's field station. Students pay Messiah's tuition rate. Each year between 10 and 20 Messiah students participate in AuSable courses. Students seeking more information should consult the AuSable Catalog or their web page at www.AuSable.org.

Alpine Ecology	Animal Ecology
Conservation Biology	Ecological Agriculture
Ecology of the Indian Tropics	Environmental Chemistry
Environmental Applications of GIS	Environmental Health
International Development & Environmental Sustainability	
Lake Ecology & Management	Land Resources
Marine Biology	Marine Mammals
Molecular Tools for the Field Biologist	
Restoration Ecology	Tropical Ag & Missions
Watersheds Global Development	Wildlife Ecology

CHEMISTRY and BIOCHEMISTRY

Department Chair: Roseann K. Sachs

Administrative Assistant: Cynthia Steffan

Professors: A. Reeve, R. Sachs, R. Schaeffer

Associate Professor: A. Noble

Assistant Professor: J. Kleingardner

Senior Lecturer: J. Melton, J. Noble

Majors and Minors

The Department of Chemistry and Biochemistry offers the following majors:

Biochemistry (B.A.), (B.S.), or (B.S.) ACS Certified

Biochemistry (B.A.)/Doctor of Pharmacy (PharmD) University of the Sciences in Philadelphia

Chemistry (B.A.), (B.S.), or (B.S.) ACS Certified

Chemistry with Secondary Teaching Certification (B.A.)

The Department of Chemistry and Biochemistry offers American Chemical Society Certified Degrees in both Chemistry and Biochemistry.

The Department of Chemistry and Biochemistry offers a minor in Chemistry.

Many students preparing for careers in health care professions choose to major in Chemistry or Biochemistry. For more information about the Pre-Medical or Pre-Allied Health Programs at Messiah College, please refer to the Pre-Health Programs section of this catalog.

Program Options

The Department of Chemistry and Biochemistry seeks to provide students with an understanding of the chemical sciences that will enable them to continue study in graduate school, medical school, the allied health field, or immediately enter a profession in teaching or in the chemical or pharmaceutical industry. A major in chemistry or biochemistry is ideal for students who thrive with a problem-solving approach to learning and doing science. The Department is approved by the American Chemical Society, a recognition of excellence in chemical education. The unique advantage of studying chemistry at Messiah is that students work in the context of a Christian liberal arts education. Thus, while investigating the world around them, they also study themselves and their Creator. The Department places special emphasis on integrating the knowledge and methods of the sciences with what Christian faith teaches about people and their place in the universe.

Messiah College has outstanding facilities for the study of chemistry and biochemistry. The Jordan Science Center together with the Kline Hall of Science offers well-equipped laboratories, research facilities, and much instrumentation including a 400 MHz NMR, FT-IR, GC-MS, HPLC, AA, XRD, IC and several computational chemistry workstations.

Chemistry and Biochemistry majors are encouraged to take advantage of research opportunities available to them at the College. Involvement in a research project allows a student to apply the theory and skills that have been learned in earlier courses to the exploration of something new. These opportunities are available to students at all levels of one's college career. Research is often the highlight of a student's academic work, and a fundamental step towards that first

job. All majors are required to take the Educational Testing Service's Major Field Test during their senior year.

Biochemistry Major

The Biochemistry Major emphasizes a molecular understanding of biological processes. A fascination with atomic and molecular structure and function, as it controls the processes of life itself, is a sure indication that this major may be the one for you. Courses in this major explore the structure and function of nucleic acids, proteins, lipids, and carbohydrates, and how these molecules mediate chemical processes in the cell. In addition, biochemistry majors will learn both qualitative and quantitative methodologies needed to fully probe how molecular structure causes changes in biological processes. A thorough understanding of the biology of microorganisms, the application of both classical and modern genetics to living systems, and the transformation of molecular information in biological systems completes this major.

This major provides considerable versatility to a student, who will be well qualified to work in any area of biochemistry, molecular biology, or biotechnology. In addition, the hands-on use of analytical instrumentation throughout this program will allow a student to easily succeed in a career in chemical analysis. These positions are abundant for Bachelor's level scientists and include applications in environmental chemistry and forensic science. Furthermore, this major is well suited for students planning to pursue medical school or an allied health profession. Finally, the Biochemistry major is outstanding preparation for a student planning to attend graduate school in biochemistry or molecular biology, as well as in interdisciplinary areas such as biophysics, neuroscience, genetics, cell biology and immunology.

Biochemistry (B.S.) American Chemical Society (ACS) Certified (75.5-79.5 credits)

BIOL 160 Molecular and Cellular Biology (4)

BIOL 260 Genetics and Development (3)

BIOL 413 Molecular Biology (4)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

CHEM 221 Chemical Analysis I (4)

CHEM 309 Organic Chemistry I (4)

CHEM 310 Organic Chemistry II (4)

CHEM 321 Chemical Analysis II (4)

CHEM 361 Inorganic Chemistry (4)

CHEM 390 Junior Chemistry Seminar (1)

CHEM 393 Research Methods (1)

CHEM 410 Biochemistry I (4)

CHEM 412 Biochemistry II (4)

CHEM 437 Physical Chemistry I (3.5)

Three to four credits from the following:

CHEM 342 Advanced Synthesis & Spectroscopy (3)

CHEM 360 Topics in Chemistry (3-4)

CHEM 409 Advanced Organic Chemistry (3)

CHEM 438 Physical Chemistry II (3.5)

Zero to three credits from the following:

CHEM 222 Independent Research (1-3)

CHEM 322 Independent Research (1-3)

CHEM 422 Senior Research (1-3)

CHEM 497, 498 Major Honors (2-8)

Summer Research (0)

CHEM 490 Senior Chemistry Seminar (1)

CHEM 495 Capstone: Natural Sciences (3)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

Recommended, but not required: One of the following:

BIOL 381 Microbiology (4)

BIOL 382 Microbiology for Health Professions (4)

BIOL 412 Cell Biology (4)

BIOL 417 Molecular Genetics (4)

Biochemistry (B.S.) (67.5 credits)

BIOL 160 Molecular and Cellular Biology (4)

BIOL 260 Genetics and Development (3)

BIOL 413 Molecular Biology (4)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

CHEM 221 Chemical Analysis I (4)

CHEM 309 Organic Chemistry I (4)

CHEM 310 Organic Chemistry II (4)

CHEM 321 Chemical Analysis II (4)

CHEM 390 Junior Chemistry Seminar (1)

CHEM 410 Biochemistry I (4)

CHEM 412 Biochemistry II (4)

CHEM 437 Physical Chemistry I (3.5)

CHEM 490 Senior Chemistry Seminar (1)

CHEM 495/BIOL 495 Capstone: Natural Sciences (3)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

Biochemistry (B.A.) (61-64.5 credits)

BIOL 160 Molecular and Cellular Biology (4)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

CHEM 221 Chemical Analysis I (4)

CHEM 309 Organic Chemistry I (4)

CHEM 310 Organic Chemistry II (4)

CHEM 390 Junior Chemistry Seminar (1)

CHEM 410 Biochemistry I (4)

CHEM 412 Biochemistry II (4)

CHEM 490 Senior Chemistry Seminar (1)

At least three credits from the following:

CHEM 409 Advanced Organic Chemistry (3)

CHEM 437 Physical Chemistry I (3.5)

CHEM 495/BIOL 495 Capstone: Natural Sciences (3)

MATH 111 Calculus I (4)

Three to four credits from the following:

MATH 112 Calculus II (4)

STAT 269 Introductory Statistics (3)

STAT 291 Statistical Methods for Mathematical Sciences I (3)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

One set of the following:

- PHYS 201 and PHYS 202 Introductory Physics I and II (8)
- PHYS 211 and PHYS 212 General Physics I and II (8)

Six to eight credits from the following:

- APHS 215 Chronic Disease and Exercise (3)
- APHS 301 Exercise Physiology (4)
- APHS 415 Advanced Exercise Physiology (3)
- BIOL 260 Genetics and Development (3)
- BIOL 325 Medicinal Botany (3)
- BIOL 381 Microbiology (4)
- BIOL 382 Microbiology for Health Professions (4)
- BIOL 385 Physiology (4)
- BIOL 386 Human Anatomy (4)
- BIOL 387 Neuroscience (3)
- BIOL 412 Cell Biology (4)
- BIOL 413 Molecular Biology (4)
- BIOL 417 Molecular Genetics
- BIOL 418 Immunology (4)
- CHEM 321 Chemical Analysis II (4)
- NUTR 222 Nutrition Theory (3)
- NUTR 322 Nutrition through the Life Cycle (3)

Biochemistry (B.A.)/Doctor of Pharmacy (PharmD) University of the Sciences in Philadelphia. Contact the Department Chair for more information about this program.

Chemistry Major

With many sciences such as ecology, medicine, material science, and food science turning increasingly to chemistry for explanations and understanding of their disciplines, an undergraduate major in chemistry is good preparation for a variety of careers. The Chemistry Major curriculum includes courses in general chemistry, organic chemistry, chemical analysis, physical, and inorganic chemistry, and offers a variety of electives making it possible to tailor the program to the individual's interests and needs. Students not only learn the theory of instrumentation used in chemical research, but have hands-on experiences in the laboratory in which they become familiar with these techniques.

This experience allows graduates to be quite competitive for jobs in the pharmaceutical and chemical industries, environmental and forensic science labs, as well as government laboratories. This major is well suited for students planning to attend graduate school in any area of chemistry, or pursue a career in medical school or another allied health profession.

For students interested in teaching chemistry in grades seven to twelve, the chemistry secondary teaching curriculum should be followed. Upon successful completion of this program and a 12-week student teaching experience, students receive certification by the Pennsylvania Department of Education.

Chemistry (B.S.) American Chemical Society (ACS) Certified (70-74 credits)

- CHEM 105 General Chemistry I (4)
- CHEM 106 General Chemistry II (4)
- CHEM 221 Chemical Analysis I (4)
- CHEM 309 Organic Chemistry I (4)
- CHEM 310 Organic Chemistry II (4)
- CHEM 321 Chemical Analysis II (4)
- CHEM 342 Advanced Synthesis and Spectroscopy (3)
- CHEM 361 Inorganic Chemistry (4)

- CHEM 390 Junior Chemistry Seminar (1)
- CHEM 410 Biochemistry I (4)
- CHEM 437 Physical Chemistry I (3.5)
- CHEM 438 Physical Chemistry II (3.5)
- CHEM 490 Senior Chemistry Seminar (1)
- CHEM 393 Research Methods (1)
- CHEM 495 Capstone: Natural Sciences (3)

Zero to three credits from the following (0):

- CHEM 222 Independent Research (1-3)
- CHEM 322 Independent Research (1-3)
- CHEM 422 Senior Research (1-3)
- CHEM 497, 498 Major Honors (2-8)
- Summer Research (0)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

Three or four credits of the following (3-4):

- MATH 211 Calculus III (4)
- MATH 270 Linear and Differential Methods (3)

Three credits from the following (3):

- PHIL 101 Problems in Philosophy (3)
- PHIL 102 History of Philosophy (3)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

Chemistry (B.S.) (68-69 credits)

- CHEM 105 General Chemistry I (4)
- CHEM 106 General Chemistry II (4)
- CHEM 221 Chemical Analysis I (4)
- CHEM 309 Organic Chemistry I (4)
- CHEM 310 Organic Chemistry II (4)
- CHEM 321 Chemical Analysis II (4)
- CHEM 342 Advanced Synthesis and Spectroscopy (3)
- CHEM 361 Inorganic Chemistry (4)
- CHEM 390 Junior Chemistry Seminar (1)
- CHEM 437 Physical Chemistry I (3.5)
- CHEM 438 Physical Chemistry II (3.5)
- CHEM 490 Senior Chemistry Seminar (1)
- CHEM 495/BIOL 495 Capstone: Natural Sciences (3)
- CHEM xxx Chemistry elective (3)*
- MATH 111 Calculus I (4)
- MATH 112 Calculus II (4)

Three or four credits of the following:

- MATH 211 Calculus III (4)
- MATH 270 Linear and Differential Methods (3)

Three credits from the following:

- PHIL 101 Problems in Philosophy (3)
- PHIL 102 History of Philosophy (3)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

*Approved Chemistry electives include any Chemistry course at the 200-level or above, excluding CHEM 391.

Chemistry (B.A.) (57.5-59.5 Credits)

- CHEM 105 General Chemistry I (4)
- CHEM 106 General Chemistry II (4)
- CHEM 221 Chemical Analysis I (4)
- CHEM 309 Organic Chemistry I (4)
- CHEM 310 Organic Chemistry II (4)
- CHEM 390 Junior Chemistry Seminar (1)
- CHEM 437 Physical Chemistry I (3.5)
- CHEM 490 Senior Chemistry Seminar (1)
- CHEM xxx Chemistry electives (10-12)*
- CHEM 495/BIOL 495 Capstone: Natural Sciences (3)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

*Approved Chemistry electives include any Chemistry course at the 200-level or above, excluding CHEM 391.

Chemistry with Secondary Teaching Certification (B.A.)

(96.5-98.5 credits)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

CHEM 221 Chemical Analysis I (4)

CHEM 309 Organic Chemistry I (4)

CHEM 310 Organic Chemistry II (4)

CHEM 390 Junior Chemistry Seminar (1)

CHEM 437 Physical Chemistry I (3.5)

CHEM 495/BIOL 495 Capstone: Natural Sciences (3)

CHEM xxx Chemistry electives* (10-12)

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC 203 Educational Psychology (3)

EDUC 308 Teaching English Language Learners in K-12 Schools(3)

EDUC 331 Instructional Design and Assess. for Middle & Sec. (3)

ENGL 122-176 Literature meeting QuEST (3)

ESS 201 Earth and Space Science (3)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

TEP 210 Sophomore Field Experience (0)

TEP 310 Junior Field Experience (0)

TEP 410 Secondary Pre-Student Teaching Experience (0)

Professional Semester:

CHEM 407/BIOL 407 Secondary Science Curriculum & Instr. (2)

EDUC 420 Professional Issues in Education (2)

PSYC 311/HDFS 311 Adolescent Development (3)

TEP 435 Student Teaching: Secondary (9)

*Approved Chemistry electives include any Chemistry course at the 200-level or above, excluding CHEM 391.

The QuEST Non-Western requirement will be waived for students taking Global Christian Theology (THEO 223) as their Christian Beliefs course. (See Teacher Education Program for specific policies).

Chemistry Minor (23-24 credits)

CHEM 105 General Chemistry I (4)

CHEM 106 General Chemistry II (4)

CHEM 309 Organic Chemistry I (4)

CHEM 310 Organic Chemistry II (4)

CHEM xxx Courses approved for the Chemistry major* (7-8)

Note: CHEM 410 and 412 cannot be counted in the Biology Major or Molecular Biology Major and the Chemistry Minor. CHEM 240 cannot be counted in both the Environmental Science Major and the Chemistry Minor. CHEM 495 cannot count toward a Chemistry minor.

*Requires prerequisite(s), may increase the total credits required.

COMPUTER and INFORMATION SCIENCE

Department Chair: Scott Weaver

Administrative Assistant: Jean McCauslin

Professors: B. Nejme, E. Rohrbaugh

Associate Professors: R. Kilmer, D. Owen, S. Weaver

Majors and Minors

The Department of Information and Mathematical Sciences offers the following majors:

Computer and Information Science (B.S.) *with concentrations in*
Business Information Systems

Computer Science

Software Development

Web Management

Digital Media (B.A.), Mobile Application and Game Design
concentration (See Interdisciplinary Majors and Minors)

The Department of Computer and Information Science offers minors in Business Information Systems and in Computer Science.

Computer and Information Science

Majors are introduced to the broad discipline of Computer and Information Science as they develop foundational competencies through a series of core courses. To complete their major, students select one or more of the following concentrations: Business Information Systems, Computer Science, Software Development, and Web Management. Students have opportunities to participate in programming competitions, service learning, summer research experiences, and professional internships.

Computer and Information Science (B.S.) (58-63 credits)

Core requirements (25 credits)

CIS 180 Introduction to Computer and Information Science (3)

CIS 181 Computer Programming I (3)

CIS 332 Database Concepts (3)

CIS 381 Information Systems and Managers (3)

CIS 411 Systems Analysis and Design Concepts (3)

CIS 412 Systems Analysis and Design Applications (3)

CIS 432 Database Applications (3)

Four credits from the following (Junior/Senior year):

INTE 394 Internship (4-12 credits)

INTE 391 Internship (1-3 credits)

One of the following concentrations:

Business Information Systems concentration (36 credits)

ACCT 141 Financial Accounting (3)

BUSA 120 Principles of Management (3)

Three credits from the following:

BUSA 360 Operations Management (3)

BUSA 380 Small Business Development (3)

BUSA 381 Business Law I: Legal Foundation for Business (3)

CIS 190 Strategic Use of Information Technology (3)

Three credits from the following:

CIS 283 Business Systems Applications (3)

CIS 284 Computer Programming II (3)

CIS 291 Web Development II: Server Side (3)

Nine credits from the following:

CIS xxx electives*, excluding CIS 171

GIS 245 Geographic Information Systems

Three credits from the following:

- ECON 110 Economics of Social Issues (3)
- ECON 120 Principles of Macroeconomics (3)

Three credits from the following:

- MATH 107 Applied Math for Management (3)
- MATH 180 Discrete Mathematics (3)

MRKT 130 Marketing Principles (3)

STAT 281 Applied Statistics for Management (3)

*CIS 102 Competitive programming may be used for a maximum of 3 of the 9 credits.

Computer Science concentration (36-38 credits)

CIS 284 Computer Programming II (3)

CIS 384 Elements of Computing Systems (3)

CIS 385 Data Structures and Algorithms (3)

CIS 416 Operating Systems and Computer Architecture (3)

CIS 482 Organization of Programming Languages (3)

Three credits from the following:

- CIS 315 Introduction to Mobile App Design (3)**
- CIS 335 Software Engineering (3)
- CIS 401 Webmasters and Servers (3)**
- CIS 415 Data Communications and Networking (3)
- CIS 418 Artificial Intelligence (3)
- CIS 487 Interactive 3D Graphics (3)

ENGR 342 Embedded Systems Design (4)

MATH 111 Calculus I (4)

MATH 180 Discrete Math (3)

Three to four credits from the following:

- MATH 211 Calculus III (4)**
- MATH 261 Linear Algebra (3)
- STAT 291 Statistics for Math Sciences I (3)

Four credits from the following:

- PHYS 201 Introductory Physics I (4)
- PHYS 202 Introductory Physics II (4) (recommended)
- PHYS 211 General Physics I (4)
- PHYS 212 General Physics II (4)

Software Development concentration (33-34 credits)

CIS 191 Web Development I: Client Side (3)

CIS 283 Business Systems Applications (3)

CIS 284 Computer Programming II (3)

CIS 291 Web Development II: Server Side (3)

CIS 335 Software Engineering (3)

CIS 385 Data Structures and Algorithms (3)

CIS 482 Organization of Programming Languages (3)

MATH 180 Discrete Math (3)

Three credits from the following:

- CIS 251 Hardware and Software (3)
- CIS 384 Elements of Computing Systems (3)

Three credits from the following:

- CIS 315 Introduction to Mobile Application Design (3)
- CIS 401 Webmasters and Servers (3)
- CIS 415 Data Communications and Networking (3)
- CIS 416 Operating Systems and Comp. Architecture (3)**
- CIS 418 Artificial Intelligence (3)
- CIS 487 Interactive 3D Graphics (3)

Three to four credits from the following:

- MATH 111 Calculus I (4)
- STAT 269 Introductory Statistics (3)
- STAT 281 Applied Statistics for Management (3)

**Courses require prerequisites which may increase the size of the major.

Web Management concentration (33 credits)

Six credits from the following:

ART 112 Introduction to Graphic Design Problem Solving (3)

ART 237 Typography and Visual Communication (3)

ART 336 Design for New Media (3)

ART 337 Graphic Design & Professional Practice (3)

BUSA 120 Principles of Management (3)

BUSA 380 Small Business Development (3)

CIS 191 Web Development I: Client Side (3)

CIS 283 Business Systems Applications (3)

Three credits from the following:

CIS 284 Programming II (3)

CIS 287 Introduction to Game Design (3)

CIS 315 Introduction to Mobile Application Design (3)

CIS 291 Web Development II: Server Side (3)

CIS 343 E-Commerce (3)

CIS 401 Webmasters and Servers (3)

MRKT 130 Marketing Principles (3)

Business Information Systems Minor (18 credits)

CIS 181 Computer Programming I (3)

CIS 190 Strategic Use of Info. Technology (3)

CIS 381 Information Systems and Managers (3)

Six credits from the following:

CIS 251 Hardware and Software (3)

CIS 283 Business Systems Applications (3)

CIS 343 Introduction to E-Commerce (3)

Three credits from the following:

- BUSA 120 Principles of Management (3)
- MRKT 130 Marketing Principles (3)

Computer Science Minor (18 credits)

CIS 180 Introduction to CIS (3)

CIS 181 Computer Programming I (3)

CIS 284 Computer Programming II (3)

CIS 385 Data Structures and Algorithms (3)

Six credits from the following:

CIS 287 Introduction to Game Design (3)

CIS 332 Database Concepts (3)

CIS 384 Elements of Computing Systems (3)

CIS 415 Data Communications and Networking (3)

CIS 418 Artificial Intelligence (3)

CIS 482 Organization of Programming Languages (3)

CIS 487 Interactive 3D Graphics (3)

CIS 315 Intro to Mobile Application & Game Design (3)*

CIS 335 Software Engineering (3)*

CIS 416 Operating Systems and Computer Architecture (3)*

CIS 432 Database Applications (3)*

*Requires prerequisite(s), may increase the total credits required.

ENGINEERING

Department Chair:	Brian D. Swartz
Assistant Chair:	Randall K. Fish
Administrative Assistant:	Jean McCauslin
Professors:	R. Fish, D. Pratt, T. Soerens, D. Vader
Associate Professors:	B. Swartz, H. Underwood, T. VanDyke
Assistant Professors:	E. Farrar, T. Yacob
Senior Lecturers:	S. Heisey, M. Lockwood

Major

The Department of Engineering offers the following concentrations within the Engineering (B.S.E.) major:

Biomedical	Civil
Computer	Electrical
Environmental	Mechanical

Mission

Graduates of the Engineering Program will be technically **competent** and broadly **educated**, prepared for interdisciplinary work in the global workplace. The character and conduct of Messiah engineering graduates will be **consistent** with Christian faith commitments. We accomplish this mission through engineering instruction and experiences, an education in the liberal arts tradition and mentoring relationships with students.

Program Educational Objectives

- Graduates will be successful in engineering practice or other diverse fields that require analytical and/or professional skills
 - Graduates will contribute to their fields or professions and society
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Student Outcomes

Prior to graduation Messiah College Engineering students will demonstrate the ability to:

- a) Apply mathematics, science and engineering principles to real world engineering problems.
 - b) Design and conduct experiments, analyze and interpret data.
 - c) Design and use engineering systems, components, or processes to help solve practical problems within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
 - d) Work productively on multidisciplinary teams.
 - e) Identify, formulate and solve engineering problems.
 - f) Describe and purpose to keep a personal and professional ethical lifestyle consistent with the Christian faith.
 - g) Use written and oral communication effectively.
 - h) Possess the broad education necessary to understand the impact of engineering solutions in a global and societal context.
 - i) Recognize of the need for and engage in life-long learning.
 - j) Identify contemporary issues relevant to engineering solutions.
 - k) Use the techniques, skills and modern engineering tools necessary for engineering research and practice.
 - l) Work toward the integration of Christian faith, learning, and professional life.
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Engineering Major

Messiah College awards a Bachelor of Science in Engineering (BSE) with a concentration in one or more of six concentrations: Biomedical, Civil, Computer, Electrical, Environmental and Mechanical. The Bachelor of Science in Engineering (BSE) degree is accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>.

Messiah College's engineering students explore both the art and science of engineering in preparation for creative professional practice. Building on a foundation of mathematics and the basic sciences, the engineering faculty use courses and client-defined projects to prepare students for entry-level engineering employment and/or advanced studies. The Project portion of the curriculum is offered in partnership with the Collaboratory for Strategic Partnerships and Applied Research.

Engineering students at Messiah also consider the value and social impact of technology. Students are encouraged to explore service and missions opportunities for engineers, and to participate in activities that build leadership skills under the guidance of faculty members.

The following are recommended for prospective students in addition to the standard admissions requirements of the College:

1. Rank in the top 20% of high school class.
2. Complete four units or more of college preparatory mathematics, one unit of chemistry, and one unit of physics. A course or other preparation in computer programming is also helpful, but not required.
3. Earn a combined SAT score (Math, Verbal) of 1200 or higher or a composite ACT score of 27 or higher. A minimum mathematics SAT score of 600 or ACT score of 25 is required.

Progression in the Engineering Major

Students are directly admitted to the Engineering program but must meet progression criteria to advance into a specific concentration and enroll for upper division (300- and 400-level) courses. The following progression criteria will be enforced prior to registration for upper division coursework:

1. The student must have an earned grade of C- or better in each of the following courses: MATH 111, MATH 112, CHEM 105, PHYS 211, PHYS 212, ENGR 231, ENGR 236. Transfer courses are acceptable.
 2. The student's GPA across the seven courses listed in (1) must be at least 2.50
 - a. In instances where one course from the list has not yet been attempted, a GPA across the remaining courses of at least 2.60 shall be sufficient for progression
 - b. In instances where two courses from the list have not yet been attempted, a GPA across the remaining courses of at least 2.70 shall be sufficient for progression
 - c. Courses for which credit has transferred into Messiah College will not be counted in the GPA calculation
 - d. For purposes of this GPA calculation (different than the College-wide calculation) courses may be retaken and the new course score will replace the previous course score regardless of the grades in each of the two attempts
 - e. Students may attempt each of the courses listed in (1) only twice - an initial attempt and one re-attempt. Withdrawals after the College add/drop deadline shall count as the initial attempt. Extenuating circumstances, such as
-

medical withdrawal, will not count against the student's attempt quota.

- Students who fall short of the progression criteria may appeal the decision and will be asked to provide evidence that they can succeed in the upper-level coursework. The appeal will be processed by a sub-committee in the Engineering department (the Admission and Progression Committee) that will be composed of the department chair and two faculty appointed by the department. The student should submit their appeal, in writing, to their assigned academic advisor. Appeals will be reviewed in January (related to previous fall performance and upcoming spring progression) and May (related to previous spring performance and upcoming fall progression).

Transfer students

Internal transfers (from another Messiah College program) will be held to the same progression standards as indicated above. External transfer students (anyone taking 2 or fewer of the courses listed in (1) at Messiah College) will be asked to submit grades in relevant coursework at other institutions to the Admission and Progression Committee. A decision from that committee will be rendered to the student and may include admission to the concentration of choice, or some remedial actions that will be expected (such as re-taking a course in question).

Engineering (B.S.E.) (88-90 credits)

Core requirements (29-33 credits)

ENGR 101 Engineering Graphics (2)
ENGR 102 Introduction to Engineering (2)
ENGR 201 Project Management (1)
ENGR 231 Engineering Statics (3)
ENGR 236 Circuits I (4)
ENGR 242 Experimental Methods (3)
ENGR 254 Materials Engineering (4)
ENGR 290 Engineering Economics (2)
ENGR 301 Seminar I (1)
ENGR 302 Seminar II (1)
ENGR 366 Control Systems (4) (Not required for Civil or Environmental concentrations.)

Six credits from the following:

ENGR 288 Project I (1)
ENGR 388 Project II (1-2)
ENGR 488 Project III (2-3)
ENGR 489 Project IV (2-3)

Required Supporting Courses for all concentrations (27-30 credits)

CHEM 105 General Chemistry I (4)
MATH 111 Calculus I (4)
MATH 112 Calculus II (4)
MATH 211 Calculus III (4)
MATH 261 Linear Algebra (3) (Not required for Civil concen.)
MATH 308 Differential Equations (3) (Not required for Civil)
MATH 270 Linear and Differential Methods (3) (Applies only to Civil Concentration)
PHYS 211 General Physics I (4)
PHYS 212 General Physics II (4)

One of the following concentrations:

Biomedical Concentration (26-27 credits)

ENGR 233 Mechanics of Materials (3)
ENGR 310 Principles of Biomedical Engineering (3)
ENGR 371 Thermodynamics (3)
ENGR 372 Fluid Mechanics (4)
ENGR 375 Bio-Instrumentation and Measurement (3)
ENGR 410 Design of Medical Devices (3)
BIOL 160 Molecular and Cellular Biology (4)

Three or four credits from the following:

APHS 271 Kinesiology (3)
BIOL 385 Physiology (4)
CHEM 106 General Chemistry (4)

Civil Concentration (33 credits)

ENGR 233 Mechanics of Materials (3)
ENGR 321 Environmental Engineering (4)
ENGR 322 Water Resources Engineering (3)
ENGR 351 Analysis and Dynamics of Structures (4)
ENGR 352 Design of Concrete Structures (3)
ENGR 355 Soil Mechanics and Foundation Design (3)
ENGR 357 Transportation Engineering (3)
ENGR 358 Construction Methods and Materials (3)
ENGR 372 Fluid Mechanics (4)
ENGR 452 Design of Steel Structures (3)

Computer Concentration (25-26 credits)

CIS 181 Computer Programming I (3)
CIS 284 Computer Programming II (3)
CIS 384 Elements of Computing Systems (3)
CIS 385 Data Structures and Algorithms (3)
ENGR 237 Circuits II (3)
ENGR 340 Analog Electronics (3)
ENGR 342 Embedded Systems Design (4)
Three to four credits from the following:
CIS 332 Database Concepts (3)
CIS 415 Data Communications and Networking (3)
CIS 416 Operating Systems & Computer Architecture (3)
CIS 432 Database Applications (3)
CIS 482 Organization of Programming Languages (3)
CIS 487 Interactive 3D Graphics (3)
ENGR 364 Electrical Devices (4)
ENGR 365 Linear Systems (3)
ENGR 367 Electromagnetics (3)
ENGR 369 Communications Systems (3)

Electrical Concentration (26 credits)

CIS 181 Computer Programming I (3)
ENGR 237 Circuits II (3)
ENGR 340 Analog Electronics (3)
ENGR 342 Embedded Systems Design (4)
ENGR 364 Electrical Devices (4)
ENGR 365 Linear Systems (3)
ENGR 367 Electromagnetics (3)
ENGR 369 Communications Systems (3)

Environmental Concentration (30-31 credits)

ENGR 321 Environmental Engineering (4)
 ENGR 322 Water Resources Engineering (3)
 ENGR 371 Thermodynamics (3)
 ENGR 372 Fluid Mechanics (4)
 ENGR 440 Water and Wastewater Treatment (3)
 ENGR 442 Hazardous Waste and Air Pollution Mgmt (3)

Three to four credits from the following:

BIOL 160 Molecular and Cellular Biology (4)
 BIOL 162 Plant Form and Function (3)
 CHEM 106 General Chemistry II (4)
 GIS 245 Intro to Geographic Information Systems (3)

Mechanical Concentration (26 credits)

ENGR 232 Engineering Dynamics (3)
 ENGR 233 Mechanics of Materials (3)
 ENGR 371 Thermodynamics (3)
 ENGR 372 Fluid Mechanics (4)
 ENGR 373 Instrumentation and Measurement (3)
 ENGR 374 Heat Transfer Analysis and Design (4)
 ENGR 381 Mechanical Design (3)
 ENGR 384 Manufacturing Processes (3)

HEALTH, NUTRITION and EXERCISE SCIENCE

Department Chair: Eric Rawson
Administrative Assistant: Gina Jablonski
 Cynthia Steffan (Dietetics)
Professors: S. Kieffer, D. Miller, E. Rawson, K. Witt
Associate Professors: A. Porto
Associate Professor (Clinical Track): W. Cheesman
Assistant Professors: K. Hansen-Kieffer, S. Joo
 M. Lewis, D. Tanis
Senior Lecturers: S. Bush, J. Tobias
Lecturer: J. Kauffman, M. Smith. B. White

Majors and Minors

To accommodate a wide variety of student interests and career options the department offers six majors and five minors. The Department of Health, Nutrition and Exercise Science offers the following majors:

Adventure Education (B.A.)
 Applied Health Science (B.S.) *with concentrations in:*
 Exercise Science
 Pre-Physical Therapy
 Pre-Professional
 Applied Health Science (B.S.)/MSOT in Occupational
 Therapy – Thomas Jefferson University
 Athletic Training (B.A.)
 Health and Physical Education with Teaching Certification
 (K-12) (B.A.)
 Nutrition and Dietetics (B.S.)
 Sport Management (B.A.)

The Department of Health, Nutrition and Exercise Science offers the following minors:

Adventure Education	Athletic Training
Health and Exercise Science	Foods and Nutrition
Sport Management	

A lifestyle which includes regular physical activity and healthy, sustainable food choices reflects good stewardship of God's creation and promotes health. Students completing majors in the Health Nutrition, and Exercise Science Department develop the knowledge and skills needed to help individuals and communities improve their health, primarily through physical activity and food choices.

Health, Nutrition and Exercise Science majors may be expected to:

1. Provide own transportation for the Applied Health Science and Sport Management Practicum and Internship, Athletic Training practicum, Health and Physical Education student teaching experience or Adventure Education Internship.
2. Show proof of certain immunizations and background checks when necessary.

Adventure Education

This major will prepare the individual for a career as an adventure educator. The student will gain the theory, knowledge, skills, and experience necessary to successfully plan, implement, administer, and supervise educational experiences in the outdoor setting. Adventure education programs focus on the interpersonal relationships and personal growth that can occur during outdoor adventure activities and include challenge course experiences, extended wilderness trips, day activities such as rock climbing, caving, and canoeing. Students

have the option of spending a semester on a National Outdoor Leadership School (NOLS) course in the Pacific Northwest, Rocky Mountains, or desert southwest. There are additional fees for courses that involve certifications and/or travel.

Adventure Education (B.A.) (61-63 credits)

Five credits of the following:

- ADED 281 Caving Instructor (2)
- ADED 282 Rock Climbing Instructor (3)
- ADED 286 Paddlesports Instructor (3)

- ADED 139 Wilderness Encounter (3)
- ADED 180 Wilderness First Responder (3)
- ADED 250 Foundations of Adventure Education (3)
- ADED 251 Outdoor Leadership and Teaching Methods (3)
- ADED 288 Challenge Course Facilitation & Management (3)
- ADED 301 Leadership and Group Dynamics (3)
- ADED 331 Adventure Processing and Facilitation (3)
- ADED 351 Programming and Trip Design (3)
- ADED 352 Trip Implementation and Evaluation (3)
- ADED 401 Advanced Technical Skills (3)
- ADED 411 Senior Seminar for Adventure Education Majors (3)
- APHS 170 Concepts of Conditioning (2)
- APHS 201 Principles of Exercise Science (3)

Three credits from the following:

- BIOL 117 Field Biology (2)
- BIOL 140 Ecology and Sustainability (3)

At least three credits from the following:

- APHS 271 Kinesiology (3)
- BIOL 185 Human Anatomy and Physiology I (4)
- BIOL 258 Human Biology (4)

One credit from the following:

- INTE 391 Internship (1-3)*
- INTE 394 Internship (4-12)

- EDUC 331 Instructional Design and Assessment (3)
- HPED 332 Teaching Adapted Physical Education (1)
- HPED 423 Principles of Administration (3)
- PSYC 203/EDUC 203 Educational Psychology (3)
- WELL 135 Non-traditional Games (1)

Note: The Adventure Education major does not lead to teacher certification.

*INTE 391 must be taken for a letter grade.

Adventure Education Minor (21 credits)

- ADED 139 Wilderness Encounter (3)
- ADED 180 Wilderness First Responder (3)
- ADED 250 Foundations of Adventure Education (3)
- ADED 288 Challenge Course Facilitation and Management (3)
- ADED 301 Leadership and Group Dynamics (3)
- ADED 331 Adventure Processing and Facilitation (3)

Three credits from the following:

- ADED 281 Caving Instructor (2)
- ADED 282 Rock Climbing Instructor (3)
- ADED 286 Paddlesports Instructor (3)
- ADED 251 Outdoor Leadership and Teaching Methods (3)

Applied Health Science

Students majoring in Applied Health Science desire careers in the broad health field. Four options are available depending on students' career goals. Emphasis is on systems biology and integrating physiology as applied to health.

Pre-Physical Therapy Concentration. Students selecting this option desire a career in physical therapy. Additional graduate work is necessary.

Pre-Professional Concentration. Students choosing this concentration are interested in careers in Health Professions such as medicine, physician's assistant, chiropractic, or graduate school in health related sciences.

3+2 Articulation Agreement with Thomas Jefferson in Occupational Therapy. Students can earn a bachelor's degree in Applied Health Science and the Master of Science degree from Thomas Jefferson in 5 years. Students will spend the first three years at Messiah College and then proceed to Jefferson School of Health Professions for the final 2 years of study. There are specific standards of performance for students desiring to pursue this option.

Exercise Science Concentration. Students in this concentration will prepare for careers in fields such as corporate fitness, cardiac rehabilitation, personal trainer, strength and conditioning specialist, or other wellness positions. In addition, students who are interested in occupational therapy, health promotion, or public health can tailor this major to prepare them for graduate work.

Dedicated faculty and a human performance laboratory are two of the resources that enable Messiah to offer a quality Applied Health Science major. This program equips graduates with the necessary knowledge and abilities to qualify for positions in this highly competitive field.

Applied Health Science (B.S.) (52-72 credits)

Core requirements (27 credits)

- APHS 170 Concepts of Conditioning (2)
- APHS 215 Chronic Disease and Exercise (3)

Three credits from the following:

- APHS 225 Research Methods and Statistical Analysis (3)
- STAT 269 Introductory Statistics (3)

- APHS 271 Kinesiology (3)
- APHS 301 Exercise Physiology (4)
- APHS 325 Applied Human Physiology (3)
- APHS 412 Senior Seminar for Applied Health Science (3)
- PSYC 101 Introduction to Psychology (3)

Three credits from the following:

- GERO 251 Biology, Nutrition and Healthy Aging (3)
- PSYC 209/HDFS 209 Lifespan Development (3)
- PSYC 210/HDFS 210 Child Development (3)
- PSYC 311/HDFS 311 Adolescent Development (3)
- PSYC 312/HDFS 312 Adult Development (3)

One of the following concentrations:

Exercise Science Concentration (25-28 credits)

Six credits from the following:

- APHS 210 Exercise Psychology (3)
- APHS 220 Health Promotion Management (3)
- APHS 310 Elite Athletic Performance (3)
- APHS 315 Stress Testing and ECG Interpretation (3)
- APHS 330 Advanced Research Methods (3)
- APHS 360 Exercise Testing and Prescription (3)

APHS 410 Topics in Health and Exercise Science (3)
 APHS 415 Advanced Exercise Physiology (3)
 HPED 305 Contemporary Issues in Health (3)
 HPED 423 Principles of Administration (3)
 INTE 391 Internship (1-3)
Three to four credits from the following:
 BIOL 189 Genetics for Health Professions (3)
 CHEM 106 General Chemistry II (4)
Eight additional BIOL credits in consultation with the student's major advisor from the following:
 BIOL 160 Molecular and Cellular Biology (4)
 BIOL 161 Animal Form and Function (3)
 BIOL 185 Human Anatomy and Physiology I (4)
 BIOL 186 Human Anatomy and Physiology II (4)
 BIOL 189 Genetics for Health Professions (3)*
 BIOL 218 Health Care in the Developing World (3)
 BIOL 260 Genetics and Development (3)
 BIOL 382 Microbiology for Health Professions (4)
 BIOL 385 Physiology (4)
 BIOL 386 Human Anatomy (4)
Four credits from the following:
 CHEM 105 General Chemistry I (4)
 CHEM 103 Chemical Science (4) (consult with advisor).
 NUTR 222 Nutritional Theory (3)
 *If student takes BIOL 189 for requirement above, they may not use this course to fulfill the BIOL elective in this category.

Pre-Physical Therapy Concentration (44-45 credits)

BIOL 160 Molecular and Cellular Biology (4)
 BIOL 382 Microbiology for Health Professions (4)
 BIOL 385 Physiology (4)
 BIOL 386 Human Anatomy (4)
 CHEM 105 General Chemistry I (4)
 CHEM 106 General Chemistry II (4)
Three to four credits from the following:
 MATH 102 Mathematics of Growth (3)
 MATH 108 Intuitive Calculus with Applications (3)
 MATH 111 Calculus I (4)
 PHYS 201 Introductory Physics I (4)
 PHYS 202 Introductory Physics II (4)
Nine credits from the following:
 APHS 210 Exercise Psychology (3)
 APHS 220 Health Promotion Management (3)
 APHS 310 Elite Athletic Performance (3)
 APHS 315 Stress Testing and ECG Interpretation (3)
 APHS 330 Advanced Research Methods (3)
 APHS 360 Exercise Testing and Prescription (3)
 APHS 410 Topics in Health and Exercise Science (3)
 APHS 415 Advanced Exercise Physiology (3)
 ATED 203 Medical Terminology and Medical Topics (2)
 ATED 231 Injury Assessment I (2)
 ATED 232 Injury Assessment II (2)
 ATED 233 Injury Assessment III (2)
 ATED 335 Therapeutic Exercise (4)
 ATED 337 Therapeutic Modalities & Treatment Techniq. (4)
 HPED 305 Contemporary Issues in Health (3)
 HPED 332 Teaching Adapted Physical Education (1)
 NUTR 222 Nutritional Theory (3)

Pre-Professional Concentration (41-42 credits)

BIOL 160 Molecular and Cellular Biology (4)
Eight credits from the following:
 BIOL 382 Microbiology for Health Professions (4)
 BIOL 385 Physiology (4)
 BIOL 386 Human Anatomy (4)
 CHEM 105 General Chemistry I (4)
 CHEM 106 General Chemistry II (4)
Four credits from the following:
 CHEM 309 Organic Chemistry (4)
 CHEM 204 Introduction to Organic Chemistry (4)
Three to four credits from the following:
 MATH 108 Intuitive Calculus with Applications (3)
 MATH 111 Calculus I (4)
 PHYS 201 Introductory Physics I (4)
 PHYS 202 Introductory Physics II (4)
Six credits from the following:
 APHS 310 Elite Athletic Performance (3)
 APHS 315 Stress Testing and ECG Interpretation (3)
 APHS 330 Advanced Research Methods (3)
 APHS 360 Exercise Testing and Prescription (3)
 APHS 410 Topics in Health and Exercise Science (3)
 APHS 415 Advanced Exercise Physiology (3)
 NUTR 222 Nutrition Theory (3)

Applied Health Science (B.S.)/Occupational Therapy (M.S.O.T.)

Thomas Jefferson University (61 credits from Messiah College)
 APHS 170 Concepts of Conditioning (2)
 APHS 215 Chronic Disease and Exercise (3)
 APHS 301 Exercise Physiology (4)
 APHS 325 Applied Human Physiology (3)
 APHS 360 Exercise Testing and Prescription (3)
 APHS 412 Senior Seminar for Applied Health Science (3)
Three credits from the following (alternate year courses):
 APHS 210 Exercise Psychology (3)
 APHS 310 Elite Athletic Performance (3)
 APHS 315 Stress Testing and ECG Interpretation (3)
 APHS 415 Advanced Exercise Physiology (3)
 BIOL 185 Human Anatomy and Physiology I (4)
 BIOL 186 Human Anatomy and Physiology II (4)
 BIOL 189 Genetics for Health Profession (3)
Four credits from the following:
 CHEM 103 Chemical Science (4)
 CHEM 105 General Chemistry I (4)
 NUTR 222 Nutrition Theory (3)
 PSYC 101 Introduction to Psychology (3)
 PSYC 209 Lifespan Development (3)
 PSYC 319 Abnormal Psychology (3)
 SOAN 101 Introduction to Sociology (3)
 STAT 269 Introductory Statistics (3)
Jefferson University Course Requirements (2 years)
 OC 302 Applied Anatomy and Kinesiology (4)
 OT 467 Health Services Administration & Professional Develop. (2)

Athletic Training

Director: S. Bush

Upon completion of all program requirements, students are eligible to take the Board of Certification (BOC) exam for certification. Once BOC certified, students are eligible to make application for Pennsylvania state licensure. Sports participation is allowed by approval of the Athletic Training Program Director.

Students beginning in Athletic Training go through a formal screening and application process for official admission to the formal major (curriculum and clinical program) after three semesters. The following minimum standards/criteria must be met:

1. Completion of 45 credits (with a minimum GPA of 2.50), including the following required courses: ATED 102, ATED 180, ATED 231, ATED 233, BIOL 185 and 186, or BIOL 160 and CHEM 105.
2. Documentation of 25-40 directed, observation clinical hours.
3. Submission of formal application, a letter of personal interest, an interview with faculty athletic trainers, submission of two formal recommendations, provide the ATP permission/access to required College Engle Center electronic entrance health forms (physical exam, health history, immunizations, etc.) documentation of having submitted required background checks including, PA child abuse, PA state police and FBI criminal background checks, a signature indicating the applicant understands/agrees to comply with all requirements, documentation of NATA membership, documentation the student meets all Athletic Training Program (ATP) technical standards, and documentation of CPR/AED, and First Aid certifications.
4. Students are admitted to the formal major (curriculum and clinical program) upon approval of the Faculty Athletic Trainer Selection Committee and the Department of Health, Nutrition and Exercise Science. Entry is limited on a space-available basis and meeting of all requirements.

Students admitted into the Athletic Training Major must maintain the minimum standards required for admission to the program. Students falling below these levels will be reviewed by the Athletic Training Program Director and may be placed on probation or suspension or be dismissed from the program. Appeals to reviews may be made to the Chair of the Department of Health, Nutrition and Exercise Science.

Upon official admission to the Athletic Training Major, students are required to meet the following requirements:

1. Maintain (and provide copies to the ATP) of current certification in CPR, A.E.D., and First Aid for the Professional Rescuer (American Red Cross or equivalent), as well as Disease Transmission (B.B.P).
2. Attend an athletic training professional convention, educational meeting, or in-service each year after being officially admitted into the major and provide documentation of attendance.
3. Maintain an overall 2.5 GPA.
4. Meet acceptable professional behaviors (e.g. NATA code of ethics, and BOC Standards of Professional Practice), academic requirements, and clinical requirements.

Athletic Training (B.A.) (74-77 credits)

APHS 170 Concepts of Conditioning (2)

APHS 271 Kinesiology (3)

Three or four credits from the following:

APHS 201 Principles of Exercise Science (3)

APHS 301 Exercise Physiology (4)

APHS 360 Exercise Testing and Prescription (3)

ATED 102 Introduction to Athletic Training (1)

ATED 136 Prevention and Risk Management (3)

ATED 137 Prevention and Risk Management Lab (1)

ATED 180 First Aid and Emergency Care (3)

ATED 203 Medical Terminology and Topics (2)

ATED 231 Injury Assessment I (2)

ATED 232 Injury Assessment II (2)

ATED 233 Injury Assessment III (2)

ATED 246 Practicum in Athletic Training I (2)

ATED 330 Pharmacology in Athletic Training (2)

ATED 335 Therapeutic Exercise (4)

ATED 337 Therapeutic Modalities and Treatment Techniques (4)

ATED 346 Practicum in Athletic Training II (2)

ATED 348 Practicum in Athletic Training III (2)

ATED 442 Administration of Athletic Training (3)

ATED 446 Collision Sport in Athletic Training (2)

ATED 447 Clinical Athletic Training (2)

ATED 449 Clinical Experience in Athletic Training (1)

ATED 450 Collision Sport Experience (1-3)

ATED 480 Senior Seminar in Athletic Training (4)

BIOL 185 Human Anatomy and Physiology I (4)

BIOL 186 Human Anatomy and Physiology II (4)

Four credits from the following:

CHEM 105 General Chemistry I (4)

CHEM 103 Chemical Science (4)

NUTR 222 Nutrition Theory (3)

PSYC 101 Introduction to Psychology (3)

Athletic Training Minor (17-19 credits)

ATED 102 Introduction to Athletic Training (1)

ATED 180 First Aid and Emergency Care (3)

Two to four credits from the following:

ATED 136 Prevention and Risk Management (3) and

ATED 137 Prevention and Risk Management Lab (1)

HPED 236 Medical Aspects of Sport (2)

Four credits from the following:

ATED 231 Injury Assessment I (2)

ATED 232 Injury Assessment II (2)

ATED 233 Injury Assessment III (2)

ATED 335 Therapeutic Exercise (4)

ATED 337 Therapeutic Modalities and Treatment Techniques (4)

Health and Exercise Science Minor (19 credits)

APHS 215 Chronic Disease and Exercise (3)

APHS 301 Exercise Physiology (4)

APHS 360 Exercise Testing and Prescription (3)

Six credits from the following:

APHS 210 Exercise Psychology (3)

APHS 310 Elite Athletic Performance (3)

APHS 315 Stress Testing and ECG Interpretation (3)

APHS 415 Advanced Exercise Physiology (3)

Three credits from upper level ATED, HPED, or HEXS (3)*

*Requires prerequisite(s), may increase the total credits required.

Health and Physical Education

Health and Physical Education with K-12 Teaching Certification (B.A.) (90-93 credits)

APHS 170 Concepts of Conditioning (2)
APHS 201 Principles of Exercise Science (3)
APHS 271 Kinesiology (3)

Students must fulfill **one** of the following sets of requirements (0-3):

- A. Competency in First Aid and CPR **and**
HPED 192 Water Safety Instructor (2)
WELL 127 Aquatics (1)
- C. HPED 193 Lifeguarding/First Aid/CPR (2) **or**
Lifeguarding competency

BIOL 258 Human Biology (4)
CIS 171 Problem Solving with Computers (3)
EDSP 207 Introduction to Special Education (3)
EDSP 307 Inclusion Practices (3)
EDUC 201 Education and American Society (3)
EDUC 203 Educational Psychology (3)
EDUC 208 Teaching English Language Learners in K-12 Schools
EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3)
EDUC 420 Professional Issues in Education (2)
ENGL 122-176 Literature meeting QuEST (3)
HPED 224 Community and Personal Health (3)
HPED 201 Foundations of Physical Education (1)
HPED 229 Motor Learning (3)
HPED 236 Medical Aspects of Sport (2)
HPED 305 Contemporary Issues in Health (3)
HPED 309 Curriculum & Instruction in Elem. Physical Educ. (3)
HPED 312 Curriculum & Instruction in Secondary Physical Ed. (3)
HPED 329 Sport in Society (3)
HPED 332 Teaching Adapted Physical Education (1)
HPED 422 Assessment in Health and Physical Education (2)
HPED 423 Principles of Administration (3)
MATH/CIS/STAT xxx meeting QuEST requirement (3)
WELL 109 Beginning Volleyball (1) **or**
WELL 110 Intermediate Volleyball (1)
WELL 114 Dance and Rhythm Activities (1)
WELL 120 Racquet Activities (1)
WELL 121 Team Activities (1)

Two credits from the following:

- WELL 123 Strength Training (1)
- WELL 129 Beginning Pilates (1)
- WELL 131 Disc Activities (1)
- WELL 135 Non-Traditional Games (1)

PSYC 210/HDFS 210 Child Development (3)
PSYC 311/HDFS 311 Adolescent Development (3)
TEP 210 Sophomore Field Experience (0)
TEP 310 Junior Field Experience (0)
TEP 411 Pre-Student Teaching Experience in HPE (0)

Professional Semester

HPED 407 Student Teaching Seminar (1)
TEP 431 HPE Student Teaching (9)

All students who pursue teacher certification must comply with established policies and procedures that regulate admissions to, retention in, and certification through Messiah College's Teacher Education Program. A complete copy of the Teacher Education Program Handbook can be found on the program homepage www.messiah.edu/academic/teacher/teach.htm. To reach the handbook site easily, visit the Messiah homepage, click on [Academics](#), and then on [Teacher Education Program](#).

Three major criteria are evaluated for admission:

- A. GPA/academic performance
- B. character references
- C. endorsements/references

When admitted to the College, all students who intend to pursue a teacher preparation program are identified with a "pre" status. All such students are required to make formal application for admission to the Teacher Education Program by November 1 of the sophomore year.

Students apply for admission to the Professional Semester (student teaching semester) during the junior year. Students are expected to file a formal application for admission to the Professional Semester by November 1 of the academic year prior to the one in which the Professional Semester will occur.

Health and Physical Education Studies (B.A.)

Enrollment in the Health and Physical Education Studies major is only open to students currently in the HHP-HPE teacher certification major and who: a) have junior status and b) have been recommended and approved by the HHP Department. This major cannot be student initiated. Departmental recommendation for this major is only granted when the student is not approved for enrollment in the field-based experiences the junior or senior year, the Professional Semester, or it has been determined that the student cannot successfully complete the roles and responsibilities of the student teaching experience. This major will not lead to, nor result in, Messiah College recommending the candidate for Pennsylvania Department of Education public school teacher certification.

Nutrition and Dietetics

Director: K. Witt

Dietetics is a profession concerned with the science and art of human nutrition care. Messiah is one of the few Christian colleges offering students a nutrition major which is accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). The Messiah College Nutrition and Dietetics major provides excellent preparation for careers in nutrition science, public health, dietetics, and food service. Students study a wide variety of subjects, including anatomy and physiology, chemistry and biochemistry, food science and technology, nutrition science, business, education and counseling, and medical nutrition. Hands-on learning is emphasized throughout the curriculum. In addition to course work, students are strongly encouraged to obtain work or volunteer experience in nutrition and dietetics.

Many jobs in nutrition care require that an individual be credentialed as a registered dietitian nutritionist (RDN). To earn the RDN credential, an individual must complete a three step process:

- 1) Complete a minimum of a bachelor's degree at a US regionally accredited college or university and course work through a dietetics program accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND).
- 2) Be accepted by and successfully complete an ACEND-accredited supervised practice program or dietetic internship. These programs are offered by health care facilities, community agencies, foodservice corporations or educational institutions, and are typically 9 - 12 months in length. The dietetic internship application process occurs primarily through a competitive national match.

3) Pass a national examination administered by the Commission on Dietetic Registration (CDR).

Once the RDN credential has been earned, continuing professional educational requirements must be met to maintain it. For additional information on dietetics education, contact ACEND at Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2000, Chicago, Illinois 60606-6995, Phone: 312-899-0040 Ext. 5400, or www.eatright.org.

The Messiah College Nutrition and Dietetics major is approved by ACEND as a Didactic Program in Dietetics and enables students to complete the first step towards becoming a registered dietitian nutritionist. Nutrition and Dietetics graduates who wish to earn the RDN credential apply to ACEND-accredited dietetic internships. Messiah College also offers a dietetic internship as a graduate certificate program. Students completing the Messiah College Nutrition and Dietetics major may apply to be preselected into the Messiah College dietetic internship during the fall of their senior year. After successful completion of a dietetic internship (Step 2), they are eligible to take the national registration exam (Step 3).

In addition to the RDN credential, Nutrition and Dietetics majors can also pursue graduate education in public health, nutrition science, or nutrition education. With additional math and science courses, the major can also provide preparation for applying to medical or dental school or physician assistant programs. Graduates who do not continue their education are employable as dietetic technicians in health care institutions and businesses, nutrition counselors in community nutrition programs, and food service managers in health care institutions, schools, and industry.

The Department of Health, Nutrition, and Exercise Science also offers a verification program for individuals who already have at least a bachelor's degree from an accredited institution but have not taken all of the course work required by ACEND. Individuals seeking to obtain verification of the ACEND Didactic Program in Dietetics academic requirements complete an individualized plan of study based on evaluation of their academic transcripts, including at least 18 credits in Food and Nutrition courses at Messiah College. Individuals who complete the verification program requirements are eligible to apply for ACEND-accredited supervised practice programs.

Progression requirements: In order to progress into NUTR 410, 411, and 425, students must have completed the following courses with no grades lower than a C- in each and an average GPA in them of 2.5 (2.75 if more than one of these courses is transferred to Messiah): CHEM 105, 106, and 204 or 309/310, BIOL 185 or BIOL 160, NUTR 121 and 222. Students who do not achieve the required minimum GPA will not be able to complete the Nutrition and Dietetics major. **Repeat Policy:** One course from the list may be repeated one time. An attempt at a course will include all letter grades as well as W. When extenuating circumstances arise (i.e. significant illness or death in the family), students may appeal this policy by submitting a written letter explaining the rationale for the exception to the DPD Director. If the appeal is denied, the department decision may be appealed to the dean of the School of Science, Engineering and Health.

Nutrition and Dietetics (B.S.) (70-77 credits)

One of the following sequences:

- a. BIOL 185 Human Anatomy and Physiology I (4) and BIOL 186 Human Anatomy and Physiology II (4) or
- b. BIOL 160 Molecular and Cellular Biology (4) and BIOL 161 Animal Form and Function (3) and BIOL 385 Physiology (4)

Four credits from the following:

- BIOL 381 Microbiology (4)
- BIOL 382 Microbiology for Health Professions (4)
- BUSA 120 Principles of Management (3)
- CHEM 105 General Chemistry I (4)
- CHEM 106 General Chemistry II (4)

One of the following options (4-8):

- a. CHEM 204 Introduction to Organic Chemistry (4)
 - b. CHEM 309 Organic Chemistry I (4) **and**
CHEM 310 Organic Chemistry II (4)
- NUTR 099 Opportunities in Nutrition, Food Service, and Dietetics (1)
 - NUTR 121 Food and Food Science (3)
 - NUTR 222 Nutrition Theory (3)
 - NUTR 322 Nutrition Through the Life Cycle (3)
 - NUTR 331 Advanced Food Science and Technology (3)
 - NUTR 341 Food Service (4)
 - NUTR 352 Community Nutrition (3)
 - NUTR 410 Nutrition Education and Counseling (3)
 - NUTR 411, 412 Medical Nutrition Therapy I, II (3, 3)
 - NUTR 425 Nutrient Metabolism and Research Methods I (4)
 - NUTR 426 Nutrient Metabolism and Research Methods II (3)
 - NUTR 493 Senior Seminar (1)
 - PSYC 101 Introduction to Psychology (3)
 - STAT 269 Introductory Statistics (3)

Foods and Nutrition Minor

The Foods and Nutrition Minor is designed to enhance the nutrition, food science, or food service expertise of students majoring in related fields. The minor does not satisfy the Commission on Accreditation for Dietetics Education academic requirements, and does not provide adequate nutrition background for jobs focused on nutrition care.

Foods and Nutrition Minor (19-20 credits)

- CHEM 105 General Chemistry I or
CHEM 103 Chemical Science (4)
- NUTR 121 Food and Food Science (3)
- NUTR 222 Nutrition Theory (3)
- NUTR 322 Nutrition through the Life Cycle (3)

Six to seven credits selected from the following:

- NUTR 331 Advanced Food Science and Technology (3)
- NUTR 341 Food Service (4)
- NUTR 352 Community Nutrition (3)
- NUTR 425 Nutrient Metabolism and Research Methods I (4)
- NUTR 426 Nutrient Metabolism and Research Methods II (3)

In order to progress into NUTR 410, 411, and 425, students must have completed the following courses with no grades lower than a C- in each and an average GPA in them of 2.5 (2.75 if more than one of these courses is transferred to Messiah): CHEM 105, 106, and 204 or 309/310, BIOL 185 or BIOL 160, NUTR 121 and 222.

Sport Management

Sport Management (B.A.) (58 credits)

ACCT 141 Financial Accounting (3)
ACCT 242 Managerial Accounting (3)
APHS 170 Concepts of Conditioning (2)
APHS 201 Principles of Exercise Science (3)
BIOL 258 Human Biology (4)
CIS 190 Strategic Use of Information Technology (3)
BUSA 120 Principles of Management (3)
BUSA 381 Business Law I (3)
HPED 329 Sport in Society (3)
HPED 423 Principles of Administration (3)
HPED/WELL Skills Elective (1)
MRKT 130 Marketing Principles (3)
PSYC 101 Introduction to Psychology (3)
SPMT 110 Sport Management Careers and Content (1)
SPMT 210 Ethics and Law in Sport Management (3)
SPMT 211 Economics and Governance in Sport (3)
SPMT 313 Sport Facility and Event Management (3)
SPMT 314 Sponsorship and Marketing in Sport Management (3)
INTE 391 Internship (3)
SPMT 410 Topics in Sport Management (2)
SPMT 411 Senior Seminar for Sport Management (3)

Sport Management Minor (18 credits)

SPMT 110 Sport Management Careers and Content (1)
SPMT 210 Ethics and Law in Sport Management (3)
SPMT 211 Economics and Governance in Sport (3)
SPMT 313 Sport Facility and Event Management (3)
SPMT 314 Sponsorship and Marketing in Sport Management (3)
SPMT 391 Sport Management Practicum (3)
SPMT 410 Special Topics in Sport Management (2)

MATHEMATICS, PHYSICS and STATISTICS

Department Chair: Samuel P. Wilcock
Administrative Assistant: Jean McCauslin
Professors: M. Eby, A. Hare, D. Phillippy,
L. Widmer, S. Wilcock
Associate Professors: N. Hellgren, A. Kryemadhi
Assistant Professors: M. Farrar, A. Lohss
Senior Lecturer: C. Lehman

Majors and Minors

The Department of Mathematics, Physics and Statistics offers the following majors:

Actuarial Science (B.S.)
Mathematics (B.A.)
Mathematics with Secondary Teaching Certification (B.A.)
Physics (B.A.)/(B.S.)
Physics with Secondary Teaching Certification (B.A.)

The Department of Mathematics, Physics and Statistics offers the following minors:

Mathematics
Physics
Statistics

Mission

The mission of the Department of Mathematics, Physics and Statistics is to educate students in excellent problem-solving skills and the quantitative analysis of mathematics, statistics, and physics and to challenge students to live out their faith in their vocation as they become servant leaders in society, church, and the world.

Actuarial Science

The Actuarial Science degree program prepares mathematically talented students who have an interest in business applications for work in the actuarial science field. In this major, you will use a combination of strong analytical skills, business knowledge, and understanding of human behavior to manage risk. You will prepare for work in the actuarial field while connecting faith and disciplinary expertise in unique and challenging ways.

Actuarial Science (B.S.) (70 credits)

CIS 181 Computer Programming I (3)
PHYS 211 General Physics I (4)
MATH 111 Calculus I (4)
MATH 112 Calculus II (4)
MATH 211 Calculus III (4)
MATH 195 First Year Math Seminar (3)
MATH 261 Linear Algebra (3)
MATH 362 Algebraic Structures (3)
MATH 412 Real Analysis (3)
MATH 350 Mathematics of Finance I (3)
MATH 450 Mathematics of Finance II (3)
MATH 494 Senior Mathematics Seminar (3)
STAT 291 Statistics for the Math Sciences I (3)
STAT 292 Statistics for the Math Sciences II (3)
STAT 345 Time Series Analysis (3)
STAT 407 Intro to Mathematical Statistics (3)
ECON 120 Principles of Macroeconomics (3)
ECON 220 Principles of Microeconomics (3)
ACCT 131 Survey of Accounting (3)

FINA 305 Financial Management (3)

INTE 391 Internship (3)

Three credits from the following:

FINA 307/ECON 307 Money and Financial Markets (3)

FINA 351 Investments (3)

FINA 405 Corporate Finance (3)

Mathematics

Mathematics Majors learn to appreciate the logical beauty of mathematical thought and how to use it to solve many kinds of problems. After taking the foundational courses, students choose from theoretical and applied mathematics courses as they pursue their career objectives. Through the internship program, they may gain practical experience. Graduates are prepared for employment as mathematicians in a variety of settings in industry, business, and government, and for graduate study. By taking the sequence of education courses, they can be certified to teach secondary mathematics (gr. 7-12). In eight semesters, one can prepare for entrance into the actuarial profession and the first two actuarial exams with the Mathematics major plus 5 courses from Business and Economics.

Mathematics (B.A.) (59 credits)

CIS 181 Computer Programming I (3)

ECON 120 Principles of Macroeconomics (3)*

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

MATH 195 First Year Mathematics Seminar (3)

MATH 211 Calculus III (4)

MATH 261 Linear Algebra (3)

MATH 362 Algebraic Structures (3)

MATH 412 Introduction to Real Analysis (3)

MATH 494 Senior Mathematics Seminar (3)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

STAT 291 Statistics for Mathematical Sciences I (3)

Three credits from the following:

CIS 284 Computer Programming II (3)

STAT 292 Statistics for Mathematical Sciences II (3)

Twelve credits from the following (12):

ENGR 365 Linear Systems (3)

STAT 3xx/4xx (3)

MATH 301 Numerical Analysis (3)

MATH 308 Differential Equations (3)

MATH 341 Mathematical Modeling (3)

MATH 350 Mathematics of Finance I (3)

MATH 382 Geometry (3)

MATH 392 History of Mathematics (3)

MATH 405 Introduction to Mathematical Research (3)

MATH 490 Topics in Mathematics (3)

MATH 491 Independent Study (1-3)

*Students in the mathematics and mathematics with teaching certification majors are encouraged to complete the sequence ECON 120: Principles of Macroeconomics and ECON 220: Principles of Micro Economics. The study of economics provides an excellent foundation for many careers in mathematical sciences. A double-major or minor in economics is a strong, marketable addition to the mathematics major, and either combination can be completed in 8 semesters.

Mathematics with Secondary Teaching Certification (B.A.)

(91 credits) Students who are considering secondary mathematics teaching as one of several career options in mathematical sciences are encouraged to complete an additional six credits of MATH/STAT 3xx/4xx courses. This allows you to graduate with a Mathematics degree, if you choose, while still maintaining Pennsylvania Secondary Teaching Certification.

Three credits from the following:

CIS 181 Computer Programming I (3)

CIS 191 Web Development I: Client Side (3)

Complete one of the following sequences (6):

1. CIS 181 Computer Programming I (3) and

CIS 284 Computer Programming II (3)

2. CIS 181 Computer Programming I (3) and

CIS 283 Business Systems Application (3)

3. CIS 191 Web Development I: Client Side (3) and

CIS 291 Web Development II: Server Side (3)

4. STAT 291 Statistics for Mathematical Sciences I (3) and

STAT 292 Statistics for Mathematical Sciences II (3)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

MATH 195 First-Year Mathematics Seminar (3)

MATH 211 Calculus III (4)

MATH 261 Linear Algebra (3)

MATH 307 Secondary Mathematics/Physics Instruction (2)

MATH 362 Algebraic Structures (3)

MATH 382 Geometry (3)

MATH 412 Introduction to Real Analysis (3)

MATH 494 Senior Mathematics Seminar (3)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

STAT 291 Statistics for Mathematical Sciences I (3)

Three credits from the following:

ENGR 365 Linear Systems (3)

MATH 301 Numerical Analysis (3)

MATH 308 Differential Equations (3)

MATH 341 Mathematical Modeling (3)

MATH 350 Mathematics of Finance I (3)

MATH 392 History of Mathematics (3)

MATH 405 Introduction to Mathematical Research (3)

MATH 490 Topics in Mathematics (3)

MATH 491 Independent Study (1-3)

Any STAT 3xx or 4xx course

EDSP 207 Introduction to Special Education (3)

EDSP 307 Inclusion Practices (3)

EDUC 201 Education and American Society (3)

EDUC 203 Educational Psychology (3)

EDUC 208 Teaching English Language Learners in K-12 Schools

EDUC 331 Instructional Design & Assessment for Sec Educ. (3)

ENGL 122-176 Literature meeting QuEST (3)

TEP 210 Sophomore Field Experience (0)

TEP 310 Junior Field Experience (0)

Professional Semester:

EDUC 420 Professional Issues in Education (2)

MATH 407 Professional Issues in Secondary Mathematics Educ. (1)

PSYC 311/HDFS 311 Adolescent Development (3)

TEP 410 Secondary Pre-Student Teaching Experience (0)

TEP 435 Student Teaching: Secondary (9)

Mathematics Minor (20-21 credits)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

Twelve credits from the following*:

MATH 211 Calculus III (4)

MATH 261 Linear Algebra (3)

MATH 270 Linear and Differential Methods (3)** or

MATH 308 Differential Equations (3)**

STAT 291 Statistics for Mathematical Sciences (3)

STAT 292 Statistics for Mathematical Sciences II (3)

ENGR 365 Linear Systems (3)

MATH/STAT 3xx/4xx** Elective (varies)

*Requires prerequisite(s), may increase the total credits required.

**Note: MATH 307, 391 and 407 do not count towards the minor. Either MATH 270 or MATH 308 will count towards the requirements, but not both.

Physics

The Physics Major offers students a preparation for employment in industry or graduate school in physics or related areas.

Physics (B.A.) (59-62.5 credits)

CHEM 105 General Chemistry (4)

CHEM 495 Capstone Natural Sciences (3)

Three credits from the following:

ENGR 371 Thermodynamics (3)

CHEM 437 Physical Chemistry I (3.5)

CIS 181 Computer Programming I (3)

ENGR 367 Electromagnetics (3)

Three credits from the following:

ENGR 242 Experimental Methods (3)

STAT 291 Statistics for Mathematical Sciences (3)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

MATH 211 Calculus III (4)

One of the following options:

MATH 270 Linear and Differential Methods (3) or

MATH 261 Linear Algebra (3) and MATH 308 Differential Equations (3)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

PHYS 180 Physics Exploration (2)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

PHYS 251 Modern Physics (4)

PHYS 328 Mechanics (3)

PHYS 402 Quantum Mechanics (3)

PHYS 494 Senior Physics Seminar (2)

Students may complete a double major in Mathematics and Physics (BA) by completing all courses listed in each major, subject to the following criteria. This is an exception to the standard college course overlap policy. For a double-major in MATH and PHYS (BA), a student must:

- Complete MATH 261 and MATH 308 in lieu of MATH 270
- Complete STAT 291 (not ENGR 342)
- The student may choose one of {MATH 494, PHYS 494} and is not required to complete both.

Physics (B.S.) (68-72.5 credits)

CHEM 105 General Chemistry (4)

CHEM 495 Capstone Natural Sciences (3)

CIS 181 Computer Programming I (3)

Three credits from the following:

ENGR 242 Experimental Methods (3)

STAT 291 Statistics for Mathematical Sciences I (3)

ENGR 367 Electromagnetics (3)

Three credits from the following:

ENGR 371 Thermodynamics (3)

CHEM 437 Physical Chemistry I (3.5)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

MATH 211 Calculus III (4)

One of the following options:

MATH 270 Linear and Differential Methods (3) or

MATH 261 Linear Algebra (3) and MATH 308 Differential Equations (3)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

PHYS 180 Physics Exploration (2)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

PHYS 251 Modern Physics (4)

PHYS 328 Mechanics (3)

PHYS 402 Quantum Mechanics (3)

PHYS 421 Particle Physics (3)

PHYS 425 Solid State Physics (3)

PHYS 494 Senior Physics Seminar (2)

Three credits from the following:

CIS 284 Computer Programming II (3)

CHEM 393/BIOL 393 Research Methods (1)

ENGR 236 Circuits I (4)

ENGR 365 Linear Systems (3)

ENGR 366 Control Systems (4)

ENGR 373 Fluid Mechanics (4)

PHYS 391 Independent Research (1-3)

Physics with Secondary Teaching Certification (B.A.)

(98-101 credits)

CHEM 105 General Chemistry I

CHEM 495 Capstone Natural Sciences (3)

ENGR 367 Electromagnetics (3)

ENGR 371 Thermodynamics (3)

Three credits from the following:

ENGR 242 Experimental Methods (2)

STAT 291 Statistics for Mathematical Sciences (3)

MATH 111 Calculus I (4)

MATH 112 Calculus II (4)

MATH 211 Calculus III (4)

One of the following options:

MATH 270 Linear and Differential Methods (3) or

MATH 261 Linear Algebra (3) and MATH 308 Differential Equations (3)

PHYS 180 Physics Exploration (2)

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

PHYS 251 Modern Physics (4)

PHYS 328 Mechanics (3)

PHYS 307 Secondary Mathematics/Physics Instruction (2)

PHYS 402 Quantum Mechanics (3)

PHYS 407 Professional Issues in Physics Education (1)

PHYS 494 Senior Physics Seminar (3)
CIS 181 Computer Programming I (3)
EDSP 207 Introduction to Special Education (3)
EDSP 307 Inclusion Practices (3)
EDUC 201 Education and American Society (3)
EDUC 203 Educational Psychology (3)
EDUC 208 Teaching English Language Learners in K-12 Schools
EDUC 331 Instructional Design and Assessment for Middle and

Secondary Grades (3)

ENGL 122-176 Literature meeting QuEST (3)

Three credits from the following:

PHIL 101 Problems in Philosophy (3)

PHIL 102 History of Philosophy (3)

TEP 210 Sophomore Field Experience (0)

TEP 310 Junior Field Experience (0)

Professional Semester:

EDUC 420 Professional Issues in Education (2)

MATH 407 Secondary Mathematics Curriculum and Instruction (1)

PSYC 311/HDFS 311 Adolescent Development (3)

TEP 410 Secondary Pre-Student Teaching Experience (0)

TEP 435 Student Teaching: Secondary (9)

Physics Minor (21-21.5 credits)

Students interested in the physics minor should be aware that 12-15 credits of mathematics courses, (or transfer/AP equivalents), are prerequisite to courses in the physics minor. These courses are MATH 111, MATH 112, one of {MATH 210, MATH 211}, and MATH 270. Moreover, depending on the elective courses chosen to complete this minor, additional prerequisites are required.

PHYS 211 General Physics I (4)

PHYS 212 General Physics II (4)

PHYS 251 Modern Physics (4)

Nine credits from the following:

ENGR 367 Electromagnetics (3)*

ENGR 371 Thermodynamics (3) or CHEM 437 Physical Chemistry I (3.5)

PHYS 328 Mechanics (3)*

PHYS 402 Quantum Mechanics (3)

PHYS 421 Particle Physics (3)*

PHYS 425 Solid State Physics (3)*

*Requires prerequisite(s); may increase the total credits required.

Statistics

Students completing a minor in statistics meet the stated requirements for entry-level statistical positions in business, government, and industry. Statistics Minors are also well prepared to pursue study in a quality graduate program in statistics.

Statistics Minor (18 credits)

STAT 291 Statistics for Mathematical Sciences I (3)

STAT 292 Statistics for Mathematical Sciences II (3)

12 additional credits of STAT 3xx/4xx courses (12)*

*Requires prerequisite(s), may increase the total credits required.

NURSING

Department Chair: Nancy Woods

Administrative Assistant: Beth Aumen

Clinical Liaison and

Placement Coordinator: Lisa Brubaker

Professor: W. Thuma-McDermond,

N. Woods, L. Zinsmeister

Associate Professors: T. Jankouskas

Associate Professors (Clinical Track): M. Derr, P. Linstedt,

D. Loop, K. Slabaugh

Assistant Professor: S. Jones

Assistant Professor (Clinical Track): N. Frank, M. Gross, J. Stroup

Majors

The Department of Nursing offers the Nursing (B.S.N.) major. The baccalaureate program at Messiah College is accredited by the Commission on Collegiate Nursing Education (www.aacn.nche.edu/ccne-accreditation). For information on Nursing graduate programs, see www.messiah.edu/info/20442/nursing_msn.

Mission

The Mission of the Department of Nursing at Messiah College is to prepare baccalaureate and graduate professional nurses within the context of liberal arts and sciences from a Christian worldview for beginning and advanced professional nursing roles. *The educational process facilitates the knowledge, skills, and perspectives needed to promote professional nursing excellence and lifelong learning.* The distinctives of a Messiah College nurse include commitment to academic excellence, service to others with insight and creativity, compassion through cultural humility, caring leadership, and reconciliation from a Christian worldview.

Program Options

The major is open to all individuals who are seeking their initial or beginning education in professional nursing (BSN). There is no option for individuals who have a license as a Registered Nurse to complete the BSN. See Graduate Programs for the RN to MSN option.

Undergraduate Program Goals

1. Prepare beginning professional nurses to provide holistic nursing care to persons and families.
2. Provide an environment in which students are encouraged to develop and integrate a dynamic Christian worldview into their personal and professional lives.
3. Provide an educational foundation for graduate study for students.
4. Provide student-centered, evidence-based teaching and learning for nursing practice, leadership, service, and reconciliation.

The philosophy of the undergraduate Nursing program is consistent with the Mission, Foundational Values, and Undergraduate Learning Objectives of Messiah College. Specifically, the philosophy reflects commitment to liberal education, leadership for quality care, patient safety, scholarship for evidence based practice, information management and patient care technology, health care policy, finance, and regulatory environments, inter-professional communication, health promotion, professionalism and professional values for the preparation of the baccalaureate generalist professional nurse as set

forth by the American Association of Colleges of Nursing (2008) in *The Essentials of Baccalaureate Education for Professional Nursing Practice*. Concepts from Neuman Systems Model are an integral part of the process of care in the clinical nursing courses. Central to and informing both the nursing program and the curriculum is the Christian worldview with its affirmation about God, humanity, and culture as understood from scripture and throughout history. Consistent with the Messiah College philosophy, the nursing faculty and students seek to integrate the practice of nursing with the belief that God is the source of all truth and the One who created persons to glorify God within their environment and society. Clinical nursing courses include experiences in college laboratories, in acute and chronic care settings, and in the community at large in the South Central Pennsylvania area, as well as in some selected international settings for students meeting special application standards. Non-clinical nursing courses provide students the opportunity to expand their knowledge and skills in preparation for their various professional roles and responsibilities.

Admission to the Nursing Major

Students are directly admitted to the nursing program but must meet progression criteria to advance in the nursing program and into clinical courses. Clinical courses are taught in a specific, progressive sequence and students must meet progression criteria to enroll in clinical courses according to that sequence. Clinical course size is limited and enrollment in clinical courses is competitive according to academic performance and other personal criteria. The following are necessary to enroll in the nursing clinical courses:

1. The student must have an **overall GPA of 3.00** and must have completed all stated prerequisites to **NURS 210 and NURS 211**. The achievement of a “C” or higher is required in all prerequisite and support courses to the major. One pre-requisite may be repeated for an earned grade less than “C”. Only one “C” is allowed in a science course. Prerequisite and support courses include:
 - BIOL 185/BIOL 186 Anatomy and Physiology I and II*
 - BIOL 189 Genetics for Health Professions
 - BIOL 382 Microbiology for Health Professions
 - CHEM 103 Chemical Science*
 - NURS 203 Historical and Conceptual Basis for Nursing*
 - NUTR 222 Nutrition Theory
 - PSYC 209/HDFS 209 Life Span Development*
 - SOAN 101 Introduction to Sociology and/or PSYC 101 Introduction to Psychology and/or HDFS 101 Foundations of Marriage and Family*
 - STAT 269 Introductory Statistics

*Designates the prerequisite courses to NURS 210 and NURS 211 that must be completed prior to clinical courses. Transfer students’ decisions will be made on an individual basis. Preference for enrollment in clinical courses will be given to students who have taken the majority of their prerequisite courses at Messiah College.
2. The student must receive satisfactory criminal history background checks. (See policy “Criminal History Background Checks” contained within the Code of Conduct.)
3. The student is expected to perform the same “**essential functions of the employment position**” as licensed registered nurses. (See policy “Performance and Essential Functions of Nursing.”)
4. The student’s moral and professional behavior must be consistent with the Pennsylvania Code of Professional and

Vocational Standards, the National Student Nurses Association Code of Academic and Clinical Conduct and the Messiah College Department of Nursing’s Document on Good Moral Character and Infractions. **Failure to demonstrate compliance with any of the aforementioned codes may result in denial of enrollment in clinical nursing courses.** (See policy “Code of Conduct.”)

5. Transfer students:

Internal transfer students applying to the nursing major:

- a. The student must meet with the Chairperson of the Department of Nursing or a designated faculty member to review the Nursing Curriculum Plan of Study.
- b. The student must complete a change of major form through the Registrar’s Office.
- c. Upon enrollment in the nursing major, internal transfer students must meet the admission criteria as previously stated in Nos. 1 to 4 above.

External transfer students applying to the nursing major:

- a. Students must apply to the College by April 15 (fall admission) and October 15 (spring admission) and meet all College admission criteria prior to the nursing admission review process.
- b. Students transferring from a college or university other than Messiah College must have an earned **cumulative GPA of 3.30** to be admitted to Messiah College as a nursing major.
- c. Depending upon the student’s type and number of transferred courses, it may take up to an additional four years to complete the nursing program.
- d. The achievement of a “B” or higher is required in all equivalent prerequisite courses in the major. Prerequisite courses include:
 - BIOL 185/BIOL 186 Anatomy and Physiology I and II
 - BIOL 189 Genetics for Health Professions
 - BIOL 382 Microbiology for Health Professions
 - CHEM 103 Chemical Science
 - NURS 203 Historical and Conceptual Basis for Nursing
 - NUTR 222 Nutrition Theory
 - PSYC 209/HDFS 209 Life Span Development
 - SOAN 101 Introduction to Sociology and/or PSYC 101 Introduction to Psychology and/or HDFS 101 Foundations of Marriage and Family
 - STAT 269 Introductory Statistics
- e. Transfer students applying to the nursing major are notified of acceptance upon completion of the application review process. Notification of acceptance into the nursing major will occur on an ongoing basis.
- f. Upon enrollment in clinical courses transfer students must meet the criteria as previously stated in Nos. 1 to 4 above.

External transfer students who have completed any courses with a nursing designation at another college or university:

- a. Students must apply to the College by April 15 (fall admission) and October 15 (spring admission) and meet all College admission criteria prior to the nursing admission review process.
- b. Students transferring from a college or university other than Messiah College must have an earned cumulative GPA of 3.30 to be admitted to Messiah College as a nursing major.
- c. The achievement of a “B” or higher is required in all equivalent prerequisite courses to the major. Prerequisite courses include:
 - BIOL 185/BIOL 186 Anatomy and Physiology I and II

BIOL 189 Genetics for Health Professions
 BIOL 382 Microbiology for Health Professions
 CHEM 103 Chemical Science
 NURS 203 Historical and Conceptual Basis for Nursing
 NUTR 222 Nutrition Theory
 PSYC 209/HDFS 209 Life Span Development
 SOAN 101 Introduction to Sociology and/or PSYC 101
 Introduction to Psychology and/or HDFS 101
 Foundations of Marriage and Family
 STAT 269 Introductory Statistics

- d. Students applying directly to the first clinical nursing course must have transcripts and descriptions of previous course content submitted to the Department of Nursing Admission and Progression Committee by November 15. Admission decisions are made on an individual basis upon review of college course work and space available in clinical nursing courses. Students interested in NURS 210 and NURS 211 placement must have completed at least 42 college credits prior to enrollment. The following prerequisite courses or their equivalents must be included in these credits:
- CHEM 103 Chemical Science
 - BIOL 185/BIOL 186 Anatomy and Physiology I & II
 - NURS 203 Historical and Conceptual Basis for Nursing
 - PSYC 209/HDFS 209 Life Span Development
 - SOAN 101 Introduction to Sociology and/or PSYC 101
 Introduction to Psychology and/or HDFS 101
 Foundations of Marriage and Family
- e. Admission decisions for junior and senior placement are made on an individual basis upon review of college course work and space available in clinical nursing courses. Students applying to the nursing major at junior or senior levels must have transcripts and descriptions of previous nursing course content submitted to the Department of Nursing Admission and Progression Committee by May 15 (fall admission) and November 15 (spring admission).

Applicants to the first clinical nursing course are given written notification of the admission decision in January.

Prior to enrollment in clinical nursing courses, all students are required to obtain and maintain the following:

1. A physical examination
2. Specified immunizations
3. Current Basic Life Support (BLS) certification from American Heart Association Health Care Provider course. CPR certification from any other organization WILL NOT be accepted.
4. Annual criminal history background checks
5. Drug screening
6. Health insurance coverage

Students must provide their own transportation for clinical experiences beginning with the first clinical nursing courses.

Upon graduation, employment opportunities are varied. Graduates are prepared to be employed as entry-level professional nurses in acute care hospitals, long-term or extended-care nursing homes, community home health agencies, international Christian missions, and public health and government agencies.

The program is approved by the State Board of Nursing of Pennsylvania and accredited by the Commission on Collegiate Nursing Education.

Registered Nurse Licensure

Graduates are eligible to take the National Council Licensure Examination for Registered Nurses (NCLEX-RN®) and upon passing the examination may be a registered nurse in any state or territory in the United States.

It is the graduate's obligation and responsibility to take and pass the NCLEX-RN® following the completion of the nursing program. The Department of Nursing administers practice examinations for the NCLEX-RN® in the senior year of the program. Students are counseled regarding preparation for the NCLEX-RN® on the basis of the results of the practice examinations and their total academic performance. Students must ultimately take the responsibility for and make their own decisions regarding their methods of preparation for the NCLEX-RN®.

The Professional Nursing Law for the Commonwealth of Pennsylvania (P.L. 409, No. 109, Section 6) states the following:

"The Board (State Board of Nursing) shall not issue a license or certificate to an applicant who has been convicted of a felonious act prohibited by the act of April 14, 1972 (P.L. 233, No. 64), known as "The Controlled Substance, Drug, Device and Cosmetic Act," or convicted of a felony relating to a controlled substance in a court of law of the United States or any other state, territory or country unless:

1. at least ten (10) years have elapsed from the date of the conviction;
2. the applicant satisfactorily demonstrates to the Board that he has made significant progress in personal rehabilitation since the conviction such that licensure of the applicant should not be expected to create a substantial risk of harm to the health and safety of patients or the public or a substantial risk of further criminal violations; and
3. the applicant otherwise satisfies the qualifications contained in or authorized by this act.

As used in this subsection the term "convicted" shall include a judgment, an admission of guilt or a plea of "nolo contendere."

BSN Program

Nursing (B.S.N.) (87 credits)

NURS 203 Historical and Conceptual Basis for Nursing (3)
 NURS 210 Health Assessment (3)
 NURS 211 Foundations of Nursing Practice (3)
 NURS 303 Pathophysiology (3)
 NURS 304 Pharmacology (3)
 NURS 305 Nursing Research I (2)
 NURS 310 Nursing Care of the Childbearing Family (4)
 NURS 311 Nursing Care of Adults and Older Adults I (4)
 NURS 312 Nursing Care of Adults and Older Adults II (4)
 NURS 313 Nursing Care of Infants, Children, and Adolescents (4)
 NURS 405 Nursing Research II (2)
 NURS 410 Psychiatric/Mental Health Nursing (4)
 NURS 411 Nursing Care of the Critically Ill (4)
 NURS 412 Community Health Nursing (4)
 NURS 413 Leadership in Nursing (3)
 NURS 495 Senior Practicum (3)
 NURS 496 Senior Seminar (3)

Required Supporting Courses

BIOL 185, 186 Human Anatomy and Physiology I, II (4, 4)
 BIOL 189 Genetics for Health Professions (3)
 BIOL 382 Microbiology for Health Professionals (4)
 CHEM 103 Chemical Science (4)

NUTR 222 Nutrition Theory (3)

Three credits from the following:

HDFS 101 Foundations of Marriage and Family (3)

PSYC 101 Introduction to Psychology (3)

SOAN 101 Introduction to Sociology (3)

PSYC 209/HDFS 209 Life Span Development (3)

STAT 269 Introductory Statistics (3)

PRE-HEALTH PROFESSIONS ADVISING

Coordinator of Pre-Health Professions Advising: Martha S. Smith

Pre-Health Advising

Pre-Chiropractic

Pre-Dentistry

Pre-Med (Allopathic - M.D.)

Pre-Med (Osteopathic - D.O.)

Pre-Occupational Therapy (4 yr.)

Pre-Occupational Therapy (3+)

Pre-Optometry

Pre-Pharmacy (4 yr.)

Pre-Pharmacy (3+ yr.)

Pre-Physical Therapy

Pre-Physician Assistant

Pre-Podiatry

Pre-Public Health

Pre-Veterinary

Pre-Medical and Pre-Health Advising

Messiah College has an excellent record of preparing students for lives of service and leadership in the healthcare professions. Students planning to enter the medical field often choose to major in biology, biochemistry, molecular biology, or chemistry. However, with careful course planning, some students choose to major in other disciplines and concurrently complete the requisite science courses. Pre-health students are served by both a faculty academic advisor and a health professions advisor. Faculty academic advisors help students plan their course work to meet requirements in QuEST and their major discipline. In a complementary manner, the Coordinator of Pre-Health Professions Advising works closely with students on issues related to their successful application to medical/allied health school.

Students typically begin their association with the Coordinator of Pre-Health Professions Advising during their first semester at Messiah College. They meet regularly with the Coordinator through graduation, and in some cases even after graduation, to carefully plan their curricular and co-curricular activities and to prepare a professional school application portfolio. The Coordinator of Pre-Health Professions Advising, the Pre-Health Professions Advising Committee, the Medical Awareness Society (pre-med club), and many other campus support programs offer assistance and enrichment in all aspects of the medical/allied health school preparation and application process. From academic support for achieving and maintaining a competitive GPA, to engaging in a wide variety of co-curricular and medically-related experiences and research programs, to successfully preparing for required admission tests, Messiah College offers an integrated experience that has proven successful in helping our students gain admission to the medical program of their choice.

Pre-Physical Therapy

Physical therapists must complete an accredited post baccalaureate doctoral degree graduate program to be eligible for licensing and to practice their profession. Students pursuing a career in physical therapy have several options available to them at Messiah College to prepare and compete for admission to such programs. Students may enroll in the pre-physical therapy concentration within the Applied

Health Science major offered in the Department of Health, Nutrition and Exercise Science for a curriculum that is tailored to meet the admission requirements of most graduate physical therapy programs. Alternatively, students may major in another discipline, such as biology or psychology, and work with their academic advisor and pre-health professions advisor to carefully choreograph their schedule to ensure that they satisfy their major and professional school requirements. Admission to physical therapy graduate programs is competitive, and Messiah College students have been very successful in gaining admission to top-rated programs including Arcadia University, where our graduates can attend through our articulation agreement with Arcadia's DPT program.

Biopsychology (B.S.)/Occupational Therapy (MSOT) Thomas Jefferson University Collaborative Master's Program. Messiah College offers an accelerated 3-2 program in conjunction with Thomas Jefferson University. Participating students complete three years of study at Messiah College in biopsychology and two years at Thomas Jefferson University to earn an undergraduate degree in Biopsychology (B.S.) and a MSOT in Occupational Therapy at Thomas Jefferson University.

Applied Health Science (B.S.)/Occupational Therapy (MSOT) Thomas Jefferson University Collaborative Master's Program. Messiah College offers an accelerated 3-2 program in conjunction with Thomas Jefferson University. Participating students complete three years of study at Messiah College in Applied Health Science and two years at Thomas Jefferson University to earn an undergraduate degree in Applied Health Science (B.S.) and a MSOT in Occupational Therapy at Thomas Jefferson University.

Biochemistry (B.A.)/Doctor of Pharmacy (PharmD) – University of the Sciences in Philadelphia Program. Messiah College offers an accelerated 3-4 program in conjunction with the University of the Sciences in Philadelphia. Participating students complete three years of study at Messiah College and four years at the University of the Sciences in Philadelphia to earn an undergraduate degree in Biochemistry (B.A.) and a Doctor of Pharmacy (PharmD) at University of the Sciences in Philadelphia.

School of Graduate Studies

Dean: Robert Pepper, Ph.D.

Finance and Projects Manager: Rebekah Ostby

The graduate school at Messiah College is an extension of the College's identity as a Christian college of the liberal and applied arts and sciences with a commitment to an embracing evangelical spirit rooted in the Anabaptist, Pietist and Wesleyan traditions of the Christian Church and a mission to educate men and women toward maturity of intellect, character and Christian faith in preparation for lives of service, leadership and reconciliation in church and society. This is accomplished through a variety of graduate level programs designed to prepare students to enter professions, advance within their profession, or enhance their knowledge or skills. Messiah College offers the following graduate programs in an online, on campus and hybrid format. Information related to the graduate programs is available: www.messiah.edu/gradprograms, including graduate certificates and advanced graduate certificates. The School of Graduate Studies offers the following programs:

Business & Leadership

- MA in Strategic Leadership (30 credits)
- MBA with concentrations (36 credits)
 - Dietetics
 - Digital Marketing
 - Management
 - Organizational and Strategic Communication
 - Social Entrepreneurship
 - Strategic Leadership

Conducting

- MM in Conducting with tracks (30 credits)
 - Wind Conducting
 - Orchestral Conducting
 - Choral Conducting

Counseling

- MA in Counseling with tracks (60 credits)
 - Clinical Mental Health
 - School Counseling
 - Marriage, Couple & Family Counseling

Dietetics

- Dietetic Internship Certificate (19 credits)

Education

- MEd with tracks (30-39 credits)
 - Curriculum and Instruction
 - Curriculum and Instruction with Online Teaching
 - Online Teaching
 - Special Education
 - Special Education with Online Teaching
 - Special Education (Grades 7-12) with PDE certification
 - Special Education (Grades Pre-K–8) with PDE certification
 - Teaching English to Speakers of Other Languages (TESOL)
 - Teaching English to Speakers of Other Languages (TESOL) with Online Teaching
 - Teaching English to Speakers of Other Languages: PDE ESL Program Specialist Certification

Higher Education

- MA in Higher Education with concentrations (36 credits)
 - Academic Support
 - College Athletics Leadership
 - Individualized
 - Strategic Leadership
 - Student Affairs

Nursing

- MS in Nursing (39 credits)
 - Nurse Educator: BSN to MSN
 - Nurse Educator: RN to MSN
- Doctor of Nursing Practice (86 credits)
 - Family Nurse Practitioner

Occupational Therapy

- Master of Occupational Therapy (80 credits)

Post-Master's Certificates of Advanced Graduate Studies (CAGS)

- Counseling (12 credits)
- Conducting (12 credits)
- Nursing Education (15 credits)

Post-Baccalaureate Certificates of Graduate Studies

- Autism Spectrum Disorders (12 credits)
- Bilingual Education and TESOL (15 credits)
- Dietetic Internship (19 credits)
- Digital Marketing (15 credits)
- Management (15 credits)
- Online Instruction (12 credits)
- Online ESOL Instruction (12 credits)
- Online Special Education Instruction (12 credits)
- Organizational and Strategic Communication (15 credits)
- Social Entrepreneurship (15 credits)
- Special Education (24 credits)
- Strategic Leadership (15 credits)
- Teaching English to Speakers of Other Languages (12-16 credits)
- Teaching English to Speakers of Other Languages with Online Teaching (18 credits)

Pennsylvania Department of Education (PDE) Teaching Certifications

- Special Education, Certification in Grades Pre-K-8 (24 credits)
- Special Education, Certification in Grades 7-12, (24 credits)
- English as a Second Language Program Specialist, Certification in Grades K-12 (16 credits)
- Autism Spectrum Disorders PDE Endorsement in Grades K-12 (12 credits)

Undergraduate Course Offerings

ACCT 131 Survey of Accounting (3)

The role of accounting in business, preparation and use of financial statements, contents of certain accounts, business forms, and budgeting concepts, needed for external and internal decision-making. Does not fulfill requirements for Department of Business majors with the exception of Marketing. Offered Spring terms.

ACCT 141 Financial Accounting (3)

Accounting procedures, use of special journals, general and subsidiary ledgers, preparation of financial statements, and contents of accounts and external reporting concepts.

ACCT 242 Managerial Accounting (3)

Uses information gathered from accounting records to prepare internal reports, compile analyses, and prepare recommendations to assist management in control and decision making. Prerequisite: ACCT 141.

ACCT 247 Basic Income Tax (3)

Provisions of the Internal Revenue Code and the revenue codes of the state of Pennsylvania and various local governments as they relate to low income, elderly, and handicapped individuals are presented. Part of the course requirements include the preparation of tax returns during the tax filing season.

ACCT 291 Tax Practicum (2)

Students will receive training in the provisions of the Internal Revenue Code and the revenue code of the state of Pennsylvania and various local governments as they relate to low income, elderly, and handicapped individuals. Students will apply their training to preparations of tax returns during the tax filing season.

ACCT 301 Intermediate Accounting I (3)

Critical study of generally accepted accounting principles as they relate to financial reporting, including theoretical foundations, accounting model and information processing, financial statements, future and present value, and inventory management and valuation. A component of this course is dedicated to learning writing and presentation skills related to the practice of accounting. Prerequisite: ACCT 242.

ACCT 302 Intermediate Accounting II (3)

Analysis of accounting valuation problems and procedures, including discussion of revenue and expense recognition, operational assets, property, plant and equipment, intangible assets, investments in debt and equity securities, short-term and long-term liabilities, and financial statement analysis. A component of this course is dedicated to learning letter- and memo-writing skills related to the practice of accounting. Prerequisite: ACCT 301.

ACCT 303 Intermediate Accounting III (3)

Analysis of more complex accounting topics, including leases, pension plans, income taxes, corporation formation, stockholders' equity and retained earnings, earnings per share, statement of cash flows, and changes and error corrections. A component of this course is dedicated to working within groups and learning report writing and presentation skills related to the practice of accounting. Prerequisite: ACCT 302.

ACCT 343 Cost Accounting (3)

Job order and process cost accounting as well as standard cost systems. Includes the quantitative aspects of managerial accounting, cost-volume-profit analysis, budgeting, and the concept of relevant costs in managerial decisions. A computer spreadsheet program is utilized for each topic. Prerequisite: ACCT 242.

ACCT 347 Federal Individual Income Taxes (3)

Identify and apply provisions of the Internal Revenue Code that relate to individuals. Use tax laws and tax research to determine liabilities, examine case studies and prepare tax returns. Prerequisite: ACCT 141.

ACCT 348 Federal Business Taxes (3) Identify and apply provisions of the Internal Revenue Code that relate to sole proprietorships, partnership, corporations, estates and trusts. Use tax laws and tax research to determine liabilities, examine case studies, and prepare tax returns. Prerequisite: ACCT 141.

ACCT 360 Topics in Accounting (3) Study of selected special topics in accounting. Content dependent on faculty and student interest. Prerequisites dependent on course topic.

ACCT 391 Accounting Practicum (1-3)

Practical business-related experience under professional supervision or supervised participation as a teaching assistant or in department courses. Open to juniors and seniors in the Department of Business. Others by department approval. This course does not meet major requirements.

ACCT 440 Advanced Accounting (3)

Accounting for partnerships and business combinations with particular emphasis on consolidated financial statements. Also includes topical issues in accounting. Prerequisite: ACCT 301.

ACCT 442 Auditing (3)

Study of an auditor's professional responsibilities within the accounting profession. Emphasis on the purposes and kinds of audits, systems of internal control, audit objectives and procedures, and financial reporting including audit and other reports. Prerequisite: ACCT 301.

ACCT 448 Regulation (3)

Comprehensive review of federal taxation, ethics, professional and legal responsibilities, and business law and the skills needed to apply that knowledge. Prerequisites: BUSA 381 and ACCT 347.

ACCT 449 Financial Accounting and Reporting (4)

Comprehensive review of the knowledge of accounting principles generally accepted in the United States of America (GAAP) for business enterprises, not-for-profit-organizations, and governmental entities, and the skills needed to apply that knowledge. Content covered in this course includes financial accounting concepts and standards, and their application. Prerequisite: ACCT 302.

ADED 139 Wilderness Encounter (3)

Offered in J-term, this introductory course involves an extended wilderness trip utilizing adventure education pedagogy to probe students' relationships with God, others, self, and creation. Hiking, backcountry camping, and Leave No Trace are some of the skills emphasized. Course fee dependent upon travel costs; typical range is \$1300-3000.

ADED 180 Wilderness First Responder (3)

Backcountry medicine course applying principles of advanced first aid in a wilderness setting. This course meets requirements for WFR certification through SOLO. Course fee \$145.

ADED 250 Foundations of Adventure Education (3)

An exploration of the philosophical, psychological, sociological, and historical foundations of adventure programming. Course includes terminology, key organizations, influential individuals, related theories, and professional opportunities.

ADED 251 Outdoor Leadership and Teaching Methods (3)

A 21-day field-based course designed to develop outdoor leadership skills and teaching methods. This course utilizes curriculum established by the Wilderness Education Association (WEA) which emphasizes judgement and decision making as a key component of outdoor leadership. Adventure Education majors/minors only. Prerequisite: ADED 139. Course fee \$700. Offered alternate May terms: 2019, 2021.

ADED 281 Caving Instructor (2)

This course is designed to develop the skills and knowledge needed to engage in caving activities; safely lead groups on a caving experience; and design, facilitate, and assess educational and/or developmental experiences to help groups meet goals utilizing caving. Topics include equipment, caving techniques, cave formations and lifeforms, minimizing cave impact, risk management, rescues, designing caving experiences, and group facilitation. The skills taught in this course are consistent with the skills endorsed by the National Speleological Society. Course fee \$150. Offered alternate Spring terms:, 2018,, 2020. Restricted to Adventure Education majors and minors.

ADED 282 Rock Climbing Instructor (3)

This course is designed to develop the skills and knowledge needed to engage in top rope rock climbing activities; safely lead groups on a top rope climbing experience; and design, facilitate, and assess educational and/or developmental experiences to help groups meet goals utilizing rock climbing activities. Topics include equipment, climbing techniques, anchor building, belaying, risk management, rescues, site management, designing climbing experiences, and group facilitation. The skills taught in this course are consistent with AMGA and PCIA standards. Course fee \$150. Offered alternate fall semesters:, 2018, 2020. Restricted to Adventure Education majors and minors.

ADED 286 Paddlesports Instructor (3)

This course is designed to develop the skills and knowledge needed to engage in various paddlesport activities; safely lead groups in these activities; and design, facilitate, and assess educational and/or developmental experiences to help groups meet specific goals utilizing paddlesport activities. Paddlesport activities taught in this course include canoeing, kayaking, white water rafting, and swift water rescue. These skills will be follow standards created by the American Canoe Association and may result in Skill Assessment documentation from the ACA National Office. Course fee \$150. Restricted to Adventure Education majors and minors. Offered alternate fall semesters.

ADED 288 Challenge Course Facilitation and Management (3)

This course is designed to develop the skills and knowledge needed to safely lead groups through both a low and high challenge course experience; design, facilitate, and assess educational and/or

developmental experiences to help groups meet goals utilizing challenge course activities; and manage a challenge course. Topics include ice breakers, trust activities, initiatives, spotting, high elements, dynamic and static belay systems, equipment, rescues, risk management, program management, designing challenge course experiences, spiritual integration, and group facilitation. The skills taught in this course are consistent with ACCT standards for Challenge Course Practitioners. Restricted to Adventure Education majors and minors. Offered Spring terms.

ADED 301 Leadership and Group Dynamics (3)

Study of theories and principles of adventure leadership. Focus on framing, facilitating, and debriefing adventure education activities. Exploration of group dynamics in field-based adventure experiences.

ADED 331 Adventure Processing and Facilitation (3)

This theoretical course focuses on facilitating individual and group processing of adventure experiences for the purpose of meaning making. Educational theories will lay the foundation for processing techniques and tools that enhance reflection, generalization, and transfer of learning. Topics include: reflection and learning theories, group facilitation skills, debriefing, communication skills, processing techniques and tools, generalization n and transfer of learning, processing with diverse demographics, and processing towards outcomes. Prerequisite: ADED 288. Restricted to Adventure Education majors and minors. Offered alternate Spring semesters: 2019, 2021.

ADED 351 Programming and Trip Design (3)

This course is designed to assist students in developing leadership and programming skills useful in a variety of leisure settings with emphasis on adventure education. Theoretical principles will provide the basis for practical experience. An emphasis on servant leadership will permeate the course.

ADED 352 Trip Implementation and Evaluation (3)

Practical experience requiring the student to implement a wilderness trip of their own design. The field portion of this course occurs during spring break when students lead a wilderness experience. Provides experience with all aspects of a wilderness trip including planning, marketing, logistics, implementation, budget, and evaluation. Prerequisites: ADED 251 and ADED 351.

ADED 391 Adventure Education Practicum (1-3)

Practical experience related to adventure programming. May involve experiences such as instructional aide, adventure programming facilitator, project supervisor, or off-campus employment. Prerequisite: Department approval.

ADED 401 Advanced Technical Skills (3)

The purpose of this course is to expose students to a variety of advanced adventure skills such as rope rescue systems, winter camping, white water canoeing, and lead rock climbing. Students will have the opportunity to pursue professional certifications such as Leave No Trace Master Educator and American Canoe Association Instructor. Prerequisite: ADED 251. Course fee \$500.

ADED 411 Senior Seminar for Adventure Education Majors (3)

Serves as a capstone course for adventure education majors. Stresses reading current literature, discussing ethical ideas, and exploring the relationship between Christian faith and adventure education.

ADED 485 Internship (4–8)

Experience in an organized adventure education or related field setting with professional supervision (Pass/Fail grade only). Required of all adventure education majors. Limited to senior status.

ADED 491 Independent Study in Adventure Education (1–3)

Subject to College and Departmental guidelines.

ADED 497, 498 Major Honors (3, 3)

Independent research program for students who have a strong academic record for a minimum of five previous semesters at college study. Overall GPA of 3.5 and Department approval required for enrollment.

APHS 170 Concepts of Conditioning (2)

Introduction to the basic foundations of physical fitness and wellness concepts. Particular emphasis is placed on the fitness components of cardiovascular endurance, body composition, muscle strength and endurance, and labs emphasizing flexibility. Students design and implement individualized exercise programs, and significant class time is devoted to vigorous sport and exercise sessions.

APHS 201 Principles of Exercise Science (3)

An introduction to human physiological systems and their response to exercise. Topics include basic metabolism, neuromuscular function, the cardiovascular system, and principles of exercise training. Application of physiological principals will explore the body's adaptation to acute and chronic exercise. Offered Spring term only.

APHS 210 Exercise Psychology (3)

The course provides an overview of psychological issues related to exercise and health behavior, including and understanding the concepts, principles and theories that relate to the practice of promoting and supporting regular exercise participation, patterns, and modification. Emphasis will be given to the psychological influences and consequences of exercise participation on positive health behaviors, and the impact of exercise on mental health states such as depression and anxiety. Social influences that impact exercise behavior will also be explored. Alternate years: 2018-2019, 2020-2021.

APHS 215 Chronic Disease and Exercise (3)

The course provides students with a basic understanding of the epidemiology of chronic disease and the role exercise has in the management and treatment of the disease. The course will examine diseases such as cardiovascular disease, metabolic disorders, musculoskeletal disease/disorders, and pulmonary disease. In addition, the course will address intervention strategies for risk reduction and chronic disease prevention for the individual as well as the broader community.

APHS 220 Health Promotion Management (3)

The course provides the student with the history and current practice of health promotion and fitness instruction that can be used in a variety of health and exercise settings (e.g., corporate fitness, schools, non-profit organizations, hospital based programs, or service programs). Students will survey current health promotion topics, how to implement the administrative structure to conduct the programs, and assessment tools to evaluate the programs.

APHS 225 Research Methods and Statistical Analysis (3)

A course designed to introduce the theoretical basis and application process of research in the field of exercise science. The course explores the concepts of the research process, research design, ethical issues for the use of human subjects, and organizing a literature review. The students will also be introduced to the statistical concepts of descriptive and inferential statistics; including correlation, t-tests, ANOVA, factorial design and regression analysis.

APHS 271 Kinesiology (3)

Detailed study of human balance and motion, including the application of physical laws to action of bones, muscles, and their articulations. Practical application to physical education activities.

APHS 301 Exercise Physiology (4)

Physiological adjustments of major organs and systems to exercise, including theories and principles for improving performance. Examination of current literature and research. An analysis of ethical and physiological implications of using scientific technology to enhance performance. Course fee \$65.

APHS 310 Elite Athletic Performance (3)

The course will utilize students' backgrounds in biomechanics and exercise physiology to examine training methods and models that facilitate sport performance at the elite level. Profile characteristics of elite athletes will be presented as well as the relationship between inherited and acquired capacities responsible for elite performance. Attention will also be given to ways that technology is currently being used to enhance elite athletic performance. Prerequisite: APHS 301. Alternate Spring terms: 2018, 2020.

APHS 315 Stress Testing and ECG Interpretation (3)

The course provides the student with an understanding of basic electrocardiogram interpretation for the normal and the diseased heart at rest and during graded exercise testing. The course will review the anatomy and physiology of the cardio respiratory system and will include a survey of electrocardiography, including the topics of rate, rhythm, hypertrophy, axis determination, atrial and ventricular arrhythmias, conduction defects, myocardial ischemia, and myocardial infarction. Prerequisite: APHS 301. Offered Spring-term, alternate years.

APHS 325 Applied Human Physiology (3)

An in-depth exploration of human physiological systems and how they interact normally and in response to physiological stressors such as disease, aging, environmental stress, and exercise. Prerequisite: APHS 301. Offered Spring terms.

APHS 330 Advanced Research Methods (1–3)

Students will carry out the research project proposed in the Research Methods course under the direction of faculty mentors. The semester will culminate with the submission of the final two chapters (results and discussion) and a presentation at a departmental colloquium. Prerequisite: APHS 225.

APHS 360 Exercise Testing and Prescription (3)

Practical experience in using physiological laboratory instrumentation. Emphasis on appropriate application of test results to the planning of individual fitness programs. Populations discussed include adults, elderly, cardiac patients, and athletes. Particular emphasis on data collection using bicycle ergometers and treadmills. Includes two hours laboratory per week. Prerequisite: APHS 301 or APHS 201.

APHS 391 Applied Health Science Practicum (1-3)

Practical experience related to health, physical education, athletic or leisure programming, or health and fitness. May involve experience as an instructional aide, athletic trainer, recreational sports, or off-campus employee. Prerequisite: departmental approval.

APHS 410 Topics in Health and Exercise Science (2-3)

Topics will be related to current trends and research in health and exercise science. Prerequisite: APHS 301.

APHS 412 Senior Seminar for Applied Health Science (3)

This capstone course will investigate contemporary exercise science issues with a look to preparing students as future servant-leaders in society. Topics for discussion will include preparation for the senior capstone exam, current exercise trends in society, popular nutritional supplements, national certifications related to personal training and conditioning, physical therapy and graduate school expectations, and vocational issues. Through readings and class discussions, students will formulate a personal written philosophy articulating their mission as a Christian professional in the field of exercise science.

APHS 415 Advanced Exercise Physiology (3)

The course provides an advanced study of the physiological responses and adaptations to physical activity. Emphasis is placed on human bioenergetics, skeletal muscle structure and function, and the cardiovascular system. The critical analysis of the effect of exercise on human physiologic function will include in-depth examination of current literature. Prerequisite: APHS 301. Alternate years: 2020-2021.

APHS 491 Independent Study in Applied Health Science (1-3)

Independent research with faculty supervision.

APHS 497, 498 Major Honors (3,3) Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. GPA of 3.5 and departmental approval required for enrollment.

ART 103 Introduction to Drawing (3)

Introduction to the basic materials, methods, and subjects of drawing. Observations and development of imagery are stressed. Meets QuEST Arts requirement; does not meet major requirements for art majors. Course fee \$35.

ART 107 Introduction to Painting (3)

Introduction to the history and process of oil painting. Emphasizes studio work, with attendance at museum exhibits and research of master and modern painters to build appreciation and knowledge of the medium. Includes instruction in drawing, color theory, painting from nature, and abstraction. Meets QuEST Arts requirement; does not meet major requirements for art majors. Course fee: \$35.

ART 110 Visual Literacy (3)

This class introduces students to basic creative problem-solving skills, processes, and methods in the analysis and creation of visual art. Students will solve visual problems and develop skills in concept/content development through the creation of various forms of visual art in a studio environment (majors only; does not meet QuEST Arts requirement). Course fee \$35.

ART 112 Introduction to Graphic Design Problem Solving (3)

An introduction to conceptual approaches for solving visual communication problems effectively and creatively within the artistic

discipline of graphic design. Meets QuEST Arts requirement; Graphics course. Course fee \$35.

ART 130 Introduction to Computer Art (3)

Introduction to the history and use of the computer as a creative visual tool. Images are created with paint and drawing software as well as by manipulation of scanned objects and video-capture. Meets QuEST Arts requirement; does not meet major requirements for art majors.

ART 132 Introduction to Printmaking (3)

An exploration of three unique areas of the world of printmaking, examining one technique per week. Digital presentation, participatory demonstrations, and bi-weekly critiques will accompany each process. Participants will design and execute a series of proofs relating to the development of each image, and print a limited edition of their best project. Meets QuEST Arts requirement; does not meet major requirements for art majors. Course fee: \$35.

ART 136 Paper Processes (3)

Introduction to various papermaking techniques, paper surface design, and bookmaking structures. Technical, aesthetic, and historical components are emphasized. Meets QuEST Arts requirement; three-dimensional course. Course fee \$35.

ART 143 Introduction to Watercolor (3)

Introduction to the materials and techniques of painting in watercolor, with an appreciation of the accomplishments in this exacting medium. Meets QuEST Arts requirement; does not meet major requirements for art majors. Course fee: \$35.

ART 171 Foundations of Drawing (3)

Introduction to the materials and processes of drawing. Observation, spacial organization, and the development of imagery are stressed. Meets QuEST Arts requirement. Course fee \$35.

ART 182 Color and Design (3) Study of the elements and principles of two-dimensional design, with an emphasis on color. Meets QuEST Arts requirement. Course fee \$35.

ART 201 Introduction to Art Education (1)

Overview and analysis of art education in historical, philosophical, and sociological perspective, with emphasis on the relationship between art education and general education in schools. Students will spend ten hours in the field.

ART 211 Computer Art and Imaging (3)

An introduction to the computer as a tool for image making, exploring drawings using pressure sensitive tablets and creating collages and layered images. Utilization of various input devices and output devices. Meets QuEST Arts requirement; graphics course. Course fee \$35.

ART 215 Painting I (3)

Introduction to the materials and techniques of oil painting, including preparation of supports. Emphasizes color, surface, and composition. Meets QuEST Arts requirement; two-dimensional course. Course fee \$35.

ART 220 Ceramics I: Wheel Techniques (3) Introduces the basic skills of wheel-thrown forms that are primarily utilitarian. Emphasizes clay making, glazing, and firing techniques. Meets QuEST Arts requirement; three-dimensional course. Course fee \$35.

ART 221 Ceramics I: Handbuilding (3)

Introduces the various techniques of pinching, coiling, slab building, and casting which are used in both a utilitarian and sculptural manner. Clay making, glazing, and firing techniques are emphasized. Meets QuEST Arts requirement; three-dimensional course. Course fee \$35.

ART 224 Dyeing, Printing and Manipulating Fabric (3)

Learning the techniques of controlled dyeing of fabric will be the core of this course. Experimentation with various surface processes such as shibori, batik, resist dyeing, printing, devore' burn out techniques and direct painting on cloth will be explored. Meets QuEST Arts requirement; three-dimensional course. Course fee \$35.

ART 232 Screen Printing (3)

Introduction to the techniques of screen printing, including cut paper, film, glue-based, and photographic stencil methods. Meets QuEST Arts requirement; two-dimensional course. Prerequisite: ART 103 or ART 171. Course fee \$35.

ART 234 Weaving Techniques (3)

The course will allow the student to investigate various processes of interlacing. Students will work primarily on the loom learning multi harness weaving, Ikat dyeing with additional off-loom exploration such as basketry techniques. Meets QuEST Arts requirement; three-dimensional course. Course fee \$35.

ART 236 Graphic Design and Visual Culture: Seeing, Thinking, Making (3) This introductory course explores how graphic design shapes and makes meaning in the context of visual culture. A foundation of skills in typography, image creation, and design will be developed utilizing a range of hands-on and digital processes. Students will observe, analyze, and respond to examples of visual culture through the creation of various design projects. The class will trace key developments in historical and contemporary design issues and practice. Students will creatively and critically probe aspects of style, form, representation, and content as "meaning makers" in the broader visual culture. Meets QuEST Arts requirement; graphics course.

ART 237 Typography and Visual Communications (3)

Introduction to the formal, historical, and communicative aspects of typography within the practice of graphic design and visual communication. Students will develop technical, professional, and conceptual skills, and will explore the creative and expressive use of typography. Meets QuEST Arts requirement; graphics course. Course fee \$35.

ART 251 Photography (3)

Introduction to the film camera and darkroom techniques. Emphasizes using the camera as a tool for seeing, understanding imagery, and composition. Meets QuEST Arts requirement; two-dimensional course. Course fee \$35.

ART 262 Construction and Assemblage (3)

An introduction to constructed and assembled sculpture. Includes techniques of construction in wood, steel, and mixed media. Meets QuEST Arts requirement; three-dimensional course. Course fee \$35.

ART 263 Carving (3)

An introduction to carving in wood and stone, with an emphasis on the acquisition of basic skills and the development of form. Meets QuEST Arts requirement; three-dimensional course. Course fee \$35.

ART 271 Intermediate Drawing (3)

Continuation of study in observation and spatial organization and mixed media processes. Conceptual development is emphasized. Two-dimensional course. Prerequisite: ART 171.

ART 282 Form, Space, and Media (3)

Introduction to the principles and processes of organizing materials in space. Meets QuEST Arts requirement; three-dimensional course. Course fee \$35.

ART 283 Furniture Design (3)

An introduction to the design and construction of furniture. Three-dimensional course. Prerequisite ART 282 or ART 262.

ART 291 Art Practicum (1-3)

Work experience under professional supervision in gallery, museum, curatorial, public arts groups, graphic arts, photo studios, ad agencies, printers, and other work experiences related to the visual arts. Open to art majors, sophomores and above, who have completed at least three art courses.

ART 308 Installation and Public Sculpture (3)

Installation Art and Public Sculpture investigates contemporary approaches to making sculptural environments. The course will combine a variety of elements to further explore the concept of the viewer interaction with various spatial contexts. Three-dimensional course. Course fee \$35.

ART 312 Digital Prints: Concepts and Structures (3)

Students will explore and develop an awareness of digital printmaking techniques through image series, book structures and large format printing. Various software, drawing, and image capture will be covered. Critical evaluation and aesthetic understanding of the print/book as a physical object, and consideration of papers, substrates, for archival quality editions will be studied. Meets QuEST Arts requirement; graphics course. Course fee \$35.

ART 315 Painting II (3)

Exploration of both abstraction and observation with a view toward developing a personal direction for subject matter and use of materials. Two-dimensional course. Prerequisite: ART 215. Course fee \$35.

ART 320 Advanced Ceramics (3)

Sustained work in one or two areas of ceramics to facilitate conceptual and technical growth. Three-dimensional course. Prerequisite: ART 220 or ART 221. Course fee \$35.

ART 330 Intaglio and Relief Printmaking (3)

Introduction to the techniques of intaglio printmaking including drypoint, engraving, and etching. Processes of relief printing including collagraph, monotype, and linoleum cutting are also explored. Meets QuEST Arts requirement; two dimensional course. Course fee \$35.

ART 331 Art Instructional Design and Assessment (3)

Students develop instructional planning and assessment skills specific to the art education classroom. Emphasis on critical thinking and decision-making processes necessary for developing art instruction and evaluating the achievement of learning goals in elementary and secondary art learning environments. Topics include instructional goals, learning outcomes, content analysis, classroom assessment strategies, instructional objectives, instructional technology,

instructional strategies and sequences, lesson planning, and unit planning. Prerequisites: EDUC 203/PSYC 203. Admission to the Teacher Education Program.

ART 332 Lithography (3)

Introduction to the techniques of lithography on aluminum plates and lithographic limestone slabs. Meets QuEST Arts requirement; two-dimensional course.

ART 334 Wearable Art (3)

Draping and flat patterning techniques of clothing construction will form the core of this course coupled with advancing sewing skills: both machine and hand stitching. The student will use this skill to create and embellish wearable art forms of various complexities. Meets QuEST Arts requirement; three-dimensional course. Course fee \$35.

ART 336 Design for New Media (3)

This course provides a foundation of skills and concepts that are necessary to design effective and compelling visual communication in the context of new and emerging digital technologies. Areas of exploration may include web design, linear and interactive-based online animations, design or screen-based multi-media presentations, and interface design for on-screen and hand-held devices. Graphics course. Prerequisite: One of {ART 112, ART 236, or ART 237}. Course fee: \$35.

ART 337 Graphic Design and Professional Practice (3)

This course explores design projects that reflect “real-world” professional practices found in design studios, agencies, in-house design departments, and publishing houses. Students will gain experience in prime design projects such as corporate identity and branding design, advertising design, and editorial design. These practices will be considered within the context of client and user-based communication objectives. Students will learn the preparation of digital files for commercial printing and mass production, design presentation skills, consider portfolio development options, and create self-promotional materials for career and vocational advancement. Graphics course. Prerequisite: One of {ART 112, ART 236, or ART 237}. Course fee \$35.

ART 338 Digital Illustration: Editorial and Narrative (3)

Development of conceptual, technical and aesthetic capabilities—utilizing a range of digital software and processes—to effectively create images that illustrate, communicate, and interpret ideas and content for various clients and audiences. Graphics course. Prerequisite: One of {ART 211 or ART 312}. Course fee \$35.

ART 339 Illustration (3)

Consideration of the image as a means of communication. Emphasizes text/picture interaction, technique, and composition. Two-dimensional course. Prerequisite: ART 271.

ART 347 Publication Portfolio: Design as Service (3)

Application of design principles—technical, professional, and conceptual skills—to publication graphics including logo design and application, brochures, booklets, banners, type applications, posters, campaigns, journal design, and more. Students will be linked with non-profit and on-campus design needs to produce printed design work for their portfolio. Graphics course;. Prerequisite: ART 237.

ART 352 Digital Photography (3)

This course explores digital image capture and using color as an aesthetic tool in the hands of the creative commercial or expressive fine art photographer. Students will gain an extensive understanding of RAW file capture, digital workflow and editing, creative camera controls, controlled lighting possibilities and in-depth imaging software skills using PhotoShop, Bridge and Lightroom. Areas of investigation will also include scanning traditional film negatives to incorporate into and with digital captured files, photographic inkjet printing techniques, and the use of creative inkjet printing materials. Historical and contemporary issues related to color photography will also be explored. Two-dimensional course. Prerequisite: {ART 211 or ART 251}. Course fee \$35.

ART 353 Historical Techniques and Advanced Photography (3)

Expanding upon skills learned in Photo I this course is designed with an emphasis on advanced exposure controls through the use of the Zone System using medium and large format cameras, as well as, image manipulation using traditional fine art photographic papers, a variety of developers and advanced toners. Included in the course will also be the exploration of using larger negatives or digitally enlarging negatives for use with non-silver, hand-applied photographic printmaking, and may include gum printing, cyanotype, van dyke prints, albumen, iron salt prints and platinum/palladium printing. Two-dimensional course. Prerequisite: ART 251.

ART 355 Elementary Curriculum Strategies (3)

Preparation for teaching visual arts in grades K–6. Examines children’s artistic development and explores applicable art programs, materials, and teaching techniques. Includes observation and participation in the public schools. Prerequisite: Admission to the Teacher Education Program.

ART 356 Secondary Curriculum Strategies (3)

Preparation for teaching visual arts in grades 7–12. Examines artistic development of adolescent learners and explores appropriate teaching strategies, materials, and art-making activities. Includes observation and participation in the public schools. Prerequisite: Admission to the Teacher Education Program.

ART 360 Topics in Studio Art (3)

Selected topics in art not currently included in course offerings. Topics may include special processes, unique projects, and theory.

ART 364 Casting (3)

An introduction to casting in various materials including clay, plaster, concrete, resin-impregnated glass, and metals. Meets QuEST Arts requirement; three-dimensional course. Course fee: \$35.

ART 371 Advanced Drawing (3)

Execution of original work with advanced technical proficiency. Two-dimensional course. Prerequisite: ART 271. Course fee \$35.

ART 372 Figure Drawing (3)

Introduction to the human figure as a subject drawing. Advanced techniques and experimentation with mixed media processes. Two-dimensional course. Prerequisite: ART 171. Course fee: \$35.

ART 407 Student Teaching Seminar (1)

A seminar emphasizing disciplinary content issues that are specific to visual arts teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional

learners; instructional technology applications; and professional development. Prerequisite: Admission to the Professional Semester.

ART 411 Advanced Computer Art (3) Creation of a body of work that demonstrates growth and maturity towards conceptual, technical, and aesthetic mastery of computer processes and application. Graphics course. Prerequisite: ART 211 or ART 312.

ART 415 Painting III (3)

Continued development of individual techniques and imagery. Two-dimensional course. Prerequisite: ART 315. Course fee \$35.

ART 420 Designer as Author: Book Design, Zines (3)

(Alternate course to supplement ART 347 Publication Portfolio: Design as Service.) There is a need for designers to be content providers throughout visual media. Students will design books, magazines, and more in this course. Through the design processes of several projects, one will be fully produced and delivered to its intended audience. Service projects where the designer initiates and exercises control over the product will be encouraged. Graphics course. Prerequisite: ART 237. Course fee: \$35.

ART 431 Motion Design: Video, Animation, Communication (3)

This course introduces students to the formal, expressive, and communicative aspects of graphic design and typography within the context of motion, sound, video, and animation for time-based electronic media and technologies. Students will explore design projects that develop skills and concepts in narrative sequencing and editing, utilizing a range of digital software. Graphics course. Prerequisite: At least one of the following: ART 112, ART 236, or ART 237. Course fee: \$35.

ART 437 Graphic Design III: Advanced Typography and Design (3)

This course builds on Graphic Design I and II, bringing together serious thought about design issues and solves demanding and complicated design problems. Graphics course. Prerequisite: ART 337.

ART 438 Advanced Textile Processes (3)

Execution of a cohesive body of work demonstrating technical excellence in a specific area of study. Three-dimensional course. Prerequisite: Any two of the following: ART 224, ART 234, ART 334. Course fee: \$35.

ART 442 Advanced Printmaking (3)

Study in one process, with an emphasis on original imagery and technical accomplishment. Two-dimensional course. Prerequisite: ART 103 or ART 171 and two of the following: ART 232, ART 330, ART 331. Course fee: \$35.

ART 462 Advanced Sculpture (3)

Execution of a body of work reflecting growth and maturity. Three-dimensional course. Prerequisite: Any two of the following: ART 262, 263, or 364. Course fee: \$35.

ART 483 Advanced Graphic Design and Digital Art (3)

Execution of original work in design and digital art areas with advanced technical proficiency in preparation for senior exhibition. Graphics course. Prerequisite: 12 concentration credits.

ART 485 Advanced Three-Dimensional Studies (3)

Execution of original work in the mixed media area with advanced technical proficiency in preparation for senior exhibition. Prerequisite: completion of 12 concentration credits.

ART 487 Advanced Two-Dimensional Studies (3)

Execution of original work in the two-dimensional area with advanced technical proficiency in preparation for senior exhibition. Prerequisite: completion of 12 concentration credits.

ART 491 Independent Study (1-3)

Independent research or studio work under the supervision of an instructor.

ART 493 Art Seminar (3)

Explores the relationship of the Christian faith to contemporary art and to the student's individual area of study. For senior art majors.

ART 494 Senior Exhibit (3)

Creation and exhibition of work from the student's area of concentration(s). Preparation of résumé, slides, and portfolio.

ART 497, 498 Major Honors (3, 3)

Independent creative and/or research two-semester project or program for junior- and senior-level students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5; GPA of 3.5 in the major; and departmental approval required for enrollment.

ARTH 111 Methods and Theories of Art History (3)

This course introduces students to the field of art history—what it is, what it does, and how it does it—by exploring methods of looking at, analyzing, evaluating, and contextualizing art and ways of articulating thoughts and instincts about art, as well as by examining issues of quality and beauty and developing personal criteria and judgment. (Studio and Art Education Majors only.) Offered Spring terms.

ARTH 150 Art History I: Ancient through Medieval Art (3)

Survey of works of art and architecture from prehistory to 1400.

ARTH 151 Art History II: Renaissance through Contemporary Art (3)

Survey of works of art and architecture from the year 1400 to the present.

ARTH 209 History of Modern Art (3)

A chronological survey of modernism from the middle of the nineteenth century to the present.

ARTH 210 Topics in Non-Western Art (3)

Survey of one area of non-Western art, selected from one of the following areas: African, Asian (Chinese, Japanese, Korean, Oceanic), Indian and Islamic, and Ancient American. The course will consider objects and buildings as both artistic creations and cultural artifacts. Meets QuEST Non-Western Studies requirement.

ARTH 302 19th and 20th-Century Art (3)

Studies of selected topics in the visual arts in Europe and America from the age of revolution to the contemporary period.

ARTH 303 Ancient and Early Christian Art (3)

Studies in the visual arts of the ancient world from the Paleolithic through the first centuries of Christianity in Europe and Byzantium. Prerequisite: ARTH 150 or ARTH 151.

ARTH 304 Medieval and Renaissance Art (3)

Studies in the visual arts from the Northern European art of the early Middle Ages through the Italian High Renaissance. Prerequisite: ARTH 150 or ARTH 151.

ARTH 305 Reformation and Baroque Art (3)

Studies in the visual arts in Europe and the New World from early 16th-century Germany through the Enlightenment. Prerequisite: ARTH 150 or ARTH 151.

ARTH 308 Museum Studies (3)

A course addressing the history and philosophy of the museum, responsible museum practices, and the design and installation of exhibitions, using the facilities and exhibition program of the Aughinbaugh Gallery and other area museums to provide interaction with art professionals and opportunities for practical application.

ARTH 309 Contemporary Art: 1945 – Present (3)

A thorough investigation of Contemporary Art made since 1945, covering relevant themes, art theory, and historical references.

ARTH 312 Artists and the Theatre (3)

Examination of stage design and theatre architecture created by mainstream artists and architects from the late Middle Ages to the present.

ARTH 360 Topics in Art History (3)

Selected topics in art history.

ARTH 490 Art History Seminar (3)

Discussion of advanced art historical methodologies and theories, critical examination of art historical literature, training in specialized art historical research and writing, and reflection on the field, its opportunities, and the intersection of faith and ethical values. Prerequisite: ARTH 111, ARTH 150 or 151, and a 300-level Topics course.

ARTH 492 Art History Capstone (3)

Preparation of a substantial research paper on a theme chosen in consultation with the advisor to reflect the student's area of specialization. During the semester the students meet with the advisor and fellow majors to develop the paper and to explore the integration of faith and art historical learning; an appropriate reflection of that integration is incorporated in the paper.

ARTM 401 Arts Management (3) Examines the skills needed to run an arts organization, including fundraising, budgeting, grants writing, publicity, event planning, and board development.

ATED 102 Introduction to Athletic Training (1)

An overview of the athletic training profession, career opportunities, the history of the NATA, athletic training related organizations, and requirements.

ATED 136 Prevention and Risk Management (3)

The study of injury and illness risk factors encountered by athletes and the physically active in order to plan and implement prevention and risk management programs.

ATED 137 Prevention and Risk Management Lab (1)

The application of injury and illness prevention and risk management psychomotor skills and competencies.

ATED 180 First Aid and Emergency Care (3)

Study and practical application of appropriate first aid and emergency care for acute athletic injuries/illnesses. Class meets requirements for American Red Cross First Responder certification. Prerequisite: Athletic Training Major status.

ATED 203 Medical Terminology and Topics (2)

The study and application of medical terminology, documentation and specific medical topics/conditions associated with physically active individuals.

ATED 231 Injury Assessment I (2)

Study and practice of athlete and physically active injury/illness assessment techniques for the lower extremity, head and face. Includes 1.5 lab. hours per week.

ATED 232 Injury Assessment II (2)

Study and practice of athlete and physically active injury/illness assessment techniques for the upper extremity, head and spine. Includes 1.5 laboratory hours per week.

ATED 233 Injury Assessment III (2)

Study and practice of the physically active injury/illness assessment techniques for the abdomen and spine. Includes 1.5 laboratory hours per week.

ATED 246 Practicum in Athletic Training I (2)

The course requires 80-100 clinical hours specialized clinical education experience for second semester sophomore Athletic Training majors under the supervision of on-campus athletic trainers. It includes classroom lecture, practical applications and physician observations. Prerequisite: Formal acceptance into the Athletic Training Major. Students may not acquire more than 20 hours per week.

ATED 291 Clinical Experience (.5-1)

A repeatable practical clinical education experience offered during the J-term or Summer Session. Course requires 30-60 clinical hours under the supervision of on-campus athletic trainers. Students may not acquire more than 20 hours per week. (Pass/Fail grade.)

ATED 330 Pharmacology for Athletic Training (2)

Study of pharmacologic applications for injury/illness to athletes and the physically active. Includes pharmacokinetics, pharmacodynamics, indications, contraindications, interactions of medications, and relevant governing regulations.

ATED 335 Therapeutic Exercise (4)

Study of theoretical and practical applications of exercise, rehabilitation, and reconditioning programs for the injured athlete. Three hours of lecture and three hours of lab per week.

ATED 337 Therapeutic Modalities and Treatment Techniques (4)

Study of the theories, uses, and clinical applications for physical therapy modalities, agents, and treatment techniques. Three hours of lecture and three hours of lab per week.

ATED 346 Practicum in Athletic Training II (2)

Specialized clinical education experience for first semester junior Athletic Training majors. The course requires 80-120 clinical hours under the supervision of on-campus athletic trainers in the athletic training room and with an on-campus sport. It includes classroom lecture, practical application and physician observations. Students may not acquire more than 20 hours per week. Prerequisite: ATED 246.

ATED 348 Practicum in Athletic Training III (2)

Specialized clinical education experience for second semester junior Athletic Training majors. The course requires 80-120 clinical hours under the supervision of on-campus athletic trainers in the athletic training room and with an on-campus sport. It includes classroom

lecture, practical application and physician observations. Students may not acquire more than 20 hours per week. Prerequisite: ATED 346.

ATED 442 Organization and Administration of Athletic Training

(3) Principle and strategies for organization, supervision, and implementation of all the administrative components of traditional athletic training programs (i.e., high school, college, pro and non-traditional programs, sports medicine clinics, hospitals, industrial settings).

ATED 446 Collision Sport in Athletic Training (2)

Specialized class for senior Athletic Training majors. Includes classroom lecture, seminar, and practical applications related to contact-collision sports which are equipment intensive (i.e., football and lacrosse). Fall semesters.

ATED 447 Clinical Athletic Training (2)

Specialized class for senior Athletic Training majors. Includes classroom lecture, seminar, and applications related to issues in clinical athletic training and sports medicine (i.e., care of the physically active, licensure, third-party reimbursement, employment, etc.). J-term.

ATED 449 Clinical Experience in Athletic Training (1)

45-60 hours practical experience (care of the physically active) in an off campus allied health facility, medical facility, or industrial setting. Learning activities include surgery observation(s), a patient case study, and special topic presentation. Students may not acquire more than 20 hours per week. Prerequisites: ATED 335 and 337.

ATED 450 Collision Sport Experience (1-3)

A specialized collision sport clinical education experience for senior Athletic Training majors. The course requires 120-200 clinical hours under the supervision of an athletic trainer. Students taking the course in the fall gain football related experience and those taking the course in the spring gain lacrosse experience. Students may not acquire more than 20 hours per week.

ATED 480 Senior Seminar in Athletic Training (4)

A specialized senior capstone course that evaluates final mastery of athletic training competencies and proficiencies. Includes special medical topics, pathology-related topics, and preparation for the BOC certification examination.

ATED 497, 498 Major Honors (3, 3)

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and department approval required for enrollment.

B

BIBL 201 Encountering the Bible (3)

Equips students to interpret the Old and New Testaments in their historical and literary contexts. This course explores various genres and addresses the origin, transmission, and canonization of the Bible. Students learn to understand and apply biblical texts responsibly through careful reading and analysis. Meets QuEST Bible requirement. Prerequisite: sophomore status or above.

BIBL 202 Encountering the Bible for Majors (3)

Equips students to interpret the Old and New Testaments in their historical and literary contexts. This course explores various genres

and addresses the origin, transmission, and canonization of the Bible. Students learn to understand and apply biblical texts responsibly through careful reading and analysis. Alternate to BIBL 201, designed specifically for students pursuing a major in Biblical and Religious Studies, Christian Ministries, or Peace and Conflict Studies. Meets QuEST Bible requirement.

BIBL 203 Encountering the Old Testament (Hebrew Bible) (3)

Equips students to interpret the Old Testament (Hebrew Bible) in its historical and literary contexts. This course explores various genres and addresses the origin, transmission, and canonization of the Old Testament. Students learn to understand and apply biblical texts responsibly through careful reading and analysis. Meets QuEST Bible requirement. Prerequisite: sophomore status or above.

BIBL 204 Encountering the New Testament (3)

Equips students to interpret the New Testament in its historical and literary contexts. This course explores various genres and addresses the origin, transmission, and canonization of the New Testament. Students learn to understand and apply biblical texts responsibly through careful reading and analysis. Meets QuEST Bible requirement. Prerequisite: sophomore status or above.

BIBL 231 Old Testament Literature (3)

Introduction to content and themes of the Old Testament with emphasis on sequence and meaning of events. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 233 Old Testament Literature for Majors (3)

Introduction to content and themes of the Old Testament with emphasis on sequence and meaning of events. Alternate to BIBL 231, designed specifically for students pursuing Bible, Religion, or Christian Ministries majors. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 235 New Testament Literature (3)

Survey of historical and cultural background of the New Testament, the life of Christ, the formation of the early Church, and the main themes of New Testament books. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 237 New Testament Literature for Majors (3)

Survey of historical and cultural background of the New Testament, the life of Christ, the formation of the early Church, and the main themes of New Testament books. Alternate to BIBL 235, designed specifically for students pursuing Bible, Religion, or Christian Ministries majors. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 253 Abraham, Moses, and the Exodus (3)

This course explores the content and themes of selected portions of the Old Testament books of Genesis through Deuteronomy with a particular emphasis on Genesis and Exodus. Students examine the ancestral stories in Genesis and Israel's dramatic exodus from Egypt. Theological issues and points of contemporary application will also be addressed. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 256 Conquest, Kingship, and Collapse (3)

This course explores the content and themes of selected portions of the Old Testament books of Joshua through Second Kings. Students will consider competing ideas about Israel's emergence in Canaan, examine the characterization of David, and investigate various perspectives on kings and kingship. Theological issues and points of contemporary application will also be addressed. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 259 Psalms and Wisdom Literature (3)

This course examines ancient Israel's poetic expressions of worship and explorations of wisdom. Students will study the workings of Hebrew poetry and the religious concerns of the authors as they attempted to worship God, understand life, explain suffering, and find wisdom. The course also explores current uses and significance of Psalms, Proverbs, Ecclesiastes, and Song of Songs. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 262 Prophets and the Prophetic Vision (3)

This course explores the ministry of ancient Israel's prophetic tradition, with special attention to the prophets' vision and role within Israelite society. Students will examine the relationship of the prophets to the religious and political establishments of their times, and discuss the applicability of prophetic theology to current social and political concerns. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 273 Jesus and the Gospels (3)

This course will examine and discuss how the Gospels portray Jesus of Nazareth. We will focus attention on two areas: (1) the life and teaching of Jesus (and its significance for faith); and (2) the nature of the canonical Gospels. In addition to a careful analysis of the Gospel accounts, we will thoroughly engage similarities and differences that appear in various gospel accounts. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 277 Apostle to the Gentiles: Paul in Acts and His Letters (3)

The Apostle Paul was one of the most dynamic leaders of the early church, and his missionary letters have profoundly influenced Christian history. This course explores the book of Acts and Paul's letters, interacting with his missionary theology and its implications for today. By studying his writings in light of their first-century cultural context, we better understand their content and relevance for Christian discipleship. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 281 The Book of Revelation (3)

This course considers the authorship and historical setting of Revelation as well as contemporary applications for worship and discipleship. A variety of historical and contemporary methods of interpretation will help the student to understand the rich and powerful symbols found in the Book of Revelation. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 285 Studies in Biblical Texts (3)

Study in the English text of a particular book or books of the Old and/or New Testament. Attention is given to historical background, content, and theology. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 291 Issues of War, Peace and Social Justice in Biblical Texts (3)

A study of the major Biblical texts pertaining to war, peace, and social justice issues, with attention to their application past and present. This course assesses the traditional Christian stances toward war and also deals with more recent developments such as terrorism, pre-emptive strike, nonviolent resistance, and active peacemaking, all from a biblical perspective. It also explores related issues like the relationships between patriotism, military service, nationalism, and Christian citizenship in the kingdom of God. Prerequisite: BIBL 201, 202, 203, or 204.

BIBL 293 The Bible and Social Ethics (3)

Central concepts and methods of biblical ethics in the social context are developed through an examination of relevant passages from both testaments. Biblical values applied to a discussion of current social

issues. Prerequisite: IDCR 151 and one of the following BIBL courses 201, 202, 203, or 204. Meets QuEST Ethics requirement.

BIBL 307 Biblical Backgrounds (3)

Study of non-biblical resources that contribute to understanding the historical, theological, and cultural landscape of the ancient Mediterranean world. Readings will include selections from sources such as the Dead Sea Scrolls, Josephus, the Apocrypha, and the Pseudepigrapha. Material resources from archaeology might also be studied. Prerequisites: BIBL 201, 202, 203, or 204; and one additional BIBL course, excluding BIBL 201, 202, 203, and 204.

BIBL 312 Selected Old Testament Books (3) Study in the English text of a particular portion of Old Testament literature, e.g., Genesis, the Psalms, Isaiah. Emphasizes both content and structure with consideration of critical issues. Prerequisite: BIBL 231 or 233.

BIBL 313 Selected New Testament Books (3)

Study in the English text of a particular portion of New Testament literature, e.g., the Gospel of John, Romans, Hebrews. Emphasizes both content and structure with consideration of critical issues. Prerequisite: BIBL 235 or 237.

BIBL 381 Biblical Interpretation and Criticism (3)

A study of methods by which the Biblical text is analyzed, and hermeneutical approaches stemming from diverse ethnic, socio-economic, lay, and scholarly communities. Prerequisites: BIBL 231 or 233 and BIBL 235 or 237.

BIBL 382 Topics in Biblical Theology (3)

Study of a selected biblical motif, noting its comparative treatment by various biblical authors and tracing its development through Scripture. Prerequisites: BIBL 231 or 233 and BIBL 235 or 237.

BIBL 491 Independent Study (1-3)

Selected topics pursued independently with frequent consultation with a faculty supervisor.

BIBL 497, 498 Major Honors (3, 3)

Independent research program for students who have a strong academic record (3.5 cumulative GPA) for a minimum of five previous semesters of college study. Department approval required for enrollment.

BIOL 102 Bioscience (3)

Introductory course designed for students who are non-science majors. Emphasis is on major principles and concepts. Two lectures and three hours of laboratory per week. Meets QuEST Laboratory Science requirement. Does not meet Department of Biological Sciences major requirement. Course fee \$65. Fall semesters.

BIOL 106 Life Sciences (3)

Selected topics in the life sciences designed for Education Majors. Emphasis is on the underlying concepts of biology which impact our daily lives as well as human interaction with the environment. Two lectures and three hours of laboratory each week. Along with PHSC 102, BIOL 106 meets QuEST Laboratory Science requirement for Education Majors only. Does not meet Department of Biological Sciences major requirement. Course fee \$65.

BIOL 117 Field Biology (3)

A field-oriented course introducing students to the natural history of the animals and plants, their field identification, adaptations to

changing seasons, and stewardship. Two lectures and three hours of laboratory weekly. Meets QuEST Laboratory Science requirement. Does not meet Department of Biological Sciences major requirement. Course fee \$65. Fall semesters.

BIOL 140 Ecology and Sustainability (3)

This course is designed to give students an introductory understanding of how ecological systems and ecological principles apply to natural ecosystems and the human interface with those systems. It will discuss ecological sustainability, economic sustainability, and social sustainability. It will include topics such as global biogeochemical cycles, the hydrologic cycle, the carbon cycle, trophic levels in ecosystems, competition, predation, parasitism, mutualism, population dynamics, agriculture, forestry and biodiversity. Two lectures and three hours of laboratory per week. Meets QuEST Laboratory Science requirement. Does not meet Department of Biological Sciences major requirement. Cross-listed with SUST 140. Course fee \$65. Fall semesters.

BIOL 160 Molecular and Cellular Biology (4)

Introduction to the molecular, genetic, and cellular aspects of biology. It includes a study of the nature of science, biological molecules, cell structure and function, enzymes, metabolism, and classical and molecular genetics. Three hours of lecture and three hours of laboratory per week. Although this course meets QuEST Laboratory Science requirement for all majors, it is required for Biology majors and is taught at a level appropriate for science majors. Course fee \$65. Fall semesters.

BIOL 161 Animal Form and Function (3) Students will develop an understanding of the diversity of animals and their natural histories as they relate to their respective form and function. The course seeks to integrate comparative aspects of the development, morphology, and physiology of animals with the concepts of life history, behavioral ecology, and evolutionary biology. In addition to lecture, laboratory sessions will enhance students' critical thinking skills and understanding of the complementarity of form and function as represented in the Animal Kingdom. Two hours of lecture and three hours of laboratory per week. Although this course meets QuEST Laboratory Science requirement for all majors, it is required for Biology majors and taught at a science major-appropriate level. Course fee \$115. J-term.

BIOL 162 Plant Form and Function (3)

Students will develop an understanding of the diversity of plants and their natural histories as they relate to their respective form and function. Topics of study will include diversity, anatomy, physiology, reproduction, and ecology with specific reference to economically and medically important plant groups. The distribution of major plant communities with global climate patterns and plant roles in critical biogeochemical cycles will be studied. Two hours of lecture and three hours of laboratory per week. Although this course meets QuEST Laboratory Science requirement for all majors, it is required for Biology majors and is taught at a level appropriate for science majors. Course fee \$115. Spring term.

BIOL 185 Human Anatomy and Physiology I (4)

Study of the structure and function of the human body from both a cellular and systemic perspective. Organ systems included are the integumentary, skeletal, muscular, nervous and endocrine systems. Three lectures and three hours of laboratory per week. Intended for majors in the health sciences but does not meet

Department of Biological Sciences major requirements. Course fee \$65. Fall semesters.

BIOL 186 Human Anatomy and Physiology II (4)

Study of the structure and function of the human body from both a cellular and systemic perspective. Organ systems included are the cardiovascular, immune, respiratory, digestive, urinary and reproductive systems. Three lectures and three hours of laboratory per week. Intended for majors in the health sciences but does not meet Department of Biological Sciences major requirements. Course fee \$65. Spring term.

BIOL 189 Genetics for Health Professions (3)

Study of Human Genetics as applied to health and disease, including treatment of disease and ethical, legal and social implications of using genetic techniques. Three lectures per week. Spring term.

BIOL 216 Environmental Issues and Sustainable Solutions (3)

A broad interdisciplinary examination of the issues surrounding environmental sustainability and stewardship. The course includes an examination of the scientific method as it applies to the study of ecosystem structure and function. Ethics, economics and public policy are examined as they relate to resource use, population growth, food production, pollution, biodiversity protection, and energy consumption. Central to the discussion are Judeo-Christian perspectives on environmental stewardship as they pertain to responsible/sustainable living. Meets QuEST Science, Technology, and the World requirement. Does not count toward Biology or Environmental Science major/minor. Fall semesters.

BIOL 218 Health Care in the Developing World (3)

This course will allow students to develop a working knowledge of the types of health care available in various parts of the world as well as an understanding of the disease patterns and access to health care for those people living in the poorer and underdeveloped parts of the world. Meets QuEST Cross-Cultural requirement. Enrollment by approved special application only. Alternate May terms: 2017, 2019.

BIOL 225 Speech Anatomy and Physiology (3)

Students will learn anatomy and physiology relevant to human speech and hearing. The course will include both normal function as well as common pathologies. Three hours of lecture per week. Alternate Fall semesters: 2018, 2020.

BIOL 258 Human Biology (4)

Major principles of human structure and function, including genetics, reproduction, development, and ecology. Three lectures and three hours of laboratory per week. Meets QuEST Laboratory Science requirement. Does not meet Department of Biological Sciences major requirement. Course fee \$65.

BIOL 260 Genetics and Development (3)

Building on concepts from BIOL 160, Molecular and Cellular Biology, BIOL 260 provides a deeper foundation in classical and molecular genetics, including topics of non-Mendelian inheritance, linkage, gene interactions and regulation, molecular genetics, mutations, and developmental genetics. Two hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 160. Course fee \$65. Fall semesters.

BIOL 262 Ecology and Adaptation (4)

Students will explore the interactions of organisms at the species, community, and ecosystem levels as well as investigate ecology as it

relates to the atmospheric sciences, physics, and chemistry. Additionally, evidence for modern evolutionary thought will be discussed within the framework of a Christian world view. Through comprehensive and investigative approaches to learning, this course will stress the development of students' critical thinking and writing skills. Three hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 160, BIOL 161, and BIOL 162. Course fee \$65. Spring term.

BIOL 269 Ecology of Florida (3)

On-site study of the unique and fragile Florida ecosystem emphasizing the ecology of the Everglades. Three-week field experience provides many opportunities to observe the flora and fauna of Floridian ecosystems. Meets QuEST Laboratory Science requirement. Course fee to be announced. Alternate J-terms: 2018, 2020.

BIOL 271 Ecological Field Techniques (2)

Introduction to the use of field research methods, field measurements, landscape and population analysis, and landscape mapping. One lecture and one field/laboratory session weekly. Prerequisite: BIOL 162. Course fee \$65. Alternate Fall semesters: 2017, 2019.

BIOL 274 Environmental Science (3)

An in-depth examination of the issues surrounding environmental sustainability and stewardship. Ethics, economics and public policy are examined as they relate to resource use, population growth, food production, pollution, biodiversity protection, and energy. Central to the discussion are Judeo-Christian perspectives on environmental stewardship as they pertain to responsible/sustainable living. Prerequisite: BIOL 160, BIOL 161, and BIOL 162. Alternate Fall semesters: 2017, 2019.

BIOL 290 Topics in Field Biology (3)

Three-week natural history travel courses offered in January or May. Courses in recent years included Desert Ecology of South Western United States, Natural History of New Zealand, and Tropical Forest Ecology of Panama. Each on-site course will emphasize field identification, natural history, and ecology of the local bird, mammal, reptile, invertebrate, and plant species within the context of their local ecosystem. Prerequisite: BIOL 262. Course fee to be announced. Offered intermittently in J-term or May term.

BIOL 297 Tropical Biology: Latin America (3) A three-week, on-site, intensive examination of tropical ecosystems including their structure, function, biodiversity, conservation, and stewardship. Identification of the local flora and fauna will be emphasized. Prerequisite: BIOL 262. Alternate May terms: 2018, 2020.

BIOL 313 Developmental Biology (3)

Principles of animal development, with major emphasis on vertebrate embryology. Additional topics: growth, differentiation, and metamorphosis. Two lectures and three hours of laboratory per week. Prerequisite: BIOL 260. Course fee \$65. Offered intermittently.

BIOL 315 Environmental Ethics (3)

A seminar course contrasting Judeo-Christian and Humanistic views of environmental ethics. Emphasis will be placed on developing an individual ethic within a Biblical framework of stewardship. Issues will include pollution, resource use, human population, and the connection of environmental stewardship with issues of justice in developing countries. Prerequisite: IDCR 151. Meets QuEST Ethics requirement. Fall semesters.

BIOL 317 Bioethics (3)

This course emphasizes a Christian perspective on ethical issues related to the biology of living organisms. Exploring concerns related to the development and use of biotechnology for both individual persons and for society at large will be the focus of the course. Prerequisite: IDCR 151. Meets QuEST Ethics requirement. Alternate Spring terms: 2017, 2019.

BIOL 321 Mycology (4)

Survey of the fungi-emphasizing identification of local species, classification, biological, and economic importance. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 162. Course fee \$65. Fall semester: 2018.

BIOL 325 Medicinal Botany (3)

A survey of the use of plants in modern pharmacology and as herbal supplements. Topics include biosynthesis and function of plant secondary molecules; selected plant-based pharmaceuticals; analysis of efficacy, safety, and regulation of herbal supplements; taxonomy of important medicinal plant families, and plants as nutraceuticals. Three lectures per week. Prerequisites: BIOL 162 and CHEM 310. Fall semesters.

BIOL 332 Plant Taxonomy (4)

Principles of classification with special reference to local flora, including plants of horticultural interest. Techniques of collection, identification, and preservation of plants. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 162. Course fee \$65. Alternate Fall semesters: 2017, 2019.

BIOL 334 Plant Ecology (4)

Study of changes in plant form, function, community composition, and community diversity across environmental gradients. Emphasizes study of regional vegetation through research projects. Three hours of lecture and three hours of laboratory per week. Prerequisite: BIOL 262 or BIOL/SUST 140. Course fee \$65. Alternate Spring terms: 2018, 2020.

BIOL 335 Plant Propagation (3)

Principles and practices of asexual and sexual plant propagation: horticultural crop improvement. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 162. Course fee \$65. Alternate Spring terms: 2017, 2019.

BIOL 348 Animal Behavior (3)

Animal Behavior describes and investigates the proximate and ultimate causes of animals' actions. An interdisciplinary approach will examine and integrate the functional behavior of animals through ecological, evolutionary, genetic, neurophysiological and psychological bases. Prerequisite: BIOL 161, BIOL 185, or PSYC 101. Alternate Fall semesters: 2018, 2020.

BIOL 356 Ornithology (4)

Study of the class Aves emphasizing structure and classification. The ecology, behavior, and song of birds is examined. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 161. Course fee \$115. Alternate Spring terms: 2018, 2020.

BIOL 358 Herpetology (4)

Study of amphibians and reptiles with emphasis on anatomy, development, physiology, reproductive biology, behavior, ecology, and systematics. Laboratory will emphasize field observation, identification, and research. Three lectures and three hours of

laboratory per week. Prerequisite: BIOL 161. Course fee \$115. Alternate Spring terms: 2017, 2019.

BIOL 360 Topics in Biology (3-4)

Selected topics in biology not currently included in course offerings. May be repeated for additional credit as the topic/study changes. Prerequisites: Determined by Instructor. Offered intermittently.

BIOL 362 Aquatic Zoology (4)

A comprehensive course on the taxonomy and ecology of aquatic insects, fish, amphibians, and reptiles. Identification of the biota common to south central Pennsylvania's lentic and lotic ecosystems. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 161. Course fee \$65. Alternate Spring terms: 2017, 2019.

BIOL 381 Microbiology (4)

A study of microorganisms designed for those in science majors, including nutrition and dietetics, and environmental science. Laboratory emphasizes food and environmental microbiology and biotechnology, as well as standard microbiology lab techniques. Three lectures and three hours lab per week. Not open to students with credit in BIOL 382. Prerequisite: BIOL 189 or 260; and CHEM 105 or 103. Course fee \$65. Alternate Spring terms: 2018, 2020.

BIOL 382 Microbiology for Health Professions (4)

A study of microbiology, with emphasis on clinical and epidemiological applications, including immunology. Designed for those students entering health professions. Laboratory sessions include standard microbiology lab techniques as well as exercises related to medical technology. Not open to students with credit in BIOL 381. Three lectures and three hours lab per week. Prerequisite: CHEM 103 or CHEM 105. Course fee \$65. Offered every Fall semester and alternate Spring terms: 2017, 2019.

BIOL 385 Physiology (4)

Functional processes, including osmoregulation, excretion, metabolism, and transport and control systems, with strong emphasis on human physiology. Three lectures and three hours of laboratory per week. Prerequisite: CHEM 105. Course fee \$65. Fall semesters.

BIOL 386 Human Anatomy (4)

A study of the gross anatomy of the human, including extensive laboratory experience in the dissection of a human cadaver. Utilization of computer software to supplement dissection of the human body. Two lectures and six hours of laboratory per week. Prerequisite: one of {BIOL 160, 161, 385} or {BIOL 185 and 186}. Course fee \$65.

BIOL 387 Neuroscience (3)

Fundamentals of anatomy and physiology of the human nervous system. Emphasis on motor control, sensory input, the special senses, and behavior, including disease and dysfunction. Additional topics may include sleep, learning and memory, and neural development. Three lectures per week. Prerequisite: BIOL 161 or BIOL 185. Fall semesters.

BIOL 391 Biology Practicum (1-3)

Realities of the biological field through direct participation. May involve experience as a lab assistant, assistance with faculty research, or off-campus employment. Open to juniors and seniors in the Department of Biological Sciences. Maximum of three credits per semester (no more than four credits counting towards major requirements.)

BIOL 393 Research Methods (1)

This course will focus on research methodology including advanced literature searching, experimental design, and modeling. Students working under the guidance of a departmental faculty member will select a research topic, conduct a literature review, and write a research proposal. BIOL 393 earns biology elective credit only when followed by BIOL 422/BIOL 497/BIOL 498. One lecture per week. Prerequisites: Junior standing and 3.0 GPA or departmental consent. Cross-listed with CHEM 393.

BIOL 407 Secondary Science Curriculum and Instruction (2)

A seminar emphasizing disciplinary content issues that are specific to biology, chemistry, or environmental education teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology applications; and professional development. Concurrent enrollment with EDUC 420, TEP 435, and PSYC/HDFS 311. Prerequisite: admission to the Professional Semester. Cross-listed: CHEM 407. Spring term.

BIOL 412 Cell Biology (4)

Study correlating cell structure and cell function. Emphasizes current literature in molecular and cellular biology. Fundamentals of microtechnique in laboratory. Three lectures and three hours of laboratory per week. Prerequisite: BIOL 260. Course fee \$65. Alternate Spring terms: 2017, 2019.

BIOL 413 Molecular Biology (4)

Emphasizes research techniques and understanding of molecular genetics including the structure, organization, expression, and manipulation of the gene. Experiments in recombinant DNA methodology include cloning, transformation, restriction analyses, PCR, site directed mutagenesis, and DNA sequence analysis. Three lectures and four hours of laboratory each week. Prerequisite: BIOL 260. Course fee \$65. Fall semesters.

BIOL 417 Molecular Genetics (4)

Selected topics illustrating the molecular genetics of eukaryotic and prokaryotic organisms and viruses will be surveyed with an emphasis on primary research publications. Three lectures and three hours of laboratory each week. Prerequisite: BIOL 413. Course fee \$65. Alternate Spring terms: 2018, 2020.

BIOL 418 Immunology (4)

Introduction to the immune system with emphasis on the host's interaction with an environment which contains many potentially harmful microbes. Control and specificity of the adaptive immune system are illustrated by studying structure and function of antibodies and T cell receptors, development of immune cells, response to immunization, allergy, autoimmunity, graft rejection and immunity to tumors. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIOL 260. BIOL 381 or 382 highly recommended. Course fee \$65. Alternate J-terms: 2018, 2020.

BIOL 422 Senior Research (1-3)

Offered during the fall and spring semester for fourth year students. Students will carry out the research project proposed in the Research Methods course under the direction of a faculty mentor. The semester culminates with the submission of a written thesis and an oral presentation to a departmental gathering that is advertised campus wide. Prerequisites: Senior year standing and completion of the BIOL 393 Research Methods. Maximum of three credits per semester; a

maximum of five credits may be used as elective credit for the biology major. Cross-listed with CHEM 422/NUTR 422. This course does not fulfill departmental honors requirements. Students pursuing departmental honors must enroll in BIOL 497, 498.

BIOL 491 Independent Study (1–3)

Independent study or research under the supervision of an instructor whose approval must precede the student's enrollment.

BIOL 495 Capstone: Natural Sciences (3)

Historical, philosophical, and ethical aspects of the biological sciences, with some discussion of various models for relating science and Christian faith. Open only to Senior majors in the Departments of Biological Sciences and Chemistry and Biochemistry and to Biopsychology majors. Cross-listed with CHEM 495. Prerequisite: PHIL 101 or PHIL 102.

BIOL 497, 498 Major Honors (2–3, 2–3)

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5, BIOL 393 Research Methods, and departmental approval required for enrollment.

BUSA 102 Opportunities in Business (1)

To familiarize students with the various disciplines taught within the field of business, the interrelatedness of the business disciplines, career possibilities available, the faculty of the department, and the relatedness to the liberal arts. (Pass/Fail grade only.)

BUSA 115 Personal Money Management (1)

A course in basic personal financial concepts designed to help students handle their money, and empower them to start their life with a solid financial foundation. Topics include savings, budgeting, debt, career planning, and personal money management and the Christian faith. (Pass/Fail grade only.)

BUSA 120 Principles of Management (3)

An introduction to the basic processes of management including human behavior in the workplace, leadership, teams, quality, change, organizational structure and design, international management, and management ethics.

BUSA 130 Personal Finance (3)

Career planning, budgeting, income taxes, investing and saving, various aspects of banking, credit and home ownership, insurance (life, auto, home), and estate planning with an integration of Christian faith throughout.

BUSA 305 Writing for Business (3) Designed to improve clarity, conciseness, and speed in writing for the business world. Emphasis is on organizing written business communications to meet the readers' needs. Crosslisted with ENGL 305g.

BUSA 356 Decision-Making Tools in Management (3)

Develop facility with analytical tools including two-sample testing; ANOVA; non-parametric testing; multiple regression; time series and indexing; project planning, scheduling, and control; productivity measuring; and quality control. Prerequisite: {MATH 107, MATH 108 or MATH 111} and STAT 281.

BUSA 358 Making a Better World? (3)

From the Borg to Matrix to I-Robot it is clear that fears of decision making machines make for popular movies. Students in this course

will examine the foundation of these fears by studying the history, current practices and projected directions of Management Science (based on mathematical and informational sciences) and Information Technology. Emphasis is placed on examining these areas from a Christian perspective. Meets Science, Technology and World QuEST requirement.

BUSA 360 Operations Management (3)

Study of the effective and efficient production of goods and services in both nonprofit and for profit organizations with emphasis on planning and scheduling of operations, design of production systems, allocation of resources including manpower, equipment, and control. Prerequisites: {MATH 107, MATH 108 or MATH 111} and STAT 281 (required for Business majors) or STAT 269; CIS 190 or equivalent. Alternate Fall semesters: 2018, 2020.

BUSA 365 Topics in Business Administration (3)

Study of selected special topics in business administration. Content dependent on faculty and student interest. Prerequisites dependent on course topic.

BUSA 370 Moral Issues in Business (3)

Students develop a personal framework for ethical decision-making that draws from various moral philosophies and is rooted in their Christian faith. These ethical frameworks are used to examine a wide range of moral issues that stem from economic systems and the organizations that operate within them. In addition, there is analysis of individual business practices in the context of specific business disciplines. Meets QuEST Ethics requirement.

BUSA 380 Small Business Development (3)

A survey of the entrepreneurial process and the various aspects of launching a new venture. Topics covered include organizational models and team formation; legal structures; idea definition; raising capital; sales and marketing; business and financial models; product and service development; management; operations; customer support and sustainability. Current thinking in the business as mission and transformational development movements will be surveyed. Students will form interdisciplinary teams around a specific business venture approved by the instructor. Each team will develop a business plan for their venture based on course guidelines which will include an integration of the business as mission and transformational development models. Teams will critique each other's plans. Prerequisites: {ACCT 141 or ACCT 131}, BUSA 120, MRKT 130.

BUSA 381 Business Law I: The Legal Foundation for Business (3)

Introduction to the American legal process, the structure of the court system, & basic civil actions with an emphasis on contract law.

BUSA 382 Business Law II: The Legal Environment for Business (3)

Study of selected legal principles applicable to business, including the law of agency, employment and labor law, environmental and consumer regulation, and international law. Prerequisite: BUSA 381.

BUSA 385 Entrepreneurship (3)

Surveys current topics in entrepreneurship including business-as-mission and the social entrepreneurship movement. It will also provide students with significant interactions with actual entrepreneurs and a field experience with an entrepreneurial firm or organization. Prerequisite: ACCT 141 and BUSA 120 and MRKT 130.

BUSA 391 Business Practicum (1-3)

Practical business-related experience under professional supervision or supervised participation as a teaching assistant in departmental courses. Open to juniors and seniors in the Department of Business. Other students by department approval.

BUSA 459 Strategic Management (3)

Integrative course that focuses on strategic planning, policy formulation, and corporate-wide decision making through the use of comprehensive case problems. Prerequisites: BUSA 120, MRKT 130, CIS 190, FINA 305 and BUSA 381.

BUSA 491 Independent Study in Management and Business (1-3)

Independent study in management and business.

BUSA 497, 498 Major Honors (3, 3)

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5; GPA of 3.75 in the major; and departmental approval required for enrollment. Open only to seniors. (These courses may not be used to fulfill major requirements, but will be free electives.)

C

CHEM 101 Introductory College Chemistry (3)

This course is designed to prepare students for continuation into the CHEM 105/CHEM 106 sequence by focusing on the application of mathematical calculations in chemistry as well as basic chemical topics. Topics include exponents, logarithms, solving equations, dimensional analysis, the mole, stoichiometry, energy and bonding. Three lecture hours per week, does NOT meet QuEST Laboratory Science requirement. Offered Fall semesters.

CHEM 102 Chemistry for Living (3)

Consideration of various concepts basic to chemistry and the impact of chemistry on the current world scene. For non-science majors, assuming no high school chemistry. Two lectures and three hours of laboratory per week. Meets QuEST Laboratory Science requirement. Course fee \$65. Offered J-terms and Spring terms.

CHEM 103 Chemical Science (4)

Principles of chemistry for allied health majors. Topics include the periodic table, chemical bonding, stoichiometry, chemical equilibria and molecular structure and properties of organic and biological molecules. Three lectures and three hours of laboratory per week. Meets QuEST Laboratory Science requirement. Course fee \$65. Fall semesters.

CHEM 105 General Chemistry I (4)

Solution chemistry, stoichiometry, chemical analysis, atomic structure and chemical bonding, the periodic table, and states of matter. The laboratory experience utilizes a discovery approach. Three lectures and three hours of laboratory per week. Prerequisite: 1) high school chemistry and a "forward" score on the Toledo Placement exam (28-34 and at least 14 out of 20 on the math portion of this placement exam, or a score of 35 or more) or 2) high school chemistry and a grade of C or better in CHEM 101, Introductory College Chemistry. Meets QuEST Laboratory Science requirement. Course fee \$65. Offered Fall and Spring term.

CHEM 106 General Chemistry II (4)

Kinetics and thermodynamics of chemical reactions, types of chemical reactions, equilibrium and applications in aqueous solution, and electrochemistry. Three lectures and three hours of laboratory per week. Prerequisite: CHEM 105. Course fee \$65. Spring term.

CHEM 204 Introduction to Organic Chemistry (4)

Essential foundations of organic chemistry for students needing a one semester survey of organic chemistry. Includes natural and synthetic substances, their properties, reactions, and preparation. Three lectures and three hours of laboratory per week. Prerequisite: CHEM 106. Course fee \$65. Fall semesters.

CHEM 221 Chemical Analysis I (4)

The theoretical basis and techniques necessary to accurately and precisely measure the chemical composition of natural and artificial materials. Specific topics include experiment design, sampling, and validation of results with supporting statistics; gravimetric and titrimetric analysis with supporting acid-base and solubility chemical equilibrium theory; introduction to instrumental techniques including molecular spectroscopy (UV-Vis), and chromatographic methods (GC and HPLC). Three hours of lectures and four hours of laboratory per week. Prerequisite: CHEM 106 or equivalent. Course fee \$65. Fall semesters.

CHEM 222/322 Independent Research (1-3)

Independent experimental research intended for sophomores and juniors under the direction of a faculty mentor. One to two credits of research will culminate in a written report, with the option of presenting a poster at a campus research symposium. Students taking three credits of research in one academic year must complete the written report and a poster presentation for the spring research symposium. A maximum of three credits of research can count towards the chemistry, biochemistry, or chemistry education major as elective credits. Any additional credits in 222, 322, or 422 must be taken as College-wide free electives. Prerequisite: Mentoring Instructor's consent.

CHEM 240 Environmental Chemistry (4)

The chemistry of surface and ground water, the atmosphere, and the geosphere, how these interact with each other and the biota, with particular emphasis on the impact of human activity. The laboratory consists of analytical methods used to measure pollutants in these parts of the environment. Three lectures and one three-hour laboratory per week. Prerequisite: CHEM 204, or CHEM 309. Course fee \$65. Alternate Spring terms: 2018, 2020.

CHEM 309 Organic Chemistry I (4)

The characterization and chemistry of simple carbon compounds as organized by functional group. This includes nomenclature, three-dimensional structure, physical properties, reaction mechanisms, kinetics, thermodynamics, reactions, and NMR and IR spectroscopy. Three lectures and four hours of laboratory per week. Prerequisite: CHEM 106. Course fee \$65. Fall semesters.

CHEM 310 Organic Chemistry II (4)

The characterization of carbon compounds with increasing complexity. Emphasis will be on the chemistry of aromatic compounds, carbonyl compounds, amines, and biological molecules that contain multiple functional groups. This includes nomenclature, physical properties, reaction mechanisms, kinetics, thermodynamics, reactions, multi-step syntheses, and the integration of spectroscopic

methods for the structure determination of organic molecules. Three lectures and one four-hour laboratory per week. Prerequisite: CHEM 309. Course fee \$65. Spring term.

CHEM 321 Chemical Analysis II (4)

A continuation of the theoretical basis and techniques necessary to accurately and precisely measure the chemical composition of natural and artificial materials. Specific topics include an expansion of experiment design, sampling, and validation of results with supporting statistics; titrimetric analysis with supporting compleximetric and oxidation-reduction chemical equilibrium theory; introduction to instrumental techniques including atomic spectroscopy (AAS, AES, and APS), chromatographic methods (GC/MS and HPLC), and electrochemical methods. Three lectures and three hours of laboratory per week. Prerequisite: CHEM 221 and CHEM 310. Course fee \$65. Spring terms.

CHEM 342 Advanced Synthesis and Spectroscopy (3)

One four-hour laboratory and two seminars per week. Laboratory will consist of the synthesis and analysis of organic and inorganic chemicals. The seminar includes instruction in interpretation of spectroscopic data, particularly modern NMR techniques; discussion of the results of the synthesis and analysis; and guidance in the presentation of written reports. Prerequisite: CHEM 310. Course fee \$65. Alternate Spring terms: 2018, 2020.

CHEM 360 Topics in Chemistry (3-4)

Selected topics in chemistry not currently included in course offerings. May be repeated for additional credit as the topic/study changes. Prerequisites: Determined by Instructor. Offered intermittently.

CHEM 361 Inorganic Chemistry (4)

Periodic variation of physical and chemical properties of the elements; bonding, structure, and spectroscopy of inorganic compounds, including coordination compounds; types of inorganic reactions. Three lectures and three hours of laboratory per week. Prerequisite: CHEM 310. Course fee \$65. Alternate Fall semesters: 2017, 2019.

CHEM 390 Junior Chemistry Seminar (1)

An introduction to the chemical literature, including the nature of the chemical literature, the process of doing a literature search, and the reading and critiquing of current papers. Students will give oral presentations based on papers in the literature. The course also includes a unit on chemical safety. Prerequisite: Junior Standing. Required of all chemistry, chemical education and biochemistry majors. Spring term.

CHEM 391 Chemistry Practicum (1-3)

Exposure to the chemical field through direct participation. May involve experience as a laboratory assistant for a course, as an instrumentation assistant, or off-campus employment. Open to juniors and seniors in the departments of the natural sciences. Maximum of three credits per semester with the total not exceeding 4 credits. These credits cannot count towards the chemistry elective for either the major or a minor. Instructor's consent required.

CHEM 393 Research Methods (1)

Offered during the fall and spring semester for third-year students. The course will focus on research methodology including advanced literature searching, experimental design, and modeling. Students working under the guidance of a departmental faculty member will

select a research topic, conduct a thorough literature review, and write a research proposal. One lecture per week. Prerequisites: Junior standing and 3.0 GPA or departmental consent. Cross-listed with BIOL 393.

CHEM 407 Secondary Science Curriculum and Instruction (2)

A seminar emphasizing disciplinary content issues that are specific to biology, chemistry, or environmental education teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology applications; and professional development. Concurrent enrollment with EDUC 420, TEP 435, and PSYC/HDFS 311. Prerequisite: admission to the Professional Semester. Cross-listed with BIOL 407. Spring term.

CHEM 409 Advanced Organic Chemistry (3)

Application of molecular orbital theory, thermodynamics and kinetics to the determination of organic reaction mechanisms and identification of reactive intermediates. Prediction of reaction mechanisms as applied to both organic and biological systems. Prerequisite: CHEM 310. Alternate J-terms: 2017, 2019.

CHEM 410 Biochemistry I (4)

Types of biochemical compounds with emphasis on structure/function relationships, i.e., bioenergetics, catabolism and human nutrition. The laboratory includes the isolation and purification of proteins, lipids and carbohydrates; qualitative and quantitative analysis of biological compounds; and enzyme kinetics. Three hours of lecture and three hours of lab per week. Prerequisite: CHEM 310. Course fee \$65. Fall semesters.

CHEM 412 Biochemistry II (4) Anabolic reactions of organisms including DNA replication, RNA transcription, and protein synthesis with an emphasis on reading the current literature. Three lectures and four hours of laboratory per week. Prerequisite CHEM 410. Course fee \$65. Spring term.

CHEM 422 Senior Research (1-3) Offered during the fall and spring semester for fourth year students. Students will carry out the research project proposed in the Research Methods course under the direction of a faculty mentor. Faculty and students will meet during the semester for progress updates and to discuss other topics as needed. The semester will typically culminate with the submission of a written thesis and an oral presentation to an open gathering that is advertised campus wide. Prerequisites: Senior year standing and completion of the CHEM 393 Research Methods or instructor's consent. Maximum of three credits per semester with the total not exceeding 5 credits. Cross-listed with BIOL 422/NUTR 422.

CHEM 437 Physical Chemistry I (3.5)

An introduction to modern physical chemistry including classical thermodynamics, statistical thermodynamics, equilibrium, and kinetics. Laboratory experiments will demonstrate principles of chemical thermodynamics and kinetics. Experiments will be performed every 3-4 weeks, with interceding time allowed for discussion, data analysis and writing. 3 hours of lecture each week, 4 hours of lab every 3-4 weeks. Prerequisites: CHEM 106 and a grade of C- or better in MATH 112. Course fee \$65. Fall semesters.

CHEM 438 Physical Chemistry II (3.5)

An introduction to modern physical chemistry including quantum mechanics, computational methods, approximation methods, and

spectroscopy. Laboratory experiments will demonstrate these topics. Experiments will be performed every 3-4 weeks, with interceding time allowed for discussion, data analysis and writing. 3 hours of lecture each week, 4 hours of lab every 3-4 weeks. Prerequisites: CHEM 437, MATH 270 or MATH 211. Course fee \$65. Alternate Spring terms: 2017, 2019.

CHEM 490 Senior Chemistry Seminar (1)

Advanced work in the chemical literature to include leading class discussions on selected papers. Attendance at departmental seminars is required. The course also includes a unit on professional ethics in chemistry and biochemistry, as well as instruction on career planning. The Educational Testing Service's Major Field Test in Chemistry will be administered in this course and is a requirement for graduation. Prerequisite: Senior status. Required of all chemistry and biochemistry majors. Fall semesters.

CHEM 491 Independent Study (1-3)

Independent study of an advanced topic under the supervision of an instructor whose approval must precede the student's enrollment. This course rubric is not intended for laboratory research. These credits may count towards the chemistry elective. Instructor's consent required.

CHEM 495 Capstone: Natural Sciences (3)

Historical, philosophical, and ethical aspects of the natural sciences, with some discussion of various models for relating science and Christian faith. Open only to Senior majors in the Departments of Biological Sciences and Chemistry and Biochemistry and to Biopsychology majors. Prerequisite: PHIL 101 or 102.

CHEM 497, 498 Major Honors (1-4, 1-4)

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5, CHEM 393 Research Methods, and departmental approval required for enrollment.

CHIN 101, 102 Fundamentals of Chinese I, II, (3, 3)

Intensive study of the fundamentals of Mandarin Chinese grammar within a communicative approach to language learning. Introduction to reading and writing Chinese and to the Chinese culture. Meets QuEST Language requirement.

CHIN 201 Intermediate Chinese (3)

Continued study of grammar principles and the Chinese writing system with practical application in conversation, reading, and writing. Continued study of the Chinese culture through selected readings. Prerequisite: CHIN 102 or the equivalent. Meets QuEST Language requirement.

CHIN 202 Intermediate Chinese II (3)

A continuation of CHIN 201 with a focus on further acquisition of reading, writing, listening, and speaking skills in Mandarin Chinese at the intermediate level, as well as cultural content. Prerequisite: CHIN 201.

CHIN 260 Cross-Cultural: China (3)

This three week cross-cultural study course allows students to experience China, the second largest economy in the world. Through a short-term study in Hangzhou, a renowned metropolis, students will participate in a summer language and culture program at the International Exchange Center of Zhejiang University of Technology. In the first week, students will stay at the International Exchange

Center of Zhejiang University of Technology in Hangzhou. On the second and third week, students will travel to three other large cities: Shanghai, Xi'an, and Beijing. Course fee to be announced.

CHIN 301 Advanced Chinese (3)

Acquisition of listening, speaking, reading and writing skills at the advanced level in Chinese. Study of Chinese culture through the reading of Chinese narrative and poetry. Prerequisite: CHIN 202.

CHIN 302 Advanced Chinese II (3)

This course is designed for students who have completed five semesters of college level Mandarin class or equivalent. Students will build fluency up to the advanced-medium level through studying and practicing functional grammar and methods of composing paragraphs as well as descriptions and narration in order to further develop communicative abilities. Instruction emphasizes the development of skills for essay writing. Students will also gain extensive experience in reading Chinese selected readings of cultural works and watching Chinese movies to increase vocabulary, enhance grammar skills, and develop four kinds of proficiency skills. Prerequisite: CHIN 301.

CHIN 320 Special Topics in Chinese (3)

The study of selected topics in Chinese at the advanced level. Student writing in Chinese at the advanced level. Prerequisite: CHIN 202.

CHIN 391 Independent Study (1-3)

Advanced language study or research in Chinese.

CHRM 099 Opportunities in Christian Ministries (1)

Surveys the opportunities available to Christian Ministries majors. The emphasis is on interaction with persons who are serving in ministry positions. (Pass/Fail grade only.)

CHRM 210 Theology of Ministry (3)

This course explores the nature, authority and responsibility of the minister. More specific topics include the minister's relation to the general church and community, methods of ministerial work, the conducting of church services, and general church administration. Students will also be required to participate in Spiritual Formation groups that meet weekly during the chapel period. Prerequisites: sophomore status and CHRM 099. Course fee \$50.

CHRM 220 Introduction to Christian Mission (3)

This course will be a general introduction to Christian missions and to the global dimensions of the Christian faith. The biblical/theological, historical, and current global contextual foundations for Christians witness will be reviewed, and strategies for personal and communal mission participation in light of these foundations will be surveyed. Students will also be required to participate in Spiritual Formation groups that meet weekly during the chapel period. Students must have sophomore status to register for this course. Course fee \$50.

CHRM 225 Field Experience in Christian Ministries (2)

Field experience for students preparing for Christian ministry that provides observation and the development of an understanding of ministry roles. Students are expected to connect theoretical ideas with actions and decision-making processes associated with effective ministry. Prerequisite: CHRM 099.

CHRM 227 Pre-Field Experience for Cross-Cultural Ministry (3)

The development of appropriate resources (including funds), attitudes, strategies, and cultural learning techniques for cross-cultural ministry. Students are required to participate in an 8-10 week cross-cultural ministry experience during the following summer and participate in CHRM 393 the following fall. To be taken in the spring semester of the junior year by all students completing the Cross-Cultural Ministries concentration of the Christian Ministries major. Prerequisites: Junior standing and completion of SOAN 212, CHRM 220, and COMM 342.

CHRM 235 Ministry with Youth I (3)

The theoretical background of youth ministry is investigated with special attention given to the theological foundations of ministry with youth, the psychological characteristics of youth, the social manifestations of the youth culture, and qualities that enhance ministry with youth.

CHRM 242 Christian Spirituality (3)

This course provides an examination of the Christian experience of God, with attention to the symbols used throughout history to describe this experience. By reflecting on a variety of approaches to God, students develop a comprehensive view of spirituality in the Christian tradition. Reserved for Christian Ministries and Music Worship majors; other students need Instructor's consent to enroll.

CHRM 243 Evangelism and Discipleship (3)

This course examines biblical and historical understandings and practices of evangelism and discipleship. The relationship between evangelism, discipleship, and social action will be emphasized and applications will be made to local church contexts. Prerequisites: CHRM 099 and CHRM 210.

CHRM 320 Biblical Theology of Mission (3)

This course will examine the story of God's activity in the world as recorded in the Bible. A particular focus of the course will be the relationships between mission (God's activity) and missions (human activity) that are developed in the biblical record. Applications will be made to various North American and global contexts. Prerequisites: CHRM 099 and CHRM 220.

CHRM 323 Worship (3)

An introduction to the broad topic of worship, including such aspects as the theology of worship, the creation of worship materials, and the development of worship skills. Attention is also given to special worship services, the liturgical calendar, and the influence of culture on worship. Prerequisites: CHRM 099 and CHRM 210.

CHRM 330 Organization and Leadership for Ministry (3)

An introduction to the basic processes of organization and leadership in a variety of ministry settings, including congregations and parachurch ministries. Topics include financial planning, organizational management, and leadership recruitment, development, and training. Diverse cultural perspectives on leadership will also be explored and addressed. Prerequisites: CHRM 099 and CHRM 210.

CHRM 336 Ministry with Youth II (3)

The practice of youth ministry is demonstrated through activities that acquaint the students with sound methods of evangelizing, discipling, teaching, and counseling youth. Attention is also given to planning and managing a comprehensive program of ministry with youth. Prerequisites: CHRM 210 and CHRM 235.

CHRM 338 Teaching for Christian Ministries (3)

Study of the biblical, historical, philosophical, theological, and psychological foundations of Christian education with special emphasis on how they relate to the aim, content/method, teacher-student relationship, environment, and evaluation of Christian education. This theoretical framework is then applied to pedagogy and the development of curricular materials for Christian ministry. Prerequisites: CHRM 099 and either CHRM 210 or CHRM 220.

CHRM 342 Pastoral Counseling (3)

Role of the pastor in private, group, crises, referral, marriage enrichment, family, youth, and peer counseling. Prerequisites: CHRM 099 and CHRM 210.

CHRM 343 Introduction to Preaching (3)

The discipline of preaching is examined within the larger context of the church's call to proclaim the gospel. Various methods of sermonizing and types of sermons are considered, with the Bible regarded as the primary source of sermon material. Practical experience in sermon preparation, delivery, and critique are key components of the course. Prerequisites: CHRM 099 and 210.

CHRM 351 Topics in Congregational Ministries (3)

Study of a selected theme relating to Congregational Ministries, drawing primarily upon biblical studies and theology. Limited to upper-division Christian Ministries students. Prerequisites: CHRM 099 and CHRM 210.

CHRM 352 Topics in Cross-Cultural Ministries (3)

Study of a selected theme relating to Cross-Cultural Ministries, Intercultural Ministries, or Mission, drawing primarily upon biblical studies and theology. Limited to upper-division Christian Ministries students. Prerequisites: CHRM 099 and CHRM 220.

CHRM 353 Topics in Youth Ministries (3)

Study of a selected theme relating to Youth Ministries, drawing primarily upon biblical studies and theology. Limited to upper-division Christian Ministries students. Prerequisites: CHRM 099 and CHRM 210.

CHRM 360 Models of Christian Ministry in the City (3)

Exploration of the theologies and practice of Christian ministry in the city. Diverse models of urban mission are examined through tours, guest lectures, and readings. Prerequisites: CHRM 099 and either CHRM 210 or CHRM 220.

CHRM 391 Practicum (1-3)

Supervised fieldwork congregational or youth ministries. Senior status and Instructor's permission is required for admission.

CHRM 393 Post-Field Experience for Cross-Cultural Ministry (2)

A continuation of CHRM 227 focusing on reflection and analysis of the summer cross-cultural ministry experience through debriefing exercises. To be taken in the fall semester of the senior year by all students completing the Cross-Cultural Ministries concentration of the Christian Ministries major. Prerequisites: Senior standing and completion of CHRM 227.

CHRM 491 Independent Study (1-3)

Selected topics pursued independently with frequent consultation with faculty supervisor. Prerequisites: CHRM 099 and either CHRM 210 or CHRM 220.

CHRM 493 Christian Ministries Seminar (3)

This course serves as the capstone for Christian Ministries majors. The preparation and presentation of a major research project related to ministry is the central agenda for the course. Students will also be required to participate in Spiritual Formation groups that meet weekly during the chapel period. Senior status is required for admission. Prerequisites: CHRM 099 and either CHRM 210 or CHRM 220. Course fee \$50.

CHRM 497, 498 Major Honors (3, 3)

Independent research program for students who have a strong academic record (3.5 cumulative GPA) for a minimum of five previous semesters of college study. Departmental approval required for enrollment. Prerequisites: CHRM 099 and either CHRM 210 or CHRM 220.

CIS 102 Competitive Programming (0 or 1)

This re-entrant course focuses on preparing the student for competitive programming. Students learn to solve difficult problems quickly and accurately utilizing various algorithms and implementation techniques. Problem solving strategies will be addressed using past contest problems as examples. The course will conclude with a culminating competition such as the ACM ICPC regional competition at Shippensburg in the fall semester the Dickinson Programming Competition in the spring. Additional competitions will be held with other schools as arranged.

CIS 171 Problem Solving with Computers (3)

This course is a broad and hands-on exposure to the capabilities and uses of computer software. Course projects introduce students to problems that computers can solve and various tools (programs or applications) used for these solutions. These tools include developing Internet web pages, using graphics, spreadsheets, and database applications. Students participate in a team project to design and launch a website that will benefit web users practically and/or spiritually. Meets QuEST Mathematical Sciences requirement.

CIS 180 Introduction to Computer and Information Science (3)

This course provides a unified introduction to the field of Computer and Information Science (CIS). Students will learn fundamental concepts, develop technical and quantitative skills, and explore the application and ethical impact of computing technologies in various contexts, including research, business, service organizations, education, and society at large. Meets QuEST Mathematical Sciences requirement. Fall semesters.

CIS 181 Computer Programming I (3)

This course introduces computer programming using the Python programming language. Students will develop programming skills through a series of projects that teach general programming techniques, with an emphasis on interactive, visual programs. CIS 181 is designed for majors in Computer and Information Sciences, Digital Media, Engineering and Mathematics. Two lecture periods and two one-hour laboratories per week. Meets QuEST Mathematical Sciences requirement.

CIS 190 Strategic Use of Information Technology (3)

This course introduces students to the strategic, tactical and operational aspects of information technology (IT) as it relates to business. It surveys a broad range of topics, challenging students to understand the strategic relevance of IT to every aspect of business including, but not limited to quality, innovation, globalization, competitive advantage, collaboration, and outsourcing. The course

also examines representative best practices of common IT business tools, including MS-Excel, Access, Word and PowerPoint, as well as collaboration tools.

CIS 191 Web Development I: Client Side (3)

This course introduces web site design and development using EXtensible HyperText Markup Language (XHTML) and Cascading Style Sheets (CSS). Students learn standard XHTML and CSS and apply that to create and develop a web site. This course is open to any student in any discipline that desires to understand how web sites are created and developed. Meets QuEST Mathematical Sciences requirement. Spring term.

CIS 251 Hardware and Software (3)

Examines the basic components of hardware and the software of a variety of computers ranging from desktops to personal digital assistants. In addition to understanding the theory of how things work, students will be expected to troubleshoot and find solutions to actual computer problems without knowing in advance whether the problems actually exist or whether the problems are caused by the hardware, software, or both. Prerequisite: CIS 180 or CIS 190. Offered intermittently.

CIS 283 Business Systems Applications (3)

This course acquaints students with a variety of ways in which computer applications are created, evaluated and used in a business environment. Students will participate in the application development process using an object-oriented language such as Visual Basic. Prerequisite: CIS 181. Letter grade only. Alternate Fall semesters: 2017, 2019.

CIS 284 Computer Programming II (3)

This course introduces object-oriented programming using the Java programming language. Students will learn to define their own classes and to understand possible relationships between classes in an inheritance hierarchy. These more general OOP principles will be illustrated through a variety of practical topics including mathematical calculations, string manipulation, file I/O, and basic GUI design. As with CIS 181 Computer Programming I, we will spend a significant amount of time in the lab writing programs that apply ideas discussed in class. Two lecture periods and two one-hour laboratories per week. Prerequisite: CIS 181.

CIS 287 Introduction to Game Design (3)

Through a series of game design and development projects, students will be introduced to a range of video game genres and factors influencing games' playability, entertainment, and educational value. Students will play and then evaluate, from a Christian perspective, both commercial games and games created by their peers. Students will employ a requirements-based iterative software development process, working with a typical set of software tools used to create prototype video games. Prerequisite: CIS 181. Alternate J-terms: 2017, 2019.

CIS 291 Web Development II: Server Side (3)

This course extends CIS 191, Web Development: Client Side to dynamic web site development using server-side technologies. Students will build a web server to provide the home for the interactive, data-driven web site they will create. Topics include: server-side scripting languages, such as PHP and Java Server Pages, interfacing web applications with databases, and advanced topics in hypertext markup languages and client-side scripting. Security issues will be addressed including access control and secured transmissions

and modern software tools for the server-side web application development will be introduced. Development for alternative devices such as mobile and hand-held devices will be introduced. Prerequisite: CIS 191. Fall semesters.

CIS 315 Introduction to Mobile Application Design (3)

Through semester-long mobile application design and development projects, students will be introduced to the range of hardware, software and communication technologies needed to support a web application targeted at mobile computing devices. Students will evaluate, considering both user-oriented and technology-oriented criteria, commercially developed mobile computing applications and applications created by their peers. Students will employ a requirements-based iterative software development process, working with a typical set of software tools used to create prototype mobile applications. Prerequisites: CIS 191 and CIS 284. Alternate Fall semesters: 2017, 2019.

CIS 332 Database Concepts (3)

Relational databases. Semantic object modeling. SQL in both local and client-server environments, in both embedded and stand-alone applications. Prerequisite: CIS 284 or CIS 283 or CIS 291. Fall semesters.

CIS 335 Software Engineering I (3)

The course introduces students to the discipline of software engineering through a series of selected readings, class discussions, and practical learning experiences. The course will survey the issues, approaches, and tools for addressing key areas of software engineering. Including software requirements definition, software architectures, software analysis/design, technical software development, alternative software life cycle models, software process and project management, open source software development, software version and configuration management, software quality assurance and testing. Prerequisite: CIS 332. Alternate Fall semesters: 2018, 2020.

CIS 343 Introduction to E-Commerce (3)

This course provides an introduction to both the strategic and the technical essentials of developing and managing e-commerce sites. Students will research web design and build their own e-commerce site as a final project, with practical application of the principles emphasized in the course material. Team projects will research and report on e-commerce topics throughout the course. Extensive use of Internet research techniques will be emphasized. Topics will include Internet security and authentication techniques, website design and management issues, web access to databases, Internet marketing strategies, electronic payment issues, and enterprise E-commerce tools. Prerequisites: CIS 190 or 191. Alternate Spring terms: 2019, 2021.

CIS 381 Information Systems and Managers (3)

This course explores the way information technology is used to support the decision-making process of managers at all organizational levels. It is designed to show students a variety of ways in which computer-based information systems are used in the business environment. Special attention is given to computer user support and ethical issues in the management of information systems. Prerequisite: CIS 180 or CIS 190. Spring term.

CIS 384 Elements of Computing Systems (3)

Through a series of hardware and software tasks, students are introduced to the lower level design and operation of computers.

Topics include hardware, computer architecture, assembly language, high-level languages and compiler design. Prerequisite: CIS 284. Fall semesters.

CIS 385 Data Structures and Algorithms (3)

Data and procedural abstraction for larger programs. Using the Java language for programming, topics include analysis of algorithms and the implementation of various internal dynamic data structures including strings, linked lists, queues, trees, and networks. These data structures are then used in applications including simulations, parsing, searching and sorting, and others. Prerequisite: CIS 284. Fall semesters.

CIS 391 Computer Science Practicum (1-3)

Practical experience under professional supervision, open to juniors and seniors with at least four computer science courses completed. Prerequisites: Instructor's and Advisor's consent required.

CIS 401 Webmasters and Servers (3)

This course examines that part of information systems that deals with the world of hyperlinks and the World Wide Web. In addition to learning and understanding the technologies used by web servers, creators, and maintainers this course examines the human side of providing long distance "people-less" interfaces for users. Students will learn how to help website owners determine costs, define requirements, develop alternatives, choose solutions, build, deploy, maintain, and evaluate sustainable websites. Ethics in dealing with data security and personal privacy on intranets, extranets, and the Internet as well as long-term societal implications of the technology will also be discussed. Extensive hands-on work developing, building, and maintaining websites and installing, setting up, and using web servers will be performed throughout the course. Prerequisites: CIS 291. Alternate Spring terms: 2018, 2020.

CIS 411 Systems Analysis and Design Concepts (3)

This course introduces students to the art and science of examining and creating information-based system solutions for business problems. Holistic systems approaches such as life cycle development are emphasized. Traditional structured methods, object oriented methods and emerging development paradigms are examined. Students apply systems analysis and design methods using several case studies. They also develop skills to review and assess system analysis and design models. Prerequisite: CIS 381. Letter grade only. Fall semesters.

CIS 412 Systems Analysis and Design Applications (3)

Students will form teams and complete a semester project. The project will require student teams to integrate material from other courses to plan, define, analyze, design, build, test and deploy an information system solution to solve a real business problem. Prerequisite: CIS 411. Letter grade only. Spring term.

CIS 415 Data Communications and Networking (3)

This course introduces the basics of data communication and networking. Students will develop an understanding of the general principles of networking as implemented in networks connected to the Internet. Specific attention will be given to the principles of network architecture and layering, multiplexing, network addressing, routing and routing protocols. Activities include setting up a local area network, the internet, security, network management and network performance analysis. Prerequisite: Junior or Senior status. Alternate Fall semesters: 2017, 2019.

CIS 416 Operating Systems and Computer Architecture (3)

This course introduces the primary functions of a modern operating system through a series of systems software programming assignments. Topics include: systems programming in a Unix/Linux environment, memory management, compilation and linking, process scheduling, virtual memory, system-level I/O, networking and concurrency. Prerequisite: CIS 384. Alternate Spring terms: 2017, 2019.

CIS 418 Artificial Intelligence (3)

This course provides students with an overview of philosophical, ethical, and technical issues related to the field of Artificial Intelligence. Topics include philosophical foundations, intelligent agents, search, knowledge representation & reasoning, inference, probabilistic/stochastic techniques, natural language processing, and near-future trends in AI. Prerequisite: CIS 385. Alternate Spring semesters: 2018, 2020.

CIS 432 Database Applications (3)

Data-centered modeling of an actual corporate application. Client-server approaches to reusability and resource sharing. Prototyping and the project life cycle as approaches to software development. Student projects continue skill development in database design. Prerequisite: CIS 332. Spring term.

CIS 482 Organization of Programming Languages (3)

Study of features of programming languages and of the methods used to specify and translate them. Topics include LISP, virtual machines, syntax and semantics, binding times, scoping rules, implementation choices, procedure calling, and parameter passing. Prerequisite: CIS 385. Spring term.

CIS 487 Interactive 3D Graphics (3)

This course introduces mathematical concepts and programming techniques underlying interactive 3D computer graphics applications (including computer animation, video games and scientific visualization applications). Through a series of projects students will explore the OpenGL graphics API, by way of its current WebGL standard. Topics include modeling, viewing and projection transformations, as well as custom lighting and effects made possible through the OpenGL Shading Language. Prerequisite: CIS 385. Alternate J-terms: 2018, 2020.

CIS 490 Topics in Computer Information Science (3)

Each offering may deal with a different information systems area of current and practical relevance. Topics will be selected based on current and emerging issues, trends and technologies related to information systems. Such topics may include Decision Support Systems, Management Information Systems, computer simulation, advanced displays, intelligent interfaces, system planning and execution tools, Genetic Algorithms, Fuzzy Logic, Knowledge Based Systems, software metrics, information system acquisition models, computer forensics, and specific functional areas such as health care and financial information systems. This course may be taken more than once for credit (with a different topic). Prerequisite: CIS 190. Offered intermittently.

CIS 491 Independent Study (1-3)

Independent study in computer and information science under the direction of an instructor.

COMM 105 Fundamentals of Oral Communication (3)

This course is a study of basic principles of human communication. Modes such as: Intra- and interpersonal, small group and public speaking are examined. Students will develop skills in sharing information and reasoned argument, and examine the ethical responsibilities of oral communicators. Meets QuEST Oral Communication requirement.

COMM 107 Introduction to Communication Seminar (1)

Overview of the communication discipline with an introduction to the breadth of vocational options open to communication graduates. Open to Department of Communication majors only.

COMM 112 Newswriting (3)

Introduction to journalism, including study and practice in writing news, with some attention to issues and controversies in journalism as they affect editors and writers. Fall semesters.

COMM 203 Basic Video and Editing Techniques (3)

Foundational principles of camera operating and editing with attention to core competencies in framing, lighting, and sound; includes basic equipment care and maintenance. Students will gain an understanding of the equipment, techniques, workflows, and language of film in order to develop the skills necessary to complete video projects for a variety of exhibition formats. Course fee \$50.

COMM 205 Principles of Public Relations (3)

Introduction to the nature, history, and current practice of public relations, emphasizing appropriate communication strategies for different publics and contexts including corporate, non-profit and government agencies. The focus will be on the public relations process of research, action planning, communication, implementation, and evaluation. Ethics, media relations, and community relations are also discussed. Spring term.

COMM 207 Communication Design (3)

This course focuses on the principles and practice of visual communication including the use of digital photography, multimedia, publication design and layout, and web site design. Students will analyze and practice creative content development for visual and digital communication using established industry tools and techniques. Fall semesters.

COMM 211 Media in Everyday Life (3) Examines the way media messages are interpreted and used in everyday life. Special consideration of children and adults as consumers of information and entertainment with a specific focus on violence and gender conditioning will be given. Spring term.

COMM 217 Introduction to Film (3)

Training in the language of cinema and video analysis and discussion of the basic issues involved in understanding film as an expressive cultural form. Areas covered include the shot, the scene, camera angles, lighting, montage, mis en scene, staging, camera movement, narrative structure, sound, film and digital media stocks, dialogue, and characterization. Fall semesters.

COMM 218 Mass Media and Society (3)

Overview of the history, organization, economics, content, control, and effects of mass communications in the United States with some comparison to foreign systems. Fall semesters.

COMM 220 Film and HD Production I (3)

An overview of filmmaking styles and techniques, the course will prepare students to work with both film and digital technologies, as well as introduce them to filmmaking practices in fiction, documentary, and alternative cinema. Students will delve deeper into the practical, financial, and aesthetic considerations that shape a film project through hands-on technical instruction, analysis, exercises, and projects. Prerequisites: COMM 203 and COMM 217. Alternate Fall semesters: 2018, 2020. Course fee \$200.

COMM 223 Introduction to Radio (3) An examination of the structure of the radio industry and radio stations. Topics include radio programming formats, use of technology and broadcast sales.

COMM 241 Small Group Communication (3)

Theory, research, and practice related to the structure and functioning of groups, including leadership, decision making, problem solving, and those variables requisite to effective communication within a group. Alternate J-terms: 2019, 2021.

COMM 243 Audio/Visual Newsgathering (3)

This course will introduce students to basic techniques of reporting with and editing sound and video. The emphasis of this course will be on the use of digital audio and video recorders in the field to produce news stories for radio, television and the web. This course will provide fundamental instruction in standard audio and video editing software utilized in the industry. COMM 112 strongly recommended prior to taking COMM 225. Alternate Spring terms: 2019, 2021.

COMM 247 Writing for Mass Media (3)

Introduction to and practice in writing for mass media, with a focus on commercial copy for the electronic media of radio and television. Spring term.

COMM 251 Film History I: 1895–1960 (3)

The course is a comprehensive survey of the medium, its genres and forms. While exploring the Hollywood studio system, European art cinema, documentary and propaganda, and avant-garde/experimental cinema, we will also focus on technological changes (the advent of sound, color, and the age of television). Readings include essays and book excerpts introducing the films covered in the course and their methodologies, including the close analysis of particular movies, studies of national industries, and auteurist approaches. Prerequisite: COMM 217. Alternate Fall semesters: 2017, 2019.

COMM 252 Film History II: 1960–Present (3)

The course maps the evolution of several important tendencies in film history, including the rise of the “new waves” and Third World cinema, the role of women in the industry, the blockbuster, and the impact of globalization and digital technology on film. While exploring the developments in film production, distribution and exhibitions, individual films and artists are situated within their social, cultural, and political contexts. Prerequisite: COMM 217. Alternate Spring terms: 2018, 2020.

COMM 254 Screenwriting I (3)

This course uses scripts from significant films and viewings of those same films to analyze the most important features of film narrative. This course gives an introductory foundation for all other courses in screenwriting and teleplay writing. Fall semesters.

COMM 255 Screenwriting II (3) In this intensive writing seminar, students progress from writing scenes for film and television to beginning consideration of writing an entire feature length/episode length script. Prerequisite: COMM 254. Offered intermittently.

COMM 282 Topics in Media Studies (3) An in-depth exploration of a particular aspect of media studies. Subject matter may include areas such as digital media, popular culture or Christianity and media. The specific topic varies each semester. Please view course subtitle or consult with Instructor for details. Alternate Spring terms: 2018, 2020.

COMM 301 Persuasion: Theory and Practice (3)

Principles and techniques of the art of persuasion as applied to oral discourse. Fall semesters.

COMM 305 Magazine Writing (3)

This journalism course teaches students how to write feature articles for magazines and newspapers, for both printed publications and online publications. It teaches planning, researching, and writing tasks that are essential to creating successful non-fiction feature articles. Crosslisted with ENGL 305a. Alternate Spring terms: 2018, 2020.

COMM 324 Television Production (3)

Introduction to and practical experience in television production studio operations. The course will provide weekly hands-on opportunities to learn best practices in the role and operation of all equipment involved in a studio production. Provides a base knowledge of television production practices, job responsibilities and procedures in the creation of a television studio production. Prerequisites: COMM 203 or permission of instructor.

COMM 310 Fundraising (3)

Foundations of fundraising for communication-related professions, including an overview of fundraising; methods for developing an effective, ethical, and integrated fundraising campaign; best communication practices including solicitation via various communication mediums and building and sustaining mutually beneficial relationships, and evaluating effectiveness of fundraising campaigns. Alternate Spring terms: 2018, 2020.

COMM 313 Relational Communication (3)

Theory, research, and practice of relational communication focusing on issues between romantic partners, friends, and family. Alternate Fall semesters: 2018, 2020.

COMM 317 Advanced Editing and Effects (3)

Training in digital editing software programs such as Apple Final Cut Pro and Avid Digital Express as well as exposure to concepts of composition within scenes and issues of organization within the larger work. Prerequisite: COMM 203 and COMM 217. Priority given to film and media arts and digital media students; others by instructor's consent. Spring semesters.

COMM 319 Sports Broadcasting (3)

This course examines the theory and application of techniques in sports broadcasting. We will examine a number of facets of sports broadcasting, including play-by-play, interviewing and anchoring sportscasts. Sports journalism and the history of this broadcasting specialty are also examined. A hands-on approach to the material is stressed. Alternate J-terms: 2018, 2020.

COMM 320 Film and HD Production II (3)

Intensive instruction and application in advanced filmmaking tools and techniques such as mise-en-scène, camera motion, lighting, and sound. Students will complete group and individual projects that highlight their storytelling and technical skill, as well as demonstrate the direction they intend to head with their creative portfolios. \$50 course fee. Prerequisites: COMM 203, 217, and 220. Alternate Spring terms: 2017, 2019.

COMM 321 Global Indigenous Media (3)

This course looks closely at the media productions of members of groups known today under categorizations such as "aboriginal" and "indigenous." The course explores media and theory relating to ethnographic and collaborative works produced by ethnographic filmmakers alongside aboriginal communities. It also examines media produced independently by indigenous cultures from around the globe, in hopes of seeing commonalities and differences in them, as well as the ways their cultures have affected their production and storytelling techniques. Meets QuEST Non-Western requirement. Spring semesters.

COMM 323 Broadcast Performance and Production (3)

This course will examine the profession of broadcast announcing. Students will investigate the technique of delivery as well as develop an understanding of the skills needed to create a polished, on-air product. Enunciation, pronunciation, volume, tempo, articulation, voice quality and ad-lib announcing will be emphasized.

COMM 327 Latin American Cinema (3)

The formal, aesthetic, historical and theoretical developments of Latin American cinemas will be examined. The course will also focus on the way in which particular cinematic strategies of expression emerge from specific cultural contexts and consider how specific national cinemas participate in and influence larger developments within cinema. Crosslisted with IDNW 200. Meets QuEST Non-Western Studies requirement. Fall semesters.

COMM 328 Methods and Issues in Film Studies (3)

This course will explore the classic texts of film theory from the earliest dreams of what cinema might become in the 1890s through contemporary explorations of film and digital media and their role in global culture. Special attention paid to aesthetics, narrative theory, formal questions, cinema's relationship to other arts, exhibition, understanding the audience and the viewing experience. Prerequisite: COMM 217. Alternate Spring terms: 2018, 2020.

COMM 330 Multimedia Storytelling (3)

This advanced multi-media course examines the production and design of online journalistic content. Topics will include online storytelling, web site planning, organization and production. Students will contribute to a comprehensive multi-media news web site, taking advantage of the convergence of print and broadcast media. Additionally, conceptual and ethical issues related to publishing on the Internet will be discussed. COMM 112 strongly recommended prior to taking COMM 330. Alternate Spring terms: 2017, 2019.

COMM 333 Business and Organizational Communication (3) This course explains how communication constructs and maintains organizational functioning at a variety of levels. For example, students learn about recruitment and socialization, conflict, communication technologies, coworker and team communication, leadership, and predominant theories of organizational communication. Spring term.

COMM 341 Communication Theory (3)

Students will learn about a diverse array of communication theories and distinguish differences among basic types of communication theories, including social scientific/objective, interpretive/humanistic, and critical. Communication theories in the subfields of interpersonal communication, media, rhetoric, intercultural communication, and organizational communication are examined. Fall semesters.

COMM 342 Intercultural Communication (3)

Analysis of communication variables in cross-cultural situations, focusing on the individual, social, and cultural bases of human communication. Fall semesters.

COMM 351 Public Relations Writing (3)

This course focuses building organization-public relationships with a variety of audiences through organizing, writing, and tailoring public relations materials such as news releases, brochures, newsletters, and web writing. Annual reports, basic graphic design, and the publication/printing process are also briefly introduced. The course culminates in preparation and presentation of a final writing portfolio. (Although not a prerequisite, COMM 205 is strongly recommended prior to taking COMM 351.) Fall semesters.

COMM 353 Crisis Communication and Media Relations (3)

Analysis of corporate, institutional and governmental conflict and crises. Consideration given to nature of social conflict, negotiation, problem-solving, crisis planning, spokesperson training, news conferences and news releases. (Although not a prerequisite, COMM 205 is strongly recommended prior to taking COMM 353.) Spring term.

COMM 354 Interpersonal Conflict (3) Analysis of the nature and function of interpersonal conflict. Identification of personal conflict styles as well as productive and destructive communication strategies. Alternate Spring terms: 2018, 2020.

COMM 357 Event Planning (3)

This course prepares students to research, plan, execute, and evaluate small and large scale events. Students will create communication products essential to event planning, including logistical, promotional, and evaluative materials. Alternate Spring terms: 2018, 2020.

COMM 359 Rhetorical Theory (3)

This course surveys the history and major theories of rhetoric from its foundations in ancient Greece to more recent postmodern manifestations. Students will gain a conceptual framework for speaking and writing persuasively as well as evaluating the structure and function of rhetoric in society. Every Spring term.

COMM 360 Topics in Communication (3)

Special investigation into specific areas and applications in the field of communication. Topics will vary with offerings. Offered intermittently.

COMM 363 Documentary and Promotional Film Production (3)

This course will introduce students to the methods and practices of documentary, promotional, corporate and educational production for film. Students will learn to write persuasive non-narrative scripts, use professional interview techniques, perform camerawork, record sound in the field, research music and do specialized editing assignments. Each student will have the opportunity to engage in

service learning by creating a documentary/promotional video for a client. Course fee \$50 Prerequisite: COMM 203. Alternate Fall semesters: 2018, 2020.

COMM 365 Media Law and Ethics (3)

This course offers instruction on the ethical and legal responsibilities and freedoms of print, broadcast, and online media under the U.S. Constitution, federal and state statutes, administrative law, common law and Christian codes of ethics. Specific topics include libel, privacy, contempt, copyright, broadcast regulation, the court systems, commercial speech, prior restraint, access, the civil and criminal judicial processes and obscenity. Fall semesters.

COMM 372 Alternative Approaches to Journalism (3)

This course will teach students how to produce media content via new media platforms, including blogs, podcasts and mobile media. Students will also explore social media and its journalistic uses. Although not a requirement, COMM 112 is strongly recommended prior to taking this course. Pre- or concurrent registration: COMM 225. Alternate Spring terms: 2017, 2019.

COMM 374 Topics in Media Production (3)

Rotating course options will include advanced, specialized courses in media production, with specific application to professional competencies in convergence journalism and media. Prerequisite: COMM 203 and {COMM 112 or COMM 247}. Course fee \$50. Alternate Spring terms: 2018, 2020.

COMM 376 Topics in Journalistic Writing (3)

Rotating course options will include advanced topics in journalistic writing, such as travel, sports, entertainment, music, and humor writing. Prerequisite: COMM 112. Alternate Fall semesters: 2018, 2020.

COMM 380 Advanced Topics in Film Production (3)

Advanced instruction in a specialized area of film production. Courses will cover topics such as cinematography and lighting, directing and producing, as well as advanced postproduction and sound aesthetics for film. Focuses on professional best practices and the function of each role in relation to other vital components in the film production process. Prerequisites: COMM 203 and COMM 217. Strongly recommended: COMM 220. Spring term only. Course fee \$50. Alternate Spring terms: 2018, 2020.

COMM 382 History and Theory of Digital Media (3)

In this reading-intensive course, we will explore how digital media imitate, advance or withdraw from the accomplishments of older devices, how artifacts of specific media become desirable outcomes in others, and how these past processes impact the design and innovation of new tools. We will define new media and discuss the various applications of digital technology in contemporary culture (filmmaking, YouTube and social networks, e-books, blogs, architecture and museums). Alternate Spring terms: 2019, 2021.

COMM 391 Communication Practicum (1-3)

Work experience under professional supervision in such areas as broadcasting, organizational communication, Christian communication, public relations and information, advertising, entertainment, and visual media. Open to junior and senior communication students who have completed at least four communication courses.

COMM 392, 492 Student Media Lab (1-3)

This course is designed to provide oversight coordination and instruction for the production of student media. Students will be introduced to the basic processes of production associated with different media, will be engaged with questions related to the ethical and professional practice of journalism and media in a college context, and will be exposed to a model of multi-platform media production that is increasingly common in the world of journalism at large. Students taking this course for credit will earn credit hours commensurate to their responsibilities in the production process.

COMM 420 Junior/Senior Film Project (3)

Students will gain intensive training in the complete experience of filmmaking. Select student scripts will be produced from start to finish, including funding, pre-production, production, post-production, promotion and presentation. Students will serve in at least one capacity on each film project (e.g. director, producer, etc.). Course fee \$50. Prerequisites: COMM 203 and COMM 217. Pre- or concurrent registration: COMM 220. Alternate Fall semesters: 2017, 2019.

COMM 426 Senior Public Relations Campaign Project (3)

Senior Public Relations majors will have a “hands-on” capstone opportunity by providing public relations consultation to a non-profit client. The project will be under the direction of a faculty advisor and culminate in a presentation of the group’s findings to the client. Participation will be limited to a select group of students chosen via an application process conducted by the instructor. Fall semesters.

COMM 491 Independent Study (1-3)

Independent study of research in communication under the supervision of an instructor whose approval must precede enrollment.

COMM 493 Communication Senior Seminar (3)

This course instructs students in vocation and professional development, examines the relationship between faith and students’ academic discipline, and engages advanced research in communication ethics.

COMM 497, 498 Major Honors (3, 3)

Independent research program for junior- and senior-level students who have strong academic record for five previous semesters of college study. Prerequisite: Overall G.P.A. of 3.5; major G.P.A. of 3.7; and departmental approval.

CRIJ 101 Introduction to Criminal Justice (3)

Evolution of the adult criminal justice system, primarily in the U.S., focus on Pennsylvania, with some attention to cross-cultural comparison and contrast; issues in defining “criminal” and “justice”; critical discussion of steps and processes in criminal justice system and various public demands for change. Meets QuEST Social Sciences requirement.

CRIJ 201 Introduction to Law Enforcement (3)

The course examines historical and contemporary practices and trends in law enforcement concerning the role of police personnel in relationship to community, courts, corrections, and constitutional limitations. The following aspects of the police occupation are discussed: necessary qualifications to become a police officer, recruitment process, job analysis, the selection methods, and the police training practices.

CRIJ 259 Criminal Law and Court Procedures (3)

Evolution of and difficulties in defining and codifying criminal law; discussion and ramifications of key laws/cases for practitioners in adult and juvenile justice systems; rationale for and issues in multi-level (centralized and decentralized) systems; basic legal terminology for practitioners in law enforcement, court services, and corrections. Prerequisite: CRIJ 101.

CRIJ 282 Restorative Justice (3)

This course focuses on the fundamental principles and practices of restorative justice within the United States and around the world. It examines historical values and assumptions that include Biblical and spiritual origins, and current principles and practices at community, national and international levels including the impact of restorative justice on victims, offenders, communities and criminal justice systems. This course examines policy implications and evaluates the potential of restorative justice to address social problems marked by human conflict. It will examine empirical evidence, identify critical issues in theory or practice, and review the integrity and future direction of restorative justice.

CRIJ 307 Comparative Criminal Justice Systems (3)

This course is designed to provide students with an overview of the various degrees of commonalities, differences, and challenges that exist across countries as justice systems are structured and implemented. Comparatives between countries will be made with the United States. It can be argued that approaches to justice systems implemented by other countries can in fact, benefit the United States socially, politically and economically. This course will compare and contrast legal, policing, correctional and victim-offender policies of other countries with the United States. Students will demonstrate an understanding of the significance of diversity within criminal justice systems through culture, religion and politics. Prerequisite: CRIJ 101.

CRIJ 309 Juvenile Delinquency (3)

This course will examine the sociological and criminological phenomena of juvenile delinquency and explore the historical development of the juvenile justice system. Students will gain a basic understanding of juvenile delinquency by analyzing the scope of the problem, interpreting theories of causation and resolution, and evaluating current programming in this field. Prerequisite: CRIJ 101 or SOAN 101.

CRIJ 348 Ethics in the Criminal Justice System (3)

An introduction to ethical issues relating to various aspects of the criminal justice system such as the morality of the types of punishment, the death penalty, justice in the courts, and police conduct. Prerequisite: IDCR 151. Meets QuEST Ethics requirement.

CRIJ 362 Criminology (3)

This course will focus on the historical nature and current theoretical criminological frameworks of the study of crime. Crime will also be examined in light of the Word of God and the Sin Nature. It will offer an analytical structure in order to understand the facts and criminological patterns and trends. It will explore the broad field of criminological explanation to include definitions of crime, criminal activity, and most importantly, how such theories are integrated within the criminal justice system (courts, corrections, law enforcement), and public policy. Prerequisite: CRIJ 101.

CRIJ 366 Corrections: Incarceration, Probation, Parole (3)

Evolution of and debates concerning community and non-community based correctional programs; relationships between

correcting, reforming, rehabilitating, and punishing; tensions between protection of public safety and rights of the accused; evaluation of incarceration, probation, parole, diversion, alternate, and restorative justice programs; issues in “proactive” and “reactive” debate. Prerequisite: CRIJ 101.

CRIJ 367 Victimology (3)

Victimology is designed to aid in investigating the relationship between crime and its impact on victim’s lives. This course will facilitate victimization study, including the relationship between victims and offenders, the interactions between victims and the criminal justice system, and the connections between victims and other societal groups and institutions. The course investigates the ways in which each of us, as citizens in a global community, can aid in the healing and restoration of those whose lives have been shattered by crime. Prerequisite: CRIJ 101.

CRIJ 382 Topics in Criminal Justice (3)

Selected topics in criminal justice. Possible topics may include women in the criminal justice system, comparative law enforcement, ethics and criminal justice, and international justice issues. May be repeated for additional credit as the topic/study changes. Prerequisites: CRIJ 101, three additional credits in criminal justice courses, and Instructor’s consent.

CRIJ 452 Criminal Justice Senior Seminar (3)

Senior students will process and analyze internship experiences as well as prepare for professions in criminal justice. Students will integrate this with theory as well as theological and ethical concerns. A systematic analysis of criminal justice systems issues and practice will be stressed.

CRIJ 491 Independent Study (1-3)

Junior and senior students with at least a 3.0 GPA in their major may select a problem for independent investigation in a special area of Criminal Justice. Prerequisites: Instructor and Department Chair consent.

CRIJ 497, 498 Major Honors (3,3)

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

D

DANC 101 Ballet I (1)

Fundamentals of classical ballet technique. Emphasis placed on proper placement, technique and classical ballet vocabulary. Meets QuEST Wellness requirement or can meet the QuEST Arts requirement when taken with DANC 305. (This course may count for only one QuEST requirement.)

DANC 102 Jazz and Dance Theatre I (1)

An introductory-level studio course in jazz dance. This course will focus on basic jazz steps, isolations, strength, jumps, and turns. Meets QuEST Wellness requirement or the QuEST Arts requirement when taken with DANC 305. (This course may count for only one QuEST requirement.)

DANC 103 Modern I (1)

Beginning level of modern technique using basic component of space, time and energy. Class work will focus on basic modern

techniques combined with dance improvisation techniques. Meets QuEST Wellness requirement or the QuEST Arts requirement when taken with DANC 305. (This course may count for only one QuEST requirement.)

DANC 104 Tap I (1)

The course establishes the fundamentals of tap technique. Proper executions of steps such as shuffle, flap, ball change, pull backs, and pickups, among others. Meets QuEST Wellness requirement or the QuEST Arts requirement when taken with DANC 305. (This course may count for only one QuEST requirement.)

DANC 105 Dance Pedagogy (2)

An introduction to dance pedagogy. This course will explore aspects of teaching dance to children (K-12) in both public and private sectors. Students will consider historical trends and as well as current methods of dance pedagogy.

DANC 111 Dance Performance Ensemble (0.5)

Participation in dance performance ensembles as supervised and approved by the Dance faculty. Four-semester requirement for Dance majors.

DANC 201 Ballet II (1)

Fundamentals of classical ballet technique. Emphasis placed on proper placement, technique and classical ballet vocabulary at an intermediate level. Prerequisites: Ballet I or Instructor's consent.

DANC 202 Jazz and Dance Theatre II (1)

An introductory-level studio course in jazz dance. This course will focus on basic jazz steps, isolations, strength, jumps, and turns. Students who have taken Jazz I will continue development of jazz techniques. Prerequisite: DANC 102.

DANC 203 Modern II (1)

Beginning level of modern technique using basic component of space, time and energy. Class work will focus on basic modern techniques combined with dance improvisation techniques. Students who have taken Modern I will work toward an intermediate level of modern techniques. Prerequisite: DANC 103.

DANC 204 Tap II (1)

The course establishes the fundamentals of tap technique. Proper executions of steps such as shuffle, flap, ball change, pull backs, and pickups, among others. Students who have taken Tap I will work toward an intermediate level of tap dance. Prerequisite: DANC 104.

DANC 301 Ballet III (1)

For students with extensive ballet training. Intermediate to advanced ballet technique with use of complex classical ballet vocabulary, musicality and artistry. Prerequisite: DANC 201.

DANC 302 Jazz and Dance Theatre III (1)

Building on Jazz I and II, this advanced jazz dance technique course includes more advanced use of isolations, turns, jumps and combinations of jazz movement from various American jazz dance styles. Prerequisite: DANC 201 and DANC 202.

DANC 303 Modern III (1)

Intermediate/advanced level of modern dance. Deeper understanding and execution of modern techniques and improvisation. Prerequisite: DANC 203.

DANC 304 Dance Ministry (2) Explore liturgical dance and various ways dance can be used as a ministry. Learn how to create liturgical dance, organize a dance team and how to perform on church stages. Prerequisite: DANC 201.

DANC 305 Dance History (2)

Origins of dance to the present. Dance as it has developed from ancient, religious and ritualistic movement to post-modernism. Emphasis upon ancient forms, courtly life, the development of ballet, modern dance, post-modernism, and jazz.

DANC 314 Improvisation (2)

Introduction to the world of dance improvisation in terms of spatial design, dynamics, rhythm, and motivation. This course explores the utilization of dance improvisation as a fundamental choreographic tool and a vehicle for creative thinking.

DANC 381 Dance Practicum (1-3)

Dance work under the supervision of a dance professional. Open to junior and senior dance majors who have completed at least four Dance courses. Prerequisite: Four DANC courses.

DANC 401 Ballet IV (1)

For students with extensive ballet training. Advanced ballet technique with use of complex classical ballet vocabulary, musicality and artistry. This level would include pointe work. Prerequisite: DANC 301.

DANC 402 Jazz and Dance Theatre IV (1)

Building on Jazz I, II, and III this course explores dance technique and combinations inspired by Broadway musicals. Prerequisite: DANC 201 and DANC 202.

DANC 403 Modern IV (1)

Intermediate/advanced level of modern dance. Deeper understanding and execution of modern techniques and improvisation. Prerequisite: DANC 303.

DANC 404 Choreography (2)

Introduction, development and refinement in the art of making dances. A study of the fundamental elements and structure of dance composition. Class format is approached through improvisation and choreographic assignments. Prerequisite: DANC 101-104.

DANC 470 Dance Capstone Practicum (1-3)

Senior Dance majors will conduct a significant final portfolio project as supervised and approved by the Dance faculty.

DANC 491 Independent Study (1-3)

Independent study or research in dance under the supervision of an instructor. Prerequisite: Instructor's approval.

DIGM 1xx Foundations in Creative Digital Media (3)

Foundational principles, ideas, technologies, and practices required for the Digital Media major.

DIGM 2xx Video and Church Media Seminar (1)

Overview of content and skills within the Digital Video and Story concentration and the Church Media concentrations.

DIGM 2xx Game and Art Design Seminar (1)

Overview of content and skills within the Game Design and the Graphic Design and Digital Art concentrations.

DIGM 490 Senior Seminar and Project (4)

Digital Media studies are brought together in reflection, career exploration, and the creation of a digital media project.

E

ECON 110 Economics of Social Issues (3)

An examination of particular contemporary social issues such as crime, poverty, environmental quality, discrimination, healthcare, international trade, and unemployment, using analytical tools of economics. Fundamental aspects of the price system are emphasized throughout the course. Meets QuEST Social Sciences requirement. Does not meet Department of Business major requirements.

ECON 117 Issues in Environmental Economics (3)

Introduction to the nature and application of the methods of economic analysis to the problems and issues associated with the environment. Deals with case studies and policy options relevant to local, national, and international environmental concerns. Meets QuEST Social Science requirement.

ECON 120 Principles of Macroeconomics (3)

A study of the fundamentals of economic analysis and basic economic institutions, with an emphasis upon understanding the impact of individual and social choices upon aggregate output, employment, inflation, relative income distribution and the environment. Monetary, fiscal and social welfare policies are evaluated in light of historical and current experience, with an attempt to understand the role of changing institutional structures, social values, and concerns for justice in an increasingly globally integrated world. Meets QuEST Social Science requirement.

ECON 220 Principles of Microeconomics (3)

A study of the fundamentals of individual market behavior, emphasizing the use of demand and supply analysis. The focus is upon understanding the implications of actions taken by individual decision-makers, operating within various market structures, upon the allocation and use of resources, distribution of income, and ability of markets to meet the needs and desires of individuals. Special attention is given to understanding the impact of market outcomes upon social and individual justice, and upon the environment. Prerequisite: ECON 120.

ECON 260 Cross Cultural: Perspectives on Development (3)

This course serves as an introduction to the topic of development through experiential education within a cross-cultural setting in a developing country. Students look at the theology of poverty, and then get an overview of economic and community development from a faith-based perspective. The role of the Church in the development process will also be explored within the study of "transformational development." Cross-listed with IDCC 260. Course fee to be announced.

ECON 301 Intermediate Macroeconomics (3)

Examines the development of various macroeconomic models as tools for analyzing factors which influence the level of national income, output, inflation, employment, etc. Explains the usefulness and limitations of these models in determining appropriate fiscal, monetary and international trade policies. Prerequisites: ECON 120; ECON 220; [MATH 107, MATH 108, or MATH 111] and [STAT 269 or STAT 281].

ECON 302 Intermediate Microeconomics (3)

This course studies individual market behavior and applies microeconomic concepts to decision-making processes of business. Primary focus is on demand, cost, production, market structure, and pricing policies. Prerequisites: ECON 120; ECON 220; [MATH 107, MATH 108, or MATH 111] and [STAT 269 or STAT 281].

ECON 303 Comparative Political Economy (3)

This course examines the historical development of economic analysis and current economic schools of thought in a philosophical, social, political, and cultural context. Included among the various schools of thought to be examined are "Classical" and "Modern Liberalism," Marxian, Keynesian, "New" Classical/Supply-Side Analysis, and Institutional. An emphasis is placed upon examining and critiquing the underlying methodological and philosophical principles of each school of thought, and exploring the implicit and explicit links between economics and politics. Prerequisites: ECON 120 and 220.

ECON 307 Money and Financial Markets (3)

The role of finance in the economy and the nature of money and other financial assets. Emphasizes the role of principal financial markets and their relationship to the economy through study of fund flows, monetary theory, and policy. Prerequisites: ECON 120 and ECON 220, [MATH 107, MATH 108, or MATH 111] and [STAT 269 or STAT 281]. Cross listed with FINA 307.

ECON 309 Topics in Economics (3)

Each offering of this course will deal with a different area of economic analysis. Possible topics include public finance, comparative economic systems, urban and regional economics, and econometrics. Prerequisites: Dependent on topic.

ECON 312 Economic Development (3)

Examination of the process of economic development with reference to developing countries. Considers a variety of case studies and viewpoints. Prerequisites: ECON 120 and 220.

ECON 315 The Economics of Wages and Employment (3)

The economics of labor markets, labor unions, and collective bargaining. Topics include labor force participation, labor mobility, employment and unemployment, wage rate determination (education, training, labor market discrimination, and collective bargaining strategies), and public policies affecting income distribution. Both orthodox and heterodox frameworks of analysis are considered, with attention placed on questions of justice and equity. Prerequisites: ECON 120 and 220.

ECON 371 Mobilizing Financial Resources for Development (3)

The goal of the course is to help the student gain a practical understanding of the fundamental concepts of microfinance, savings programs (VSLAs), and impact investing through small and medium enterprises (SMEs) by assessing customer needs and expectations; designing new products and delivery mechanisms; the various lending methodologies; the debate around regulation and supervision; assessing the quality of the portfolio; gauging financial viability; addressing governance and cultivating effective donor relations. Finally, all of this will be attempted with an eye toward assessing the theological importance and relevance of microfinance when attempted from a Christian perspective. Prerequisites: ECON 120 and ECON 220.

ECON 391 Economics Practicum (1-3)

Practical business-related experience under professional supervision or supervised participation as a teaching assistant or in department courses. Open to juniors and seniors in the Department of Business. Others by department approval. This course does not meet major requirements.

ECON 393 Field Experience in Development: Developing Country or Urban Development (0-3) Field experience in urban development or developing country. Students fulfilling this requirement through IBI, IDCC 260 (2nd developing country cross-cultural in addition to ECON 260) should register for ECON 393 for 0 credits. Instructor's consent required. Prerequisite: ECON 260.

EDSP 207 Introduction to Special Education (3)

The purpose of this course is to provide students with an introduction to the historical, philosophical, ethical, and legal foundations of special education. Additionally, the educational and psychological factors related to human exceptionality will be discussed with the context of each of the 13 exceptionalities outlined in IDEA '04, as well as an introduction to principles of inclusive education and Universal Design for Learning (UDI). Requires updated security clearances. Prerequisite: Required security clearances on file. Co-requisites: EDUC 203 and TEP 210.

EDSP 303 Disability and Society (3)

This course presents an overview of disability in the United States focusing on issues arising out of the pluralism of disability by race, ethnicity, gender and socio-economic status. The course engages students in the study of the most prevalent types of disability, current societal views, attitudes and perceptions on disability, the effects of inequality, prejudice and discrimination on individuals with disability and a framework for understanding God's perspective on disability that leads them to develop a proper Christian worldview regarding individuals and disability. Cross-listed as IDPL 300. Meets QuEST Pluralism requirement. Offered intermittently.

EDSP 307 Inclusion Practices (3)

In this course students will learn to use formal and informal assessment to guide instructional planning and decision making for the purpose of providing appropriate programs for all learners with special needs in the regular education classroom, including learners from culturally and/or linguistically diverse backgrounds. Special attention will be given to instructional adaptations and accommodations within the general curriculum, instructional strategies, evidence-based practices, Universal Design for Learning (UDL), differentiated instruction, creating a positive learning environment, behavioral management techniques and team collaboration. Prerequisite: Admission to the Teacher Education Program and EDSP 207. Co-requisites: TEP 310 or TEP 312 or TEP 316.

EDSP 385 Communication Disorders (3)

This course is designed to acquaint students with the fields of speech language pathology and audiology. We will discuss a range of communication processes as well as common communication disorders that affect these processes across the lifespan. Special emphasis will be given to what speech-language pathologists (SLPs) and audiologists do to facilitate communication in individuals with communication impairments including family interventions and direct interventions. Fall semesters.

EDSP 396 Infants, Toddlers, and Families (3)

This course examines the role of the family and other caregivers in the development of infants and toddlers (ages 0-3). Early intervention and assessment techniques will be explored along with developmentally appropriate practices. Students will become familiar with the Individualized Family Service Plan (IFSP), and other resources and services that may be available to infants and toddlers and their families. Prerequisite: {HDFS 209/PSYC 209 or HDFS 210/PSYC 210}. Cross-listed with HDFS 396.

EDSP 397 Instructional Strategies for Learners with Mild and Moderate Disabilities (3)

In this course students will learn to use formal and informal assessment to guide instructional planning and decision making for the purpose of providing appropriate educational programs for learners with mild and moderate disabilities, including learners from culturally and/or linguistically diverse backgrounds. Special attention will be given to instructional adaptations, accommodations and modifications within the general curriculum, and evidence-based intervention strategies for reading, writing, mathematics and general learning strategies. Prerequisite: EDSP 307. Spring term.

EDSP 398 Instructional Strategies for Learners with Severe and Profound Disabilities (3)

In this course students will learn to use formal and informal assessment to guide instructional planning and decision making for the purpose of providing appropriate educational programs for learners with severe and profound disabilities, including learners from culturally and/or linguistically diverse backgrounds. Special attention will be given to instructional adaptations, accommodations and modifications within functional curriculums, evidence-based instructional strategies, differentiated instruction, creating a positive learning environment, and team collaboration. Prerequisite: Admission to the Teacher Education Program and EDSP 307. Concurrent registration in TEP 420 and EDSP 409.

EDSP 399 Positive Behavior Support for Learners with Emotional, Behavioral and Social Disabilities (3)

This course is designed to engage learners in thoughtful exploration and discussion of models of human behavior, researched-based principles of behavior management and practical application of behavioral and educational strategies used to create a classroom climate that promotes positive behavior for all learners, including learners from culturally and/or linguistically diverse backgrounds. A strong emphasis will be placed on those learners with behavioral, emotional and social disabilities. Included will be foundations in understanding, assessing and managing behavior, strategies to prevent and remediate challenging behavior, and strategies for teaching prosocial replacement behaviors. In addition, the design of functional assessment and positive behavior supports will be addressed. Prerequisite: EDSP 307 and admission to the Teacher Education Program.

EDSP 409 Psychological Testing (3)

This course is a detailed study of screening, assessment, and diagnostic procedures and instruments used in determining eligibility, and planning and evaluating instruction for individuals with disabilities from birth through 8th grade who are accessing the general education curriculum or functional curricula. It includes the historical, philosophical, and sociological foundations of assessment and its relationship to educational decision-making and instructional design, measuring student attainment of essential skills in a standards-based environment, and interpreting assessment data to

inform educational decisions. Prerequisites: Admission to the Teacher Education Program, and EDSP 307. Concurrent registration in TEP 420 and EDSP 398.

EDUC 201 Education and American Society (3)

Examines education in historical, philosophical, and sociological perspective, with emphasis on the relationship between schools and their socio-cultural contexts.

EDUC 203 Educational Psychology (3)

Study of theoretical concepts and principles necessary for understanding human thought and behavior in a wide variety of educational environments. Focus on variables related to teaching-learning processes: learning, memory, transfer, problem solving, motivation, growth and development, exceptionalities, instructional planning, assessment. Emphasis on research methodologies employed by educational psychologists and interpretation of empirical research findings. Meets QuEST Social Sciences requirement. Cross-listed with PSYC 203. Prerequisite: required security clearances on file. Co-requisites: EDSP 207 and TEP 210, or by permission of instructor.

EDUC 205 Cultural and Political Geography (3)

This course will introduce students to the interdisciplinary field of social studies. The course will include content from the disciplines of history, geography, economics, and anthropology. Students will learn ways in which history and economics are influenced by physical and human geography. The course will use the study of geography to develop students' understanding of interactions between individuals and groups in historical and contemporary contexts.

EDUC 208 Teaching English Language Learners in K-12 Schools (3)

This course provides an experiential approach to studying linguistic and cultural diversity in the classroom, as well as theories and issues of second language acquisition. Students will acquire knowledge, skills, and dispositions necessary for teachers to address instructional needs of English Language Learners (ELLs). Students will learn strategies for creating classrooms that promote language and content learning, as well as an appreciation for diversity. This course includes 20 hours of self-directed cross-cultural experience, outside of the public school system. Open to sophomore status or higher.

EDUC 209 Principles and Structures of Mathematics (3)

This math content course will give students deep knowledge of the foundational math content that is covered in the elementary grades. While students will already have learned some of this content during their own K-12 experience, the research on mathematics teaching and learning in the U.S. tells us that most students will have significant gaps in their understanding and many will have negative affect toward the study of mathematics. By providing them with a strong foundational understanding of topics such as number theory, algebra, fractions, and geometry, students will be better prepared cognitively and affectively to teach these topics to children. Course objectives will be aligned with the PA Academic Standards and Assessment Anchors for elementary grades.

EDUC 212 Language Development (2)

Principles of language development during early childhood years: theory, structure, semantics, and phonetics. Sociocultural influences and resultant implications, relationships of language development and reading readiness, and basic assumptions for a language development program.

EDUC 226 Children's Literature (3)

Critical and extensive study of children's literature and its application to the classroom with attention to requirements of text, illustration, and historical development. Includes exploration of a variety of genres, socio-cultural considerations, censorship issues, and technology implications.

EDUC 301 Literacy: Climate, Curriculum and Instruction I (with Field Experience Block) (3)

Introduction to reading theory for the primary grades. Emphasizes the transactional nature of the reading and writing process, the classroom teacher's role, approaches to early literacy practices, and the relationship between assessment and instruction. Includes the connection of reading, writing, speaking, and listening to the total curriculum. Prerequisite: Admission to the Teacher Education Program. Co-requisites: EDUC 303, 330, and TEP 312. Fall semesters.

EDUC 302 Literacy: Climate, Curriculum and Instruction II (with Field Experience Block) (3)

Examination of reading, writing, speaking, and listening in the elementary intermediate grades. Emphasis on concepts of literacy as students transition from "learning to read" to "reading to learn." Includes content-specific subjects, study skills, and the use of technology. Prerequisite: Admission to the Teacher Education Program, EDUC 301 and {EDUC 330 or EDUC 331}. Co-requisites: EDUC 304 and {TEP 314 or 318}. Spring term.

EDUC 303 Mathematics: Climate, Curriculum and Instruction I (with Field Experience Block) (3)

Teaching strategies for mathematics in the primary grades including children's development of number ideas, problem solving, computation, calculator, and computer applications, and philosophy and content of primary math programs. Prerequisite: Admission to the Teacher Education Program and EDUC 209. Co-requisites: EDUC 301, EDUC 330 and TEP 312. Also open to interested students who are not pursuing teacher certification. Fall semesters.

EDUC 304 Mathematics: Climate, Curriculum and Instruction II (with Field Experience Block) (2-3)

Teaching strategies for math in the intermediate grades including integers, rationals, continuation of mathematical problem-solving, geometry, metrics, assessment, error diagnosis at pre-algebra level, use of calculators and computers in math programs and philosophy and content of intermediate grade math programs. Prerequisite: Admission to the Teacher Education Program and EDUC 209 and EDUC 330. Co-requisites: EDUC 302 and {TEP 314 or TEP 318}. Spring term.

EDUC 305 Middle Level Methods (3)

This course will provide students with opportunities to explore the school-related world of young adolescents. The purpose of the course is to show the intersection of school and adolescence and how this intersection can best be structured to meet the needs of middle school students. The course will introduce students to the philosophy of middle schools and show how effective middle schools and middle school classrooms address the unique needs of young adolescents. Students in this course will also be enrolled in a field experience in a grade 6-8 setting. In this field experience they will be able to apply their understanding of young adolescents and the middle school philosophy to a real life context. Prerequisite: Admission to the Teacher Education Program. Co-requisites: EDUC 331 and TEP 316. Fall semesters.

EDUC 309 English Language Learning in TESOL/ESL Classrooms (3) This course examines the linguistic and grammatical structures of English as contextualized in an English language development classroom. Students will examine and apply these concepts with an emphasis in integrating them into their teaching. Prerequisite: EDUC 208. Spring term.

EDUC 311 TESOL/ESL Methods and Assessment (3)

This course examines traditional and current methodology and assessment practices in the teaching of English as a second and foreign language. This course focuses on English language teaching in diverse contexts to a broad range of ages and levels, in the four domains; reading, writing, speaking, listening. This course aligns language acquisition theory with lesson design, delivery, and assessment. Prerequisite: TEP security clearances, EDUC 208 and EDUC 309.

EDUC 325 Preschool Field Experience (0)

In this field experience, early childhood education minors will spend approximately 80 hours in a Lab School classroom at the Early Learning Center, supervised by an ELC Master teacher. Students will do a minimal amount of classroom observation to become acclimated to their particular context, but most of the time will be spent working with children individually, in small groups, and large group settings. Students will complete assignments from concurrent courses, using the PA Learning Standards for Early Childhood. Prerequisite: Required security clearances on file. Pre- or concurrent registration in EDUC 301, and EDUC 303.

EDUC 330 Instructional Design I (3)

Students develop instructional planning and assessment skills by applying a systems model of instructional design. Emphasis is on thinking and decision-making processes necessary for developing instruction and evaluating the achievement of learning goals in elementary and early childhood learning environments. Topics include instructional goals, learning outcomes, content analysis, classroom assessment strategies, instructional objectives, instructional technology, instructional sequences, lesson planning, and unit planning. Prerequisite: Admission to the Teacher Education Program. Co-requisites: EDUC 301, EDUC 303 and TEP 312. Fall semesters.

EDUC 331 Instructional Design and Assessment for Middle and Secondary Grades (3) Students develop instructional planning and assessment skills by applying a systems model of instructional design. Emphasis on thinking and decision-making processes necessary for developing instruction and evaluating the achievement of learning goals in secondary-level learning environments. Topics include instructional goals, learning outcomes, content analysis, classroom assessment strategies, instructional objectives, instructional technology, instructional sequences, lesson planning, and unit planning. Prerequisite: Admission to the Teacher Education Program and EDUC 203. Co-requisites: EDSP 307 and {TEP 310 or TEP 316}.

EDUC 342 Social Studies: Climate, Curriculum and Instruction for Elementary School (3) Consideration is given to the aims, content, and organization of social studies appropriate to the elementary school and to methods and materials utilized in social studies. Prerequisite: Admission to the Teacher Education Program. Pre- or concurrent registration with EDUC 205. Co-requisites: EDUC 302, EDUC 304, EDUC 347 and {TEP 314 or TEP 318}. Spring term. Also open to interested students who are not pursuing teacher certification.

EDUC 346 Socio-Cultural Perspectives on Education (3)

Study of socio-cultural variability and diversity in educational settings. Theoretical, empirical, and applied analysis of the effects of cultural variables (e.g., socioeconomic, ethnic, racial, linguistic, familial) on teaching-learning processes, instructional resources, and educational systems within a variety of learning environments (e.g., urban, suburban, rural, transient). Prerequisite: IDCR 151. Meets QuEST Pluralism requirement. J-term and Spring term.

EDUC 347 Science: Climate, Curriculum and Instruction for Elementary School (3)

A lecture and activity designed methods course based on the National Science Education Standards (NSES). Emphasis on development of critical thinking skills, inquiry-based learning activities, classroom laboratory/activity safety procedures, integration of science with other content areas, participation in environmental programs, and application of learning theories. Prerequisite: Admission to the Teacher Education Program and BIOL 106 or PHSC 102. Co-requisites: EDUC 302, EDUC 304, EDUC 342 and {TEP 314 or 318}. Spring term only.

EDUC 356 Moral Education (3)

Attempts of American schools to facilitate moral development are examined, from colonial religious training to recent curriculum models and instructional strategies. The relationship between moral education, ethical theory, and national moral debates is explored, with particular attention to the implications of contemporary moral issues for American educational institutions. Prerequisite: IDCR 151. Meets QuEST Ethics requirement. J-term.

EDUC 362 Education Practicum: Socio-Cultural Variability (3)

Structured opportunities for students to experience educational environments that reflect significant degrees of learner diversity (e.g., socioeconomic, ethnic, racial, linguistic, familial). Students spend off-campus time observing, analyzing, assisting, and completing course assignments in the field. Class sessions engage students in group discussion, reflection, and problem-solving activities related to cultural variables within their particular field placements. Prerequisite: Required security clearances on file. Pre- or concurrent registration in EDUC 346. Spring term.

EDUC 401 Seminar in TESOL/ESL (2)

This course encourages students to view the field of English language learning in multiple contexts. Students will learn from global and local professionals in TESOL and will consider these contexts while developing their philosophy of teaching. J-terms. Prerequisite: EDUC 309.

EDUC 402 TESOL/ESL Internship (1)

This 40 hour internship involves observing, lesson planning, and reflective teaching in a setting where English is taught as another language. This course requires clearances and that students provide their own transportation for the field experience. Prerequisite EDUC 208, 309, 311 and clearances on file.

EDUC 407 Student Teaching Seminar (1)

This seminar is intended to be part of the senior capstone experience (along with EDUC 420) for our students. Students will examine critical issues in Education and schools. Faculty will support student reflection on these issues and students' responses as Christians in the field of Education. Faculty will also use this time to clarify essential practices to enhance the professional development semester. Faculty or supervisors may lead the seminars or may bring in experts to speak

on a specific topic. Prerequisite: Approval for the Professional Semester. Co-requisites: EDUC 420 and {TEP 432 or TEP 433 or TEP 434 or TEP 439}.

EDUC 414 Developmental Programming: Curriculum and Instruction for Early Childhood (3)

Study of the theory and methods of building programs to facilitate the appropriate development of preschool children with special emphasis on operational and administrative procedures. Prerequisite: Admission to the Teacher Education Program and HDFS 210/PSYC 210. Co-requisites: EDUC 415 and {EDUC 465 or TEP 420}.

EDUC 415 Evidence-based Practices in Early Childhood Education (3) Considers the connection and application of theory and practice and enhances the student teaching experience through research of current issues, individualized projects, and self-evaluation. Co-requisites: Admission to the Professional Semester, EDUC 414 and {EDUC 465 or TEP 420}.

EDUC 420 Professional Issues in Education (2)

Considers educational issues in the following areas: classroom management, PDE regulations and school law, professional ethics, school administration, curriculum regulations, special needs learners, health-related issues, professional negotiations, and other current issues/trends in education. Prerequisite: Admission to the Professional Semester. **One** of the following co-requisites: {TEP 432, TEP 433, TEP 434, TEP 435 or TEP 439}.

EDUC 430 Instructional Design II (1)

Students apply instructional planning and assessment to specific populations and settings. Emphasis is on evidence-based practices for each phase of instruction and universal design for varied populations. Topics include instructional goals, learning outcomes, content analysis, classroom assessment strategies, instructional objectives, instructional sequences, universal design for learning, and evidence-based metacognitive strategies for early and elementary students. Prerequisite: Approval for the Professional Semester and EDUC 330. Co-requisites: EDUC 407, EDUC 420 and {TEP 432, TEP 434 or TEP 439}. Fall semester and J-term.

EDUC 465 Early Childhood Education Internship (0)

In this senior level experience, students participate in developing, teaching, assessing, and modifying curriculum for preschool children, in accordance with the PA Learning Standards for Early Childhood. Students do both independent and collaborative planning and teaching in the Lab School program at the Early Learning Center, under the supervision of College faculty. Prerequisite: Approval for the Professional Semester. Co-requisites: EDUC 414 and EDUC 415.

EDUC 491 Independent Study (1-3) Selected topics in education taken independently with a faculty member.

EDUC 497, 498 Major Honors (1-3, 1-3)

Independent scholarship supervised by one or more Department of Education faculty mentors for junior- and senior-level students who have a strong academic record for a minimum of five previous semesters of college study. GPA of 3.6 (both cumulative and in major) and Department approval required for enrollment.

ENGL 122 Introduction to Poetry (3)

Poems of various periods and genres will be studied with particular attention given to the English-American tradition. Students will learn

how reading poetry differs from reading other forms of discourse, and how to enjoy reading poetry more fully. Meets QuEST Literature requirement. Offered intermittently.

ENGL 124 Short Story (3) An introduction to the genre of the short story. Examination of the elements (e.g., plot, characterization, narrative point of view, metaphor, symbol) of classic to contemporary stories, paying particular attention to the changes in the ways writers perceive the world. Meets QuEST Literature requirement. Offered intermittently.

ENGL 126 From Script to Screen (3)

Introduction to strategies for interpreting major plays written in English with primary focus on Shakespeare. Evaluates changes and adaptations as plays are transformed into film, with a goal of helping students become critical viewers of the screen. Meets QuEST Literature requirement. Offered intermittently.

ENGL 142 Selected Works of British Literature (3)

A consideration of the British literary tradition from Anglo-Saxon times to the 20th century, with a sampling of some characteristic writers and works from various periods. Meets QuEST Literature requirement. Offered intermittently.

ENGL 144 Nineteenth-Century British Women Writers (3)

Introduction to several genres of literature written by outstanding British women writers of the 19th century. Through its focus on early writings in the women's movement, the course will provide a context for developments in 20th-century women's discourse. Meets QuEST Literature requirement. Offered intermittently.

ENGL 146 Writing of the Inklings (3)

A study of literature composed by the Inklings, the British writing group that numbered among its members C. S. Lewis and J. R. R. Tolkien, as well as its peers and inspirers. Meets QuEST Literature requirement. Spring term.

ENGL 148 Introduction to Shakespeare (3)

Introductory study of selected plays and poems by Shakespeare. Meets QuEST Literature requirement. Spring term.

ENGL 152 Selected Works of American Literature (3)

Great works of American fiction, nonfiction, poetry, and drama will be read and discussed. Selections represent the colonial through the contemporary periods, but will vary from semester to semester and from instructor to instructor. Meets QuEST Literature requirement. Offered intermittently.

ENGL 154 Introduction to Ethnic Literatures of the United States (3)

Introduction to literature that explores the cultural diversity of the United States. Readings may be selected from the variety of ethnic literatures in the United States. At the discretion of the instructor individual courses may focus on a single ethnic literature such as African American or Chinese American literature, or may focus on comparing the literatures of various ethnic groups. Meets QuEST Literature requirement.

ENGL 160 Introduction to World Literature (3)

Study of selected works other than British or American. Readings may be selected from African, Indian, Pacific Rim, Caribbean, and other literatures in translation. Meets QuEST Literature requirement. Fall semester and Spring term.

ENGL 162 Of Gods and Humans: Literature of the Ancient World (3) A study of some of the most important literary works of the Ancient World (Middle East, Greece, and Rome) with consideration given to the present relevance of the works as well as to their classical greatness. Meets QuEST Literature requirement. Offered intermittently.

ENGL 164 Studies in the Bible as Literature (3) Study of selections from the Bible with particular reference to literary types. Meets QuEST Literature requirement. Offered intermittently.

ENGL 172 Literature and the Life of Faith (3) Reading and discussion of fiction, poetry, and essays, primarily in the Judeo-Christian tradition, which engage issues of faith and life. Meets QuEST Literature requirement. Offered intermittently.

ENGL 174 Literature and the Environment (3) Introduction to authors and works from the body of literature dealing with nature, creation, and the environment. Meets QuEST Literature requirement. Offered intermittently.

ENGL 176 Twentieth-Century Women's Literature (3) Modern works by women writers will be considered with an emphasis on how gender impacts literature. Meets QuEST Literature requirement. Offered intermittently.

ENGL 201 Introduction to English Studies I (3) Focusing on the development of interpretive acuity in both written and oral discourse, this course offers an introduction to the history of literature and criticism in English and also provides insight into the English Major and its relevance to life beyond college. Fall semesters.

ENGL 202 Introduction to English Studies II (3) Continues to focus on the development of interpretive acuity in both written and oral discourse, but it includes and emphasizes methods

of research for literary study and writing. Students will develop and complete a major research project as a requirement for this course. Spring term.

ENGL 203 Introduction to Creative Writing (3) An introduction to the principles and practice of imaginative writing in three genres: poetry, short story, and drama or creative non-fiction. Fall semester and Spring term.

ENGL 230 Linguistics (3) An introduction to language and linguistics with an emphasis on tools and methods for language study. Spring term.

ENGL 305 Writing (3) Each ENGL 305 course will be a writing course with a specific focus, such as Advanced Writing, Magazine Writing, Poetry Workshop, Playwriting Workshop, Fiction Workshop, Writing for Business, etc. Magazine writing cross listed with COMM 305, and Newswriting cross-listed with COMM 112. Prerequisite: ENGL 203 for ENGL 305D, E, F, H, I, J, K, L and M.

ENGL 310 British Literature Before 1800 (3) Courses offered under this heading might include a survey of early British literature, genre studies such as medieval drama or Renaissance epic, literary movements such as Augustan satire, or specific author courses such as Chaucer, Shakespeare, or Milton. Spring term.

ENGL 320 British Literature After 1800 (3) Courses offered under this heading might include a survey of later British literature, genre studies such as Victorian poetry or postmodern British fiction, literary movements such as the Romantic poets, or specific author courses such as Jane Austen, George Eliot, or James Joyce. Fall semesters.

ENGL 330 American Literature Before 1900 (3) Courses offered under this heading might include a survey of early American literature, genre studies such as the early American novel or early American nature writing, literary movements such as the Transcendentalists, or specific author courses such as Melville, Dickinson, Whitman. Offered intermittently.

ENGL 340 American Literature After 1900 (3) Courses offered under this heading might include a survey of later American literature, genre studies such as modern tragedy or postmodern language poetry, literary movements such as the Harlem Renaissance, or specific author courses such as William Faulkner, Toni Morrison, or Wendell Berry. Spring term.

ENGL 350 Postcolonial/World Literature (3) Courses offered under this heading might include a survey of non-western literature written in English (especially African, Indian, Pacific Rim, and/or Caribbean literatures), focus on one national or regional literature, genre studies such as the postcolonial novel or Creole poetry, or specific author courses such as Chinua Achebe, Salman Rushdie, or Derek Walcott.

ENGL 360 Genre (3) Courses offered under this heading examine a specific kind of literature such as short story, novel, lyric, epic, tragedy, or the essay. Courses may cover a wide range of time and place—for example, a course on tragedy might start with Sophocles and proceed with Shakespeare, Hardy, O'Neill and Beckett. Young Adult Literature will be offered under this course number. Fall semesters.

ENGL 370 Critical Theory (3) Courses offered under this heading might include a survey of the chronological and topical development of literary criticism, focus on a particular mode or movement such as reader-response theory or the Frankfurt School, or specific theorists such as Mikhail Bakhtin, Julia Kristeva, or Hans-Georg Gadamer. Fall semesters.

ENGL 391 English-Journalism Practicum (1-3) Work experience under professional supervision in areas such as public relations, journalism, and publishing. Open to junior and senior English/journalism majors who have completed at least four English/journalism courses. (Pass/Fail grade only.)

ENGL 392 Student Publications Practicum (1-3) The editor-in-chief of official student publications may receive three elective credits per semester for significant contributions to the publications on a regular basis. The section editors of the official student publications may receive one elective credit per semester for significant contributions to the publications on a regular basis. May be repeated for a total of six credits. Students must complete both ENGL 112 Newswriting and ENGL 305 Writing: Magazine Writing prior to or concurrently with their service as editors in order to receive academic credit. (Pass/Fail grade only.) Consent of faculty advisor for the publication is required for enrollment.

ENGL 393 Staff Writer Practicum (1)

Staff Writers who have distinguished themselves in style and profession (determined by faculty in English and Communications) may receive one elective credit per semester for significant written contributions to *The Swinging Bridge* on a regular basis: this entails submitting at least one dedicated story per issue and attending (helping with) training sessions and staff meetings. Prerequisite: sophomore status or above is required. (Pass/Fail grade only.)

ENGL 407 Secondary English Curriculum and Instruction (3)

A seminar emphasizing disciplinary content issues that are specific to English teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology applications; and professional development. Concurrent enrollment with EDUC 420, TEP 435, and PSYC/HDFS 311. Prerequisite: admission to the Professional Semester.

ENGL 491 Independent Study (1-6)

Independent study or research (normally no more than three credits per term) under the supervision of an instructor whose approval must precede enrollment (minimum GPA of 3.0 required).

ENGL 494 Literature Seminar (3)

Study and practice in bibliographical and critical methods. Consideration of Christian responses to the discipline. Preparation and presentation of major project. Fall semesters.

ENGL 496 Writing Seminar (3)

Exploration of the relationship of the Christian faith to the writer. Preparation of a major project for possible publication. Prerequisite: Two previous Messiah College writing courses. Spring term.

ENGL 497, 498 Major Honors (3, 3)

Independent research program for junior- and senior-level students who have a strong academic record for a minimum of five previous semesters of college study. Overall G.P.A. of 3.5; G.P.A. of 3.7 in the major; and departmental approval required for enrollment.

ENGR 101 Engineering Graphics (2)

Emphasis on graphics as a means for communicating ideas. Hand drawing and sketching, Computer-Aided Drawing (CAD) and solid modeling. Design projects. Course fee \$50. J-terms.

ENGR 102 Introduction to Engineering (2)

Introduction to the engineering professions and the engineering design process. Variety of topics include history of engineering, academic success skills, appropriate technology, and ethics. Industry speakers are scheduled. Creative design projects and problem solving are stressed. Course fee \$50. Fall semesters.

ENGR 201 Project Management (1)

Introduction to teamwork, project planning, and project management. Students work in teams to plan and carry out a semester-long project. Instruction in the use of shop tools and methods. Prerequisite: ENGR 102. Course fee \$50. Spring terms.

ENGR 231 Engineering Statics (3)

Vector mechanics of force and moment systems in two and three dimensions, free body diagrams and the static equilibrium of structures, centroids, moments of inertia, frictional systems. Prerequisite: PHYS 211.

ENGR 232 Engineering Dynamics (3)

Kinematics and kinetics of particles and particle systems. Work-energy and impulse-momentum applications to particles. Rotation and translation of rigid bodies. Analysis of rigid-body motions and forces using Newton's Second Law and energy methods. Prerequisite: ENGR 231. Fall semesters.

ENGR 233 Mechanics of Materials (3)

Introduction to relationships between stress and strain at a point. Elementary analysis of stress distributions and deformations of prismatic members subjected to axial loading. Examination of torsional loading of uniform cylindrical members and bending of uniform section beams. Study of application of combined loading and an introduction to statically indeterminate problems. Prerequisites: MATH 211 and ENGR 231.

ENGR 236 Circuits I (4) This course introduces basic concepts of both Analog and Digital circuits. Primary attention is given to DC Analog circuits, including op amp circuits and to combinational digital logic circuits. Both the transient response of RC circuits and sequential logic are introduced. Laboratory sessions parallel and supplement classroom topics and provide methods for students to design and troubleshoot basic circuits. Prerequisite: a grade of C- or better in MATH 111. Course fee \$50.

ENGR 237 Circuits II (3)

This course builds on the introductory concepts for both Analog and Digital circuits presented in ENGR 236. Analog circuit analysis topics expand on circuit simplification techniques, investigate the natural and step responses of RL, RC and RLC circuits, and AC sinusoidal steady state circuit analysis using phasors. Advanced combinational digital logic minimization techniques are presented including automated methods. Sequential logic topics include design of counters and finite state machines. Laboratory sessions held on alternate weeks. Design project. Prerequisite: ENGR 236. Course fee \$50. Spring term.

ENGR 242 Experimental Methods (3)

Introduction to the design, characterization, modeling, and analysis of experiments. Basic statistics theory for engineering applications, including probability, confidence intervals, and hypothesis testing. Quantitative uncertainty analysis, covering single and multi-variable systems with incorporation of systematic and random uncertainties for linear and nonlinear equations. Statistics and uncertainty combine in a final unit on design and execution of experiments, with data analysis techniques including regression, numerical approximation, correlation, and sensitivity analysis. Technical writing, computer usage, and presentation of data are emphasized. Prerequisite: PHYS 211.

ENGR 254 Materials Engineering (4)

Study of material structure, properties, and processing. Methods of controlling material properties are emphasized, along with material selection for engineering design and the manufacture of products. Ceramic, polymer and composite materials are surveyed, with in-depth study of metals and alloys. Field trips may be required. Prerequisite: CHEM 105. Course fee \$50.

ENGR 288 Project I (1)

Students engage the knowledge content of their academic discipline in the context of a specific technology problem or need and in collaboration with a client organization or community. Prerequisite: ENGR 201. Course fee \$235. Fall semesters.

ENGR 290 Engineering Economics (2)

Theory of economic decision making based on comparison of worth of alternative choice of action relative to cost involved. Includes time value mechanisms and depreciation methods. Prerequisite: Junior status. J-term and Spring term.

ENGR 301 Seminar I (1)

Introduction to philosophical and cultural perspectives about technology. Exploration of North American and other cultural perspectives as they relate to Christian faith and engineering practice. Study and conversation about the concept of vocation. Prerequisite: Admission to the major or faculty sponsorship. Fall semesters.

ENGR 302 Seminar II (1)

Continuation of ENGR 301 Seminar I. Exploration of service, leadership, stewardship, and discipleship as they relate to Christian faith and vocation. A capstone paper is required. Prerequisite: ENGR 301. Spring term.

ENGR 310 Principles of Biomedical Engineering (3)

Introduction to fundamental engineering principles underlying human physiology and their use in medical technologies. Theory of biotransport, biomechanics, bioimaging, and biomaterials. Design calculations for drug delivery, bone and tissue load-bearing, functional MRI, and diffusion in tissue-engineered constructs. Prerequisites: CHEM 105, BIOL 160, ENGR 233. Fall semesters.

ENGR 321 Environmental Engineering (4)

Introduction to water supply and wastewater treatment, solid waste management, stormwater management, air pollution, risk assessment, hazardous waste remediation, and related topics. Estimation of water and wastewater flow rates, design of water distribution systems, design of wastewater collection systems, and pumping systems. Water chemistry, disinfection, and chemical, physical, and biological assessment of water quality by laboratory analysis. Prerequisites: CHEM 105. Course fee \$50. Fall semesters.

ENGR 322 Water Resources Engineering (3)

This course will provide an overview of water in the environment and introduce the practice of engineering hydrology and its application in water resources. Topics include: the hydrologic cycle, climatology, precipitation, infiltration, groundwater flow, transpiration, measurement of meteorological parameters, watershed analysis, stream-flow measurement, hydrograph analysis, storm runoff estimation and management, and soil and water conservation. Prerequisites: ENGR 321 and ENGR 372. Spring term.

ENGR 340 Analog Electronics (3)

Exploration of the theory of operation of discrete semiconductor devices and the design of circuits using these devices, including diodes, BJT and FET transistors, and integrated circuits. Laboratory sessions are held on alternate weeks. Design project. Prerequisite: ENGR 237. Course fee \$50. Fall semesters.

ENGR 341 Microwaves (3)

Introduction to microwave theory and techniques: electromagnetic waves, transmission lines, waveguides, microwave circuits, ferrite media, plasma properties, oscillators, amplifiers, other special devices and measurements. Modern applications of miniaturized semiconductor devices, stripline methods for low power circuits and s-parameter characterization. Prerequisites: ENGR 340 and 367. Offered intermittently.

ENGR 342 Embedded Systems Design (4)

Theory and application of embedded microcontroller design with emphasis on practical applications. Students will learn microcontroller architecture including standard internal functionality such as A/D converters and Serial Interfaces. Students will learn microcontroller programming using both assembly and C. Laboratories involve the design, construction, and programming of microcontroller-based projects. Prerequisite: ENGR 237 or CIS 384. Course fee \$50. Fall semesters.

ENGR 343 Power Systems Engineering (3)

Study of power system components, load flow, and voltage control. System fault studies are related to system protection. Prerequisite: ENGR 236. Offered intermittently.

ENGR 351 Analysis and Dynamics of Structures (4)

The course includes an introduction to structural systems and basic analysis methods for beams, frames, and trusses. Topics covered include the analysis of statically determinate and indeterminate structures, deflection calculations, influence lines, and an introduction to the stiffness method and a software package for structural analysis. Furthermore, students are introduced to the dynamic response of structures, particularly with application to earthquake analysis. Pre- or concurrent registration: ENGR 233 and {MATH 270 or MATH 261}. Course fee \$50. Fall semesters.

ENGR 352 Design of Concrete Structures (3)

This course provides students with an understanding of the structural design process, the mechanics of reinforced concrete, and the ability to design and proportion structural concrete members including slabs, beams, and columns for strength, serviceability, and economy. Design procedures are based on the Building Code Requirements for Structural Concrete published by the American Concrete Institute. The mechanics underlying the code design equations are explained as well as their application to practical design problems. Prerequisite: ENGR 351. Spring term.

ENGR 355 Soil Mechanics and Foundation Design (3)

A study of the engineering principles relating to soil properties and foundation design. Includes soil structures, index properties, soil classification, permeability, compressibility and consolidation, soil testing, soil stresses, slope stability, retaining walls, and bearing capacity of shallow foundations. Prerequisite: ENGR 233. Course fee \$50. Fall semesters.

ENGR 357 Transportation Engineering (3)

Introduction to highway and transportation engineering, planning, traffic, and geometric design of transportation facilities. Theory and application of motorist-vehicle-road-pedestrian interaction, roadway capacity, traffic flow/queue theory, and traffic signal timing. Design calculations for horizontal and vertical alignment of roadways, design vehicle, design speed, super-elevation and sight distance. Course fee \$50. Spring term.

ENGR 358 Construction Methods and Materials (3)

Introduction to the basic concepts of construction engineering management including project documents, processes, and organizational structures; construction estimating, equipment, labor, and procurement; and building methods and materials. Particular emphasis will be placed on construction materials, including concrete material characteristics, and surveying techniques. Prerequisite: Junior status. Spring term.

ENGR 364 Electrical Devices (4)

Extension of topics begun in ENGR 340 with emphasis on integrated circuit (IC) semiconductor devices. Topics include operational amplifiers, discrete amplifier and oscillator designs with feedback and stability considerations, active filters including classical and IC implementation, quasi-linear circuits including rectifiers, limiters, comparators, and the Schmitt Trigger. Design project. Prerequisite: ENGR 340. Course fee \$50. Spring term.

ENGR 365 Linear Systems (3)

Introduction to analysis and design of linear shift-invariant discrete-time systems for digital signal processing (DSP) and other applications. Linear difference equations, block diagrams, impulse-response sequences, state-variables and MATLAB computer code are illustrated as tools for modeling single input-output systems. Frequency response and stability are examined. Fourier and z-transform methods are introduced. Exercises in digital filter design are included. Prerequisite: MATH 270 or MATH 308. Spring term.

ENGR 366 Control Systems (4)

Introduction to the fundamental theory of control. Discussion of transient and steady-state behavior of open loop and feedback control systems, stability analysis, and control design using frequency response methods. Application of computer simulation to control systems design. Prerequisite: MATH 270 or MATH 308. Course fee \$50. Fall semesters and Spring terms.

ENGR 367 Electromagnetics (3)

Exploration of electromagnetic phenomena for contemporary engineering applications. Emphasis on Maxwell's equations, transmission lines, and wireless technology. Selected topics such as electrostatics, fiber optics, bioelectro magnetics and effects in high-speed digital systems addressed as student interest and time permits. Vector calculus and alternative coordinate systems used. Effects of material properties addressed. Special project allows hands-on experience and investigation of current literature. Prerequisites: MATH 270 or MATH 308. Course fee \$50. Fall semesters.

ENGR 369 Communications Systems (3)

Study of analog and digital electronic communications systems and techniques. Topics include signals, noise, bandwidth, modulation, coding, transmitter versus receiver circuiting, wired versus wireless links, high-frequency devices, and specialized systems as student interest and time permits. Laboratory exercises include use of modulators, spectrum analyzer, and time domain reflectometer (TDR). Prerequisite: ENGR 364. Also recommended: ENGR 365 and 367. Fall semesters.

ENGR 371 Thermodynamics (3)

Introduction to the science and engineering uses of energy. Thermodynamic properties and data, the first and second laws of thermodynamics, entropy and availability concepts, and control volume analyses are considered. Thermodynamic systems and cycles for power generation, refrigeration, and heat pumping are also examined. Prerequisites: MATH 211 and PHYS 212. Fall semesters and Spring terms.

ENGR 372 Fluid Mechanics (4)

Study of static and dynamic effects in Fluid Kinematics using Lagrangian and Eulerian analysis. Continuity, momentum, and energy equations in integral and differential form for incompressible flows. Introduction to boundary layer theory and transient fluid motion. Comparison of Theory to experimental and computational

fluid dynamic results. Prerequisites: MATH 211. Course fee \$50. Fall semesters and Spring terms.

ENGR 373 Instrumentation and Measurement (3)

Treatment of experimental data obtained using mechanical and electrical instruments. Determination of statistical relevance of measurements. Experiments designed to reinforce measurement principles and techniques. Student presentations and demonstrations. Laboratory sessions on alternating week basis. Prerequisite: ENGR 236. Pre or concurrent registration: ENGR 242. Course fee \$50. Fall semesters.

ENGR 374 Heat Transfer Analysis and Design (4)

Fundamentals of conduction, convection, and radiation heat transfer theory applied to engineering problems. Steady and transient conduction, forced and free convection, multi-mode heat transfer, heat exchanger design, and methods for enhancement are considered. Laboratory and design projects build on theory. Computer modeling. Prerequisites: ENGR 371, ENGR 372, MATH 270 or MATH 308. Course fee \$50. Fall semesters and Spring terms.

ENGR 375 Bioinstrumentation and Measurement (3)

How electrical and mechanical instruments are used to collect data from biological and physiological systems. Theory of device operation given. Experiments designed to reinforce measurement principles and techniques. Data analyzed to determine statistical relevance. Topics include: biomedical sensors, determination of biomechanical properties of tissues, and biological and medical imaging techniques. Prerequisite: ENGR 236. Cross-listed with ENGR 373. Alternate Spring terms, 2018, 2020.

ENGR 380 Kinematics and Dynamics of Machines (3)

Analysis and synthesis of moving machine elements. In-depth study of velocity and acceleration characteristics of linkages, cams, and gear trains. Dynamic effects caused by Coriolis and spinning bodies will be explored. Computer simulation software is used. Student projects are required. Prerequisites: MATH 308 and ENGR 232. Offered intermittently.

ENGR 381 Mechanical Design (3)

Investigation of fundamental mechanical design concepts and methods. Application of engineering mechanics, materials, and manufacturing concepts in analysis are used to design mechanical elements and systems. Topics include combined stress, contact stress, stress concentration, fatigue, deflection, and theories of failure. Computer modeling. Design projects. Prerequisite: ENGR 233. Fall semesters and Spring terms.

ENGR 382 Vibrations (3) Single and multiple degree of freedom systems are studied using computer and physical models. Both free and forced vibration with and without damping are treated. Design of a system to provide a proposed response is required. Prerequisites: MATH 308 and ENGR 232. Offered intermittently.

ENGR 384 Manufacturing Processes (3)

Study of manufacturing methods required for production: tooling techniques, fabrication techniques, machinability of materials, robotics, etc. Field trips to local industrial facilities arranged. Students will participate in a group project involving the design and construction of an automated manufacturing line. Laboratory sessions held on alternate weeks. Prerequisites: ENGR 254, ENGR 233, and Senior status. Course fee \$50. Fall semesters and Spring terms.

ENGR 385 Machine Design (3)

Comprehensive study of the design and analysis of commonly used mechanical components. Topics extend those studied in ENGR 233 and 381. Prerequisite: ENGR 381. Offered intermittently.

ENGR 388 Project II (1 or 2)

Students engage the knowledge content of their academic discipline in the context of a specific technology problem or need and in collaboration with a client organization or community. Students document and present the team's work to an external audience. Optional leadership and project management opportunities available by invitation. Prerequisite: ENGR 201. Course fee \$235. Spring term.

ENGR 389 Engineering Practicum (1-3)

Faculty supervised engineering experience. Students work on interdisciplinary teams toward completion of engineering projects sponsored by the Collaboratory for Strategic Partnerships and Applied Research. Team members from any major may register for a single credit hour. Upper division engineering majors with leadership roles may register for up to 3 credit hours. (Pass/Fail grade only.) Prerequisite: approval of the project advisor.

ENGR 410 Design of Medical Devices (3)

Combine knowledge of engineering mechanics, materials, circuits, and physiology to design medical or biological devices. Investigation of fundamental design concepts and methods. Overview of FDA regulations and patents. Topics include: biocompatibility, physiologic stress conditions, and device quality. Prerequisite: ENGR 310. Alternate Spring terms, 2017, 2019.

ENGR 440 Water and Wastewater Management (3)

This course is a study of the physical, chemical, and biological unit processes for the treatment of municipal drinking water and wastewater. It covers the design and operation of integrated treatment systems to remove pollutants from water. Prerequisite: CHEM 106 and ENGR 321. Alternate Spring terms.

ENGR 442 Hazardous Waste and Air Pollution Management (3)

This course focuses on hazardous waste treatment and air pollution control. Design of processes to handle, treat, and safely dispose hazardous waste (organics, metals, acids/bases) will be studied. In addition, the course will cover principles and design practices of controlling both particulate and gaseous contaminants to meet air quality regulations. Prerequisites: CHEM 106 and ENGR 321. Alternate Spring terms.

ENGR 452 Design of Steel Structures (3)

Design of steel structures intended to develop a fundamental ability to evaluate and design steel tension members, beams, columns, beam-columns, composite beams, and connections. Discussion of design requirements focuses on failure mechanisms and behavior, evaluation of existing components, and the process to develop economical steel member designs. Discussions are based on the current American Institute of Steel Construction design specifications. Applications primarily deal with the design of structural steel buildings; bridge applications are given introductory treatment. Commercial design processes, including the use of relevant software, introduced in a computer laboratory setting. Prerequisites: ENGR 351 and ENGR 352. Course fee \$50. Fall semesters.

ENGR 488 Project III (2 or 3)

Capstone project and continuation of work begun in ENGR 288 Project I and/or ENGR 388 Project II. Students provide technical leadership on a Project Team. Prerequisite: ENGR 288 or ENGR 388. Course fee \$235. Fall semesters.

ENGR 489 Project IV (2 or 3)

Capstone project and continuation of work begun in earlier Project courses. Students document and present the team's work at the School of Mathematics, Engineering, and Business Scholarship Day. Mentor and transfer technical leadership responsibilities to incoming senior engineering majors. Prerequisites: ENGR 288 or 388. Course fee \$235. Spring term.

ENGR 495 Topics in Engineering (3) Study of selected topics in engineering. Content dependent on student and faculty interest. Prerequisite: Junior or Senior status. Offered intermittently.

ENGR 496 Independent Study (1-3)

Independent study in engineering under the direction of an instructor. Requires Departmental approval.

ESS 201 Earth and Space Science (3)

This course provides a broad introduction to the six content areas of basic scientific principles of Earth and Space Science: tectonics and internal Earth processes, Earth materials and surface processes, history of the Earth and its life forms, Earth's atmosphere and hydrosphere, and astronomy. Conceptual learning of processes, "how we know," are emphasized. The basic principles of biology, chemistry, physics, and mathematics as they relate to the interactions among the lithosphere, hydrosphere, atmosphere, and biosphere are emphasized in the course. Two lectures and three hours of laboratory each week. Meets QuEST Laboratory Science requirement. Course fee \$65.

F**FINA 305 Financial Management (3)**

An overview of the significant functions and roles performed by the corporate financial manager. Students will gain a working knowledge of managerial finance by learning to: develop a systematic approach to financial analysis; apply techniques for planning, managing, evaluating and recommending improvements in the organization's financial performance. Major topics include financial asset valuation, risk and return, and capital budgeting. Prerequisites: {ACCT 242 or ACCT 131}, ECON 220, {MATH 107 or MATH 108 or MATH 111}. Course fee \$75.

FINA 307 Money and Financial Markets (3)

The role of finance in the economy and the nature of money and other financial assets. Emphasizes the role of principal financial markets and their relationship to the economy through study of fund flows, monetary theory, and policy. Prerequisites: ECON 120 and ECON 220, {MATH 107, MATH 108, or MATH 111} and {STAT 269 or STAT 281}. Cross-listed with ECON 307.

FINA 351 Investments (3)

Deals with a thorough analysis of the theory and application of investments in relation to business cycles, institutional behavior and risk and return opportunities in the economic context. The course is presented from the investor's viewpoint and incorporates applied and empirical methodologies while covering investment strategies and policies. Major content areas include an introduction to the investment environment, modern portfolio theory, capital markets

and instruments, security analysis, portfolio management, and derivatives. Prerequisites: STAT 281 and FINA 305.

FINA 360 Topics in Finance (3)

Study of selected special topics in finance. Content dependent on faculty and student interest. Prerequisites dependent on course topic.

FINA 405 Corporate Finance (3)

An advanced course in corporate finance. The core material will include working capital management, financial planning and forecasting, risk analysis in capital budgeting, capital structure theories, raising capital, and risk management. In addition, at least one current issue will be analyzed (e.g., corporate social responsibility). Prerequisites: STAT 281, FINA 305.

FINA 410 Security Analysis and Evaluation (3)

An in-depth study of modern security valuation techniques of equity and debt instruments both from a fundamental and technical perspective. Fundamental analysis will include the ability to create Excel spreadsheets to model and forecast key financial datapoints (free cash flow, net income, EPS, EBITDA, book value) and apply appropriate market multiples to formulate security value. Course will also encompass Technical analysis related to the ability to decipher basic chart patterns, key areas of support/resistance and secondary indicators. Current equity research reports authored by leading Wall Street analysts will be used to supplement the course material. Prerequisite: FINA 351. Fall semesters.

FINA 415 Financial Institution Management (3)

A rigorous examination of financial institutions (banks, credit unions, shadow banking system) and their vital role in supporting a fully functioning economy by maintaining ready access to funding, meeting creditor obligations and serving as credit intermediaries. Provides a comprehensive review of current risk management techniques as well as the regulatory regime in which financial institutions operate (e.g., stress testing, resolution planning, minimum capital requirements, liquidity standards). Prerequisites: FINA 301, ECON/FINA 307. Spring semesters.

FINA 450 Series 7 Brokerage Preparation (3)

This course is taught specifically for students who intend to pursue a career in the financial services industry and will likely need to understand the content of and/or pass the General Securities Representative Exam (Series 7). Financial planners/consultants, advisors, stock brokers, insurance agents, trust officers and investment bankers are among those who are required to pass the Financial Industry Regulatory Authority (FINRA) Series 7 exam. Areas of focus include analysis of the securities markets, customer investment suitability, option strategies, investment products and proper account opening procedures. Prerequisites: ECON/FINA 307, FINA 351. Spring semesters.

FINA 475 Advanced Corporate Finance (3)

An intense study focused on training students to think critically and objectively in their evaluation of key financial issues facing modern corporations. Emphasis throughout the course will be placed on financial modeling and forecasting techniques using Microsoft Excel to develop integrated projections of financial statements and discounted cash flow (DCF) valuation models. Students will be exposed to both theory and practice underlying complex financial topics including mergers & acquisitions, capital structure optimization, derivative valuation, leveraged buyouts (LBOs), share

repurchase economics and enterprise risk management. Prerequisite: FINA 401. Spring semesters.

FREN 101, 102 Fundamentals of French I, II (3, 3)

Intensive study of the fundamentals of French grammar within a communicative approach to language learning. Introduction to French culture. Meets QuEST Language requirement.

FREN 201 Intermediate French (3)

Continuation of grammar principles with practical application in conversation. Introduction to composition through selected cultural and literary readings. Prerequisite: FREN 102 or the equivalent. Meets QuEST Language requirement.

FREN 206 French Culture and Language (3)

Study of the culture, geography, and history of France and the French-speaking world. Prerequisite: FREN 201 or equivalent.

FREN 301 Contemporary French Culture (3)

Topics include the French concepts of family, home, friendships, etc. Prerequisite: FREN 206.

FREN 320 Selected Topics in French (3)

Intensive study of a selected author, genre, literary movement, French-speaking country, or current events derived from periodicals and/or the internet. Prerequisite: FREN 206.

FREN 322, 324 Advanced Composition and Conversation I, II (3, 3) Conversation and composition on a variety of contemporary topics. Prerequisite: FREN 206.

FREN 491 Independent Study (1-3)

Advanced language study or research. (Maximum of six credits).

G

GEOG 103 Regional Geography of the World (3)

A study of the world's major realms and regions. Major emphasis is placed upon mastering an understanding of the geographical characteristics distinctive to each of the earth's various realms and regions. Location geography, cultural geography, political geography, economic geography and physical geography are highlighted. This course introduces students to both the "Pennsylvania Academic Standards for Geography" and "Geography for Life: National Geography Standards." Spring term only.

GEOL 152 Geology (3)

Consideration of fundamental and historical aspects of geology. Two lectures and three hours of laboratory per week. Meets QuEST Laboratory Science requirement.

GEST 041 Foundational Study Skills (2)

Development and application of basic skills to promote effective study. Includes time management, motivation, goal setting, reading skills, note taking, learning theory, and preparation for examination-taking. Required of all conditionally admitted students.

GEST 043 Supplemental Study Skills (1)

Development and application of basic skills to promote effective study. Includes time management, motivation, goal setting, reading skills, note taking, learning theory, and preparation for examination-taking. Open to all students.

GEST 101 Career Planning and Decision-Making (1)

Exploratory course designed for students who are uncertain about their major and/or career goals. Emphasizes applying decision-making skills to career information gathered throughout the course. (Pass/Fail only.)

GEST 140 Adaptation to American Education (1)

Focus on adjustment to American culture and educational processes with special attention to language needs and skills necessary for academic success. (Pass/Fail grade only.)

GEST 210 Racial Healing (1)

This course focuses on racial justice and uses an experiential methodology to assist students to better understand the problems of racism and specific strategies used to bring about the healing of racism. Admission by Instructor's consent. (Pass/Fail grade only.)

GERM 101, 102 Fundamentals of German I, II (3, 3)

Intensive study of the fundamentals of German grammar within a communicative approach to language learning. Introduction to German culture. Meets QuEST Language requirement.

GERM 201 Intermediate German (3)

Review and refinement of German language skills. Discussion of various themes in German culture such as the family, leisure activities, divided and unified Germany, and music. Prerequisite: GERM 102 or equivalent. Meets QuEST Language requirement.

GERM 206 Contemporary German Culture (3)

Advanced conversational and reading skills centered on current issues in Germany, such as the environment and alternative energy sources, transportation, and the changing demographics of German society. Prerequisite: GERM 201 or equivalent.

GERM 211 Unified Germany (3)

The self-perception and expression of the German people since political unification. Topics may include German and European identity, foreigners in Germany, youth, religious faith, and East German nostalgia. Prerequisite: GERM 206.

GERM 301 Readings in German Literature I (3)

Selected literary works from Das Nibelungenlied to Goethe. Prerequisite: GERM 206 or the equivalent. Meets QuEST Literature requirement.

GERM 302 Readings in German Literature II (3)

Selected literary works from the 19th and 20th centuries. Meets QuEST Literature requirement. Prerequisite: GERM 206 or the equivalent.

GERM 491 Independent Study (1-3)

Advanced study or research in German.

GERO 218 Death, Grief and Caring (3)

Study of current attitudes toward death, dying, and grief. Approached from the perspective of how to deal with one's own and others' mortality and how caregivers can give support to the bereaved or terminally ill person. Cross-listed with HDFS 218.

GERO 231 Psychology of Aging (3)

Study focuses on the psychological stability and change experienced by older persons. Topics include sensation and perception, intellectual functioning and learning, psychomotor skills, personality,

and psychopathology as related to older persons. Students develop a relationship with an Elder Mentor for the duration of the class. Cross-listed with PSYC 231.

GERO 232 Sociology of Aging (3)

Comprehensive introduction to the field of social gerontology. Special emphasis is given to the aged in the context of how older adults both affect and are affected by our society. Includes study of demography, cultural values, diversity of aging experiences, friendship and family relationships, work and retirement, living arrangements, political activity and social programs. Students engage in Elder Service Partner Program for the duration of the class. Service-learning designated course. Cross-listed with SOAN 232.

GERO 251 Biology, Nutrition, and Healthy Aging (3)

Course devoted to the areas of nutrition, health, and biology of the aging. Emphasizes maximizing the physiological condition of older persons.

GERO 391 Aging Practicum (1-3)

Field experience for persons pursuing possible careers in the field of gerontology. Students work under professional supervision for a minimum of 40 hours per credit. Ten additional hours of reading and other integrative activities per credit required. Prerequisites: Instructor's consent, Department Chair, and Career and Professional Development Center.

GIS 245 Introduction to Geographic Information Systems (3)

A Geographical Information System (GIS) is a cross-disciplinary computer-based data processing program designed to manage and analyze spatial information. ArcView GIS is a PC-based software package used for visualizing, exploring, querying, editing, and analyzing data linked to geographic locations. The emphasis of this course is on software training and use of technology in order to provide students with a core base and general skills on which they can build further expertise in GIS. Two lectures and three hours of lab per week. Students from all majors are welcome. Prerequisites: Familiarity with MS Windows, spreadsheets and databases. Spring term. Course fee \$65.

GREK 205 Fundamentals of Greek I (3)

Elements of Greek are introduced, studied, and applied with a goal of mastering the rudiments of the language and acquiring a carefully selected vocabulary. Readings from the New Testament. Meets QuEST Language requirement.

GREK 206 Fundamentals of Greek II (3)

Elements of Greek are introduced, studied, and applied with a goal of mastering the rudiments of the language and acquiring a carefully selected vocabulary. Readings from the New Testament. Meets QuEST Language requirement. Prerequisite: GREK 205.

GREK 305 Intermediate Greek (3)

Syntax, vocabulary, efficiency in translation, and exact meanings of words are stressed. Selected New Testament passages are read. Prerequisites: GREK 205, 206. Meets QuEST Language requirement.

H

HDFS 099 Opportunities in Human Development and Family Science (1) Introduction to the discipline of human development and family science, the faculty in this discipline, career possibilities following graduation, the academic advising process, the discipline's

curriculum and its relationship to the QuEST curriculum, and the type of library research and writing style expected. (Pass/Fail grade only.)

HDFS 101 Foundations of Marriage and Family (3)

An overview of the distinct perspective and content areas of the field of family science. The course will focus on the discovery and application of knowledge about the family, with special emphasis on multicultural diversity and Christian integration. Meets QuEST Social Sciences requirement.

HDFS 142 Introduction to Interpersonal Relations (3)

Study of intrapersonal and interpersonal needs, goals, and behaviors in an effort to enhance interpersonal competence. Emphasis on teaching skills necessary to function more effectively in interpersonal situations and helping contexts.

HDFS 205 Principles of Peer Relationships (0-1)

This course, designed for Resident Assistants and Apartment Life Coordinators, will consider numerous essential components for effective peer relationships and helping skills based upon the premise that competent students know themselves, know others, and know Messiah College.

HDFS 209 Life Span Development (3)

A developmental approach to the study of persons from conception to death. Attention is given to the physical, emotional, social, and cognitive development of the individual as well as to theoretical and methodological issues relevant to understanding different age groups. Applications are made to the contexts relevant to various stages of development. Recommended prerequisite: EDUC/PSYC 203, HDFS 101, SOAN 201, or PSYC 101. Cross-listed with PSYC 209. Not for HDFS majors.

HDFS 210 Child Development (3)

A developmental approach to the study of the individual from the prenatal period through late childhood. Attention given to the physical, emotional, social, and cognitive development of the child as well as theoretical and methodological issues related to child development. Applications made to the family, peers, church, and culture. Prerequisite: IDFY 101 or IDFY 102. Cross-listed with PSYC 210.

HDFS 218 Death, Grief, and Caring (3)

Study of current attitudes toward death, dying, and grief. Approached from the perspective of how to deal with one's own and others' mortality and how caregivers can give support to the bereaved or terminally ill person. Cross-listed with GERO 218.

HDFS 244 Human Sexuality (3)

Examination of sexual development, human reproduction, sexual functioning, gender, ethics, and attitudes. Investigation of sexual dysfunction and socio-psychological issues related to sexual expression.

HDFS 245 Family Resource Management (3)

An examination of management basics such as decision making, time and energy management, work simplification, and critical thinking as they apply to the functioning of family systems through the life span. The student will acquire a thorough understanding of the acquisition, distribution, and utilization of resources as these relate to unique individual/family needs and wants. Prerequisite: HDFS 101.

HDFS 253 Community Services for Individuals and Families (3)

An overview of family policies and how the community responds to the needs of individuals and families. Major social agencies which serve individuals and families will be surveyed. Prerequisite: HDFS 101.

HDFS 272 Introduction to Social Research (3)

Introduction to human inquiry including the development of hypotheses and the role of theory in hypothesis development. A survey of research design, sampling, data collection and analysis. Prerequisite: An introductory course in the behavioral sciences. Prerequisite: {STAT 269 OR PSYC 271} AND one of the following: HDFS 101, SOAN 101, SOWK 120, PSYC 101, or CRIJ 101. Cross-listed with PSYC 272. Course fee \$10.

HDFS 307 Family and Consumer Sciences Curriculum and Instruction I (2)

Provides an examination of the spectrum of theories, techniques, methods, and approaches to the teaching of family and consumer sciences, with particular attention to the Pennsylvania Department of Education's Academic Standards and Guidelines for FCS. Students will be expected to develop instructional materials that could be used in classroom. Should be taken concurrent with EDUC 318. Prerequisite: HDFS 101 and admission into the Teacher Education Program.

HDFS 311 Adolescent Development (3)

A developmental approach to the study of the adolescent. Attention given to the physical, emotional, social, and cognitive development of the adolescent as well as theoretical and methodological issues. Applications made to the family, peers, schools, church, and culture. Prerequisite: EDUC/PSYC 203, HDFS 101, PSYC 101, or HDFS/PSYC 272. Cross-listed with PSYC 311.

HDFS 312 Adult Development (3)

A developmental approach to the study of the early and middle adult years. Attention given to the interaction of psychological, social, and physiological aspects as well as theoretical and methodological issues related to adult development. Prerequisite: EDUC/PSYC 203, HDFS 101, PSYC 101, or HDFS/PSYC 272. Cross-listed with PSYC 312.

HDFS 320 Play and Development (3)

Play and leisure are important activities in facilitating healthy human development. The purpose of this class is to explore the social, emotional, psychological, cognitive, and physical benefits of play and leisure over the lifespan. Emphasis will be given to the theoretical understanding of play and leisure, as well as the therapeutic uses of play. Careers that rely heavily on the use of play will be explored (e.g., play therapist, child life specialist, early intervention specialist, therapeutic support staff, activities director at retirement communities, etc.) Prerequisite: One of {HDFS 101, PSYC 101, or HDFS 210/PSYC 210}.

HDFS 339 Dynamics of Family Interaction (3)

Study of interpersonal processes in the family and other intimate groups. Examination and application of family theory and family interaction patterns. Prerequisite: sophomore standing and HDFS 101 or PSYC 101.

HDFS 340 Ethics and Families (3)

An introduction to the applied field of family ethics, this course attempts to find rational solutions to specific moral problems embedded in the context of marital and/or familial relationships and

explores implications for the larger social context. Students will study the application of ethical theories to the problems and questions specific to this area of human activity and will be introduced to the use of specific steps in the process of moral decision making. Prerequisite: IDCR 151. Meets QuEST Ethics requirement.

HDFS 342 Women and Men in American Society (3)

Introduction to key topics related to gender such as identity formation, work, family, sexuality, violence, class stratification, and religious orientation. Racial and cultural issues will be treated as they affect understanding of gender. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement. Cross-listed with PSYC/SOAN 342.

HDFS 345 Parenting (3)

Overview of the parenting process in diverse cultural and familial structures. Examines mothering and fathering as well as the effects of parenthood on other family relationships. Identifies different parenting styles, theories, and psycho-educational programs and how these vary throughout the family life cycle. Prerequisite: {HDFS 101 or PSYC 101}, and {HDFS 210/PSYC 210 or HDFS 209/PSYC 209}.

HDFS 355 Marital Relationships (3)

Examination of dating, mate selection, and marriage, including factors associated with marital satisfaction, stability, and dissolution. Prerequisite: Sophomore standing and HDFS 101 or PSYC 101.

HDFS 361 Introduction to Child Life (2)

This course will offer a basic introduction to the field of child life; the role of the child life specialist in healthcare; theory, history, and scope of professional practices; and an overview of the Child Life Council and the certification process. The fundamental skills of a child life specialist (assessment, medical play, and psychological preparation, provision of coping strategies, sibling work, disease education and end of life support) will be discussed. Must be taken concurrently with HDFS 362, as students will be required to work with hospitalized children. Prerequisite: HDFS 210/PSYC 210.

HDFS 362 Child Life Field Experience (1)

This course offers students practical experience working with hospitalized children and exposes them to the role of the Child Life Specialist in a healthcare setting. This field experience runs concurrent with course work for HDFS 361. Students spend time weekly working with hospitalized children for a total of at least forty hours over the course of the semester. Must be taken concurrently with HDFS 361 Child Life (2 credits); must have TB test within last year and have proof of Child Abuse Clearances.

HDFS 382 Topics in Human Development and Family Science (1-3) Selected topics in family science not currently included in course offerings. Possible topics may include families under stress, play, the history of the family, the family in later life, family violence, work and families, the family and media, women in relationships, family therapy, and family diversity. May be repeated for additional credit as the topic/study changes. Prerequisite: Three credits of HDFS courses.

HDFS 383 Topics in Multicultural Family Studies (3)

Selected topics in multicultural families. Possible topics may include but are not limited to the study of African-American families, Asian-American families, and Latino families. May be repeated for additional credit as the topic/study changes. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

HDFS 384 Families in America (3)

A sociocultural study of family/household variations in the Americas; special emphasis on cultural and ethnic diversity and the adaptability of family/household forms to changing environmental contexts; historical and cross-cultural perspectives. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement and cross-listed with SOAN 384.

HDFS 386 Family Ethnicity and Human Services (3)

This course provides an introduction to the cultural variations found in family structures, life cycle transitions, relational strengths and values as experienced within African American, American Indian, Asian American, and Latino families. Special attention will be given to the understanding of racism, ethnocentrism, and acculturation, as well as the role that cultural sensitivity may play in the assessment and delivery of human services. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

HDFS 391 Family Service Practicum (1-3)

Field experience for junior and senior human development and family science majors wishing to clarify vocational goals and gain hands-on experience. Students work under professional supervision for a minimum of 40 hours per credit. Ten additional hours of reading and other integrative activities per credit required. Prerequisites: Instructor's consent, Department Chair, and Career and Professional Development Center.

HDFS 396 Infants, Toddlers, and Families (3)

This course examines the role of the family and other caregivers in the development of infants and toddlers (ages 0-3). Early intervention and assessment techniques will be explored along with developmentally appropriate practices. Students will become familiar with the Individualized Family Service Plan (IFSP), and other resources and services that may be available to infants and toddlers and their families. Prerequisite: {HDFS 209/PSYC 209 or HDFS 210/PSYC 210}. Cross-listed with EDSP 396.

HDFS 407 Family and Consumer Sciences Curriculum and Instruction II (1)

A seminar emphasizing disciplinary content issues that are specific to Family and Consumer Sciences teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology application; and professional development. Should be taken concurrent with EDUC 420, TEP 435, and HDFS/PSYC 311. Prerequisite: Admission to the Professional Semester and HDFS 307.

HDFS 411 Marriage and Family Therapy (3)

This course is designed to introduce students to the evolution, perspectives, professional issues, and basic models of family therapy, with particular attention to foundational theoretical approaches dealing with systems theory. Students will learn basic concepts and interventions employed for dealing with relational patterns found between couples and families. Prerequisites: PSYC 101 or HDFS 101 and HDFS 339 or PSYC 323.

HDFS 442 Strategies of Family Life Education (3)

Investigation of contemporary models and methods for strengthening interpersonal and family relationships. Emphasizes family life education and family enrichment. Prerequisites: HDFS 339, HDFS 345, and HDFS 355.

HDFS 491 Independent Study (1–3) Junior and senior students with at least a 3.0 GPA in their major may select a problem for independent investigation in a special area of family science. Prerequisites: Instructor and Department Chair approval.

HDFS 494 Human Development and Family Science Seminar (3) This course will encourage students to examine contemporary family problems in light of their Christian faith. As part of this process students will learn different skills in biblical interpretation as they analyze existing issues which affect family relationships. Consideration will also be given to how issues of faith may affect the practice and delivery of social services. Prerequisite: Senior status.

HDFS 497, 498 Major Honors (3, 3) Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

HEAS 490 Senior Thesis (3)

The mission of Ethnic & Area Studies is to graduate students with a multidisciplinary understanding of culture and in-depth knowledge of at least one culture or a cultural/racial/ethnic tradition who can apply this knowledge in church and society to become effective agents of social justice and reconciliation. This capstone course will include independent research on a topic chosen by the student in consultation with the faculty supervisor, and will thoroughly engage a primary area of interest in at least one culture. This course is designed specifically for senior Ethnic and Area Studies majors.

HEBR 205 Fundamentals of Hebrew I (3)

Introduction to the basic grammar and vocabulary of biblical Hebrew. Emphasizes understanding word formation and building vocabulary as a foundation for developing reading proficiency. Various passages from the Hebrew Bible are read. Meets QuEST Language requirement.

HEBR 206 Fundamentals of Hebrew II (3)

Introduction to the basic grammar and vocabulary of biblical Hebrew. Emphasizes understanding word formation and building vocabulary as a foundation for developing reading proficiency. Various passages from the Hebrew Bible are read. Meets QuEST Language requirement. Prerequisite: HEBR 205.

HEBR 305 Intermediate Hebrew (3)

Readings from the Hebrew Bible are selected to develop facility in reading and translating the Hebrew text. Prerequisite: HEBR 205, 206. Meets QuEST Language requirement.

HIST 099 Introduction to History (1)

This course is an introduction to the study of history. The course will explore the ways historians think about the past and practice their craft, the relationship between Christian faith and the study of history, careers in history, and how to begin thinking about putting a history degree to use in the marketplace. This course is required of all first-year history majors.

HIST 101 Western Civilization Before 1500 (3)

A survey of Western Civilization from pre-history to 1500. Major themes include the fundamental nature of human civilization, the Judeo-Christian tradition and its place among the civilizations of human history, and the nature of various cultural worldviews that emerged in classical and medieval Western civilization. Meets QuEST European History requirement.

HIST 102 Western Civilization Since 1500 (3)

A survey of the social, economic, political, religious, and cultural developments in Western Civilization from 1500 to the present. Major themes include the emergence of a modern Western worldview, how with this worldview European nations came to dominate the other world civilizations, and how the traumas of the 20th Century caused a profound questioning of this modern world model. Meets QuEST European History requirement.

HIST 131 The Emergence of Modernity in the Western Imagination (3)

This course explores the accelerating pace of change that accompanied the emergence of modernity in Western Civilizations. It focuses on those areas of human thought and imagination that have crafted the ideas and values that distinguish the modern West from other times and other locations. Emphasis will be placed on how ideas and intellectuals have both shaped and evaluated social, economic, and political changes since the onset of the early modern era. Meets QuEST European History requirement.

HIST 132 European Missionaries in Africa (3)

This course focuses on one of the most significant developments of European history—the interaction of European peoples with the rest of the world after Columbus “discovered” the Americas in 1492. In particular, it examines the European missionary movement in Africa. This movement led to one of the most important legacies of Western interaction with Africa—African Christianity. Meets QuEST European History requirement. J-term.

HIST 134 Knights, Peasants, and Bandits: A Social History of Medieval England (3)

An exploration of the ways ordinary (and some not-so-ordinary) people coped with both daily life as well as major historical events that occurred in England from the Norman Conquest to the Tudor dynasty. Special emphasis is placed on life within the communities of family, village, court, church, and city. Meets QuEST European History requirement. J-term.

HIST 141 U.S. History Survey to 1865 (3)

A survey stressing political, economic, diplomatic, and social themes. Begins with discussion of pre-Columbian America and ends with the Civil War. Meets QuEST United States History requirement.

HIST 142 U.S. History Survey Since 1865 (3)

A survey stressing political, economic, diplomatic, and social themes. Begins with Reconstruction and continues through the present day. Meets QuEST United States History requirement.

HIST 151 The Wild, Wild West: Battles Over the American West and the Western Image (3)

A study of the history and mythology of the American West. Special attention given to the symbols often associated with the West—such as freedom, opportunity, individualism—and how these have influenced America as a whole. Meets QuEST United States History requirement.

HIST 171 World Civilizations: Bronze Age to 1500 (3)

A comparative survey of the social, cultural, political, religious, and economic developments in civilizations outside the western tradition from pre-history to 1500. Major themes include the fundamental nature of human civilization, the classical traditions of civilizations which emerged in Asia, Africa, the Near East, and the pre-Columbian Americas, and the growing interactions between these civilizations in classical and medieval world history. Meets QuEST Non-Western Studies requirement.

HIST 172 World Civilizations: 1500 to Present (3)

A comparative survey of the social, cultural, political, religious, and economic developments in civilizations outside the western tradition from 1500 to the present. Major themes include the effects of Western imperialism on these civilizations, their responses to modernization, globalization, and westernization, and the post-colonial transformations of civilizations during the 20th Century. Meets QuEST Non-Western Studies requirement.

HIST 258 Historical Methods (3)

An introduction to the “doing” of history including techniques, procedures, and skills of the working historian. The course will concentrate on research methodology, analytical and synthetic thinking skills, and the ability to organize and report research findings in both written and oral form. This course is designed specifically for sophomore History Majors and Minors and humanities-history concentration majors. Fall semesters.

HIST 301 Ancient Greece (3) A survey of the ancient Greek world from prehistory to the period of the Roman Empire. The course focuses on Greek political ideals, socio-economic conditions, religious traditions, daily life, and the cultural contributions of ancient Greece, including historical writing, democratic systems, philosophy, drama, art, and architecture.

HIST 302 Ancient Rome (3) A study of the Roman world examining the growth of Rome from a small city-state to the dominant power of the Mediterranean. The course focuses on political ideals, culture, socio-economic conditions, daily life, religion, and the rise of Christianity within the Roman Empire.

HIST 303 Late Antiquity: AD 250-700 (3)

A study of the transformation of the Roman world from the third to seventh centuries AD, examining the end of the ancient world and the birth of new medieval societies in Europe and the Mediterranean. The course gives attention to such topics as the Christianization of the Roman Empire, shifting boundaries of empire and political structures, changes in society and economy, transformation of town and countryside, Germanic migrations, the rise of the papacy, and the emergence of Islam.

HIST 304 Tudor-Stuart England: 1400–1700 (3)

An introduction to the history of England from the Later Middle Ages through the Tudor/Stuart era. Major themes include social, economic, and religious change and the ways in which those changes influenced politics and culture from the Wars of the Roses through the Elizabethan Age and the English Civil War.

HIST 305 Archaeology and Historical Interpretation (3)

An introduction to the methods of archaeology as they relate to and produce historical analysis, interpretation, and conclusions.

HIST 310 Medieval Europe: AD 700-1500 (3)

A survey of the cultural, social, economic, religious, and political developments in Europe from the eighth to fifteenth centuries AD. Major themes include the emergence of medieval social institutions and modes of thought, Christian monasticism and spirituality, and the cultural interactions of the Latin West, the Byzantine East, and the Islamic world.

HIST 312 The Trial of Joan of Arc (3)

This course provides a deep study of the extraordinary person, career, and trial of Joan of Arc. Her heresy trial in particular provides an

important window into contemporary attitudes towards not only politics and authority but also religion and gender. Because the course is a reading seminar students will also be afforded ample opportunities to explore the methods of scholarly historical inquiry, with emphasis on the methods by which historical knowledge is produced, and then to assess the strengths and limitations of such attempts to reconstruct and comprehend peoples and cultures from the deep past, both historically as well as historiographically. Alternate Fall semesters: 2018, 2020.

HIST 314 The Crusading Movement (3)

A study of the history and historiography of the crusading movement from its eleventh-century origins to contemporary memory. Major themes: a comparison of the ideals and realities of the Crusading Movement, a comparison of Western Christian, Byzantine Christian, Jewish, and Muslim perspectives on the Crusades, a study of the first four eastern crusades in particular and a general survey of the later crusades, and an analysis of modern & contemporary reconstructions of the Crusades and their implications for interfaith and intercultural relations in a post 9/11 world. Student seminar research papers published as a volume for the Resource Room library. Alternate Spring terms, 2017, 2019.

HIST 319 Topics in Classical and Medieval European History (3)

Selected topics related to a specific area of Classical and Medieval European history such as Greek and Roman history, Late Antiquity, the Medieval world, and Mediterranean archaeology.

HIST 320 Renaissance and Reformation Europe (3)

A survey of the cultural, political, socio-economic, intellectual, and religious developments in Early Modern Europe. Major themes include Renaissance Humanism (Italian and Northern), religious reformations, and religious wars. Special attention will be given to the relationship between social change and shifts in European intellectual life and spirituality. Meets QuEST European History requirement.

HIST 321 The Age of Monarchy: 17th- and 18th-Century Europe (3)

A study of European society, politics, and culture in the “early modern” period, from the age of Religious Wars through the American War of Independence and the French Revolution. Topics include the rise of modern nation-states, absolute monarchs, constitutional governments, the spread of printing, the Enlightenment and its critics, changing patterns and practices of daily life, traditional religion in an emerging scientific culture, and Europe’s colonial settlements.

HIST 322 Modern Europe: 1789–1918 (3)

A study of European society, politics, and culture from the Age of Napoleon through the First World War. Topics include the development of modern Western ideologies such as nationalism, romanticism, liberalism, capitalism, socialism, and imperialism; political revolutions and reforms; industrialization, urbanization, and the new commodity culture; changing class, family, and gender relations; the cult of progress; and the status of religion in an age of doubt.

HIST 323 Europe in the 20th Century (3)

A study of European society, politics, and culture from the Russian Revolution to the present day. Topics include the World Wars and the Holocaust; the disintegration of Europe’s overseas empires; women’s, students’, and labor movements; changing family structures and social reforms; communism, the Cold War, and the collapse of

the Soviet Union; European unification and the spread of democracy; ongoing ethnic and religious conflicts; and visions for the new millennium.

HIST 324 European Imperialism and Its Legacies: 1500 to Present

(3) This course focuses on one of the most crucial facets of modern European history—the interaction of European peoples with the rest of the world after Columbus “discovered” the Americas in 1492. This course examines European imperialism in the Americas after 1492 as well as the “New Imperialism” of the late 19th century, which occurred in a very different historical context. It considers the two-way significance of European imperialism—its impact on the Americas, Africa, and Asia, and on Europe itself.

HIST 332 Modern Germany (3)

A survey of the emergence of the modern state of Germany from the aftermath of the Thirty Years War (1618–1648) to the reunification of this nation in 1991. Major themes include the forces of nationalism, liberalism, and imperialism; the Nazi era and the subsequent rehabilitation of Germany within the Cold War and post-Cold War context.

HIST 341 Colonial America (3)

A study of the political, social, and religious history of the North American colonies from 1620 to 1763. Emphases include the transformation of European and African settlers into a distinctly American people, and the often stormy relationships between Native Americans and European immigrants.

HIST 342 America in the Age of the Revolution (3)

An examination of the development of the United States between 1790 and 1848. Emphasis is given to the political, social, economic, and cultural factors which shaped American life during the Jeffersonian and Jacksonian eras.

HIST 344 Civil War America (3)

An examination of the causes, nature, and consequences of the American Civil War. Covers the period from 1848–1877 and discusses such topics as the nature of slavery, the rise of abolitionism, the collapse and reconstruction of the American political system, and the realities of war. Meets QuEST United States History requirement.

HIST 345 Pennsylvania History (3)

This class provides students with the opportunity to gain an introductory understanding of the social, political, and economic developments that have characterized Pennsylvania from its colonial roots through the de-industrialization of the 1970s and 1980s and the individuals who helped shape these events. Meets QuEST Pluralism requirement.

HIST 346 From Omaha to Hiroshima: U.S. History, 1890–1945 (3)

A study of the U.S. from the Populist movement through the end of World War II. Focus is on the transformation of a rural, agrarian society into an urban industrial world power.

HIST 347 Modern America: U.S. History, 1945–Present (3)

A study of the U.S. from the end of World War II to the present. Special attention given to the social and cultural influences of the Cold War, changes in the political economy, and protest movements in the late 20th Century.

HIST 351 Native American History (3)

A survey of Native American history from before European contact to the present day. Addresses social, cultural, economic, political, and military themes. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

HIST 352 African-American History Since 1865 (3)

A study of historical change in the lives, experiences, legal status, and social status of African-Americans from the abolition of slavery to the present. Special attention is given to African-American campaigns to secure political and social equality. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

HIST 353 Immigrant America (3)

A history of immigration and immigrant groups in the United States from 1830 to the present. Covers major waves of immigration and focuses on the diverse cultural heritage, social structure, and political activism of immigrants from Europe, the Americas, and Asia. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

HIST 355 U.S. Urban History (3)

An examination of the process by which America moved from a society characterized by small farms and villages to one dominated by large cities and sprawling suburbs. Themes include the effects of technology and planning on city-building and the effects of the urban form on race, ethnic, and gender relations. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

HIST 371 Premodern Civilizations of Asia (3)

A broad introduction to the historical transformations of government and society in Asia from the earliest times to the 16th Century. The twin themes of order and encounters will form the thematic foundations for analyzing the different ways in which Asian societies in China, Japan, and India grew in complexity as they crafted elaborate institutional arrangements for governance, and also as they became interconnected within wider circuits of exchange of ideas, commodities, and populations. The course will end at the moment of early modern encounters with Europeans.

HIST 372 Modern Civilizations of Asia (3)

A broad introduction to the historical transformations of government and society in Asia from the 16th Century onward. Focusing on China, Japan, India, and southeast Asia, a number of inter-related themes will be explored: the cultures of these regions, the different ways in which they were brought under the influence of western powers, the subsequent transformations and adaptations these societies underwent, and the sometimes painful emergence of new nation states in Asia. Topics such as capitalism, cross-cultural encounter, resistance, governance, gender, social inequality, institutional change, nationalism, and revolution will form the critical focus of this course. Meets QuEST Non-Western Studies requirement.

HIST 373 History of India before 1500 (3)

An exploration of Indus Valley cultures, the Vedic age, Hindu, Buddhist, and Jaina world views, early kingdoms and empires, medieval state formations, Islamic culture and Sultanate regimes. Major themes include questions of culture, exchange, state making, governance, and world views, which reveal the multilayered and complex character of the subcontinent’s history—one that goes beyond simple labels of “Hindu” and “Muslim.”

HIST 374 History of Modern India and Pakistan (3)

An examination of the broad contours of south Asian history after 1500 considering the histories of those parts of the sub-continent covered by India, Pakistan (and by extension, Bangladesh), and Gorkha (present-day Nepal). Major themes include: the Mughal Empire, European colonial interventions and indigenous responses (reform, rebellion, and nationalism), and the painful emergence of south Asian nations and their postcolonial predicaments. These themes will also intersect with the following concerns: Mughal state making, colonial governance and its forms of knowledge, subaltern histories, gender and caste studies, communalism, and discourses on development.

HIST 375 Gandhi's India: 1869–1948 (3)

An examination of the dominant themes of Indian history that unfolded during the lifetime of one of its greatest leaders, mahatma Gandhi. Major themes include: the life, teachings and political practices of the mahatma, his allies and detractors, the growth of Indian nationalism with all its internal tensions, the colonial state and its forms of knowledge, subaltern social movements, gender relations, elite and popular cultural expressions, communalism, the Partition (1947) and formation of Pakistan, the postcolonial Indian state, environmental histories, Indian diasporas, and the subcontinent's development regimes.

HIST 379 History of the Middle East (3)

This course introduces students to the history of the Middle East. It provides an opportunity to move beyond the headlines that appear in the news media almost every day. The course surveys Arab history in the Middle East and North Africa focusing particularly on the rise of Islam, subsequent Islamic kingdoms and empires, and the interaction of the Islamic world with the West. Particular attention will also be paid to understanding the religion of Islam as well as the Israeli-Palestinian conflict. Meets QuEST Non-Western Studies requirement.

HIST 381 History of Africa (3)

This course introduces students to the richness and diversity of African history from earliest times to the present. From ancient Egypt to the post-colonial states; from medieval Islamic and Christian kingdoms to the modern missionary movement; from the Atlantic slave trade to the effects of European colonialism; from the involvement of medieval Swahili city-states in the world economy to the international debt crisis of African countries today; from the nationalist movements that won independence from European rule to the struggles of black South Africans against the apartheid regime, this course examines key themes and topics in the history of the enormous continent we call Africa. Meets QuEST Non-Western Studies requirement.

HIST 383 South Africa: Struggle for Freedom (3)

This course examines one of the most amazing freedom movements of the 20th century. In 1994, black South Africans finally achieved majority rule after more than 100 years of struggle against white minority rule. This course will explore the peoples and societies of South Africa, and the ways in which they responded to the increasing pressures and expansion of white rule. Particular attention will be paid to the movements which fought against the most racist system the world has seen: the Afrikaner apartheid regime established in 1948. The role of Christianity and the church and the role of the international community, particularly the U.S., in the anti-apartheid struggle will also be examined. Meets QuEST Non-Western Studies requirement.

HIST 390 Teaching History and Social Studies (3)

A seminar emphasizing disciplinary content issues that are specific to secondary school history and social studies teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies, assessment techniques, adaptations for exceptional learners; instructional technology applications; historical thinking, and professional development. This course is required for History-Social Studies majors, but is also open to other students as an upper-division history elective.

HIST 391 Historical Study of Peace (3)

This course centers on how people throughout history and across the world have responded to situations of conflict and oppression. Grounded in complicated historical reality, this course examines various social and political contexts in which humans have faced violence and injustice and the ways in which individuals and communities responded hopefully and positively if not always successfully. Particular attention will be paid to the role of religion in general and Christianity in particular in shaping people's ideas and actions in situations of conflict and oppression.

HIST 392 Women and Gender in History (3)

This course puts women and gender at the center of historical inquiry using a comparative perspective. Thus, the construction of masculinity and femininity and the relations between men and women will be examined across the globe from earliest times to the present. In the Americas, Europe, Asia, Africa, and the Middle East, the significance of women and gender will be explored in such central institutions as the state, family, religion, and economy. Particular attention will be paid to the ways that women have negotiated their position throughout history, including the modern feminist movement that we know today. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

HIST 393 Public History (3)

A study of how history is presented in the public sphere—including museums, commemorations, documentaries, community histories, and public memory. Addresses a variety of activities and careers for historians outside of academia. May include or be taken in conjunction with an internship.

HIST 394 Digital History (3)

What does it mean to practice history in the digital age? In this course, we explore how technology is changing the way we think about, research, and present the past. Our emphasis will be on the practice of digital history through specific exercises in GIS, data collection and manipulation, internet archiving, database creation, website development, social media, image and video editing, and digitization. Through a range of applications, tools, and collaborative exercises, we will see how digital tools readily intersect with the practice of history and how these applications are changing the way we understand our discipline.

HIST 399 Topics in History (3)

Selected topics related to a specific area of historical inquiry including American history, European history, non-Western history, and historiography.

HIST 401 Historiography and Philosophy of History (3)

A study of the meaning and interpretation of history, with special attention to movements of historical thought and the historians who influenced those movements. This capstone seminar course is designed specifically for senior History Majors. Fall semesters.

HIST 407 Issues in the History and Social Studies Classroom (1)

A one-credit course required for History-Social Studies majors to be taken during their professional semester. The focus is on disciplinary content issues that arise during student teaching.

HIST 491 Independent Study (1-3)

Independent study or research under the supervision of an instructor whose approval must precede the student's enrollment.

HIST 495 Internship in Historical Research (6-9)

Assignment under professional guidance in an archives or historical collection.

HIST 497, 498 Major Honors (6)

Independent research program for students who have strong academic records for a minimum of five previous semesters of collegiate study. Overall GPA of 3.5 and Department of History faculty approval required for enrollment.

HONR 497: Senior Honors Seminar (3)

An interdisciplinary capstone seminar for students in the College Honors Program. The thematic focus of each seminar will be defined by the professor and will include intensive reading, discussion, and a written research paper. Open to College Honors students.

HONR 498, 499 Senior Honors Project (1-5)

A two-semester project that can take a variety of forms, including an interdisciplinary thesis, creative arts project, or service learning project. All projects must fulfill the parameters for the Senior Honors Project. Open to College Honors students.

HPED 189 Emergency Water Safety (1)**HPED 192 Water Safety Instructor (2)**

HPED 193 Lifeguarding/First Aid/CPR (2) An American Red Cross Lifeguard Training certificate (valid for three years) will be awarded to students based on correctly answering at least 80% of the written test questions on the CPR and Lifeguarding test, correctly demonstrating all course critical skills, and possessing current certification in CPR for the Professional Rescuer.

HPED 195 First Aid and CPR (1)**HPED 201 Foundations of Physical Education (1)**

Overview of the physical education profession; brief history; philosophical, scientific, and sociological foundations and principles; a brief introduction to career opportunities plus overall education objectives of health and physical education programs. Fall semesters.

HPED 224 Community and Personal Health (3)

Major global, community, and personal health issues will be explored. Emphasis will be on personal and community responsibility to address topics such as stress, sexual behavior, drug use, weight control, and other relevant health concerns.

HPED 229 Motor Learning (3)

An introductory investigation of principles affecting performance and retention of motor skills. Topics include learning stages, information processing, feedback, transfer, practice conditions, memory, arousal, task analysis, data analysis, fundamental experimental and statistical concepts. Alternate J-terms: 2019, 2021.

HPED 233 Sports Officiating (2)

Understanding of basic philosophy of officiating, including methods, rules interpretation, and technique. Students develop basic officiating skills through participation and rating, and are introduced to officiating rating examinations.

HPED 236 Medical Aspects of Sport (2)

Basic injury prevention and care course for those majors involved in coaching, fitness programs, and physical activity supervision. Involves the application of basic injury care, conditioning of athletes, basic taping techniques, legal and ethical issues, and nutritional concepts. Lab sessions and practical experience are provided.

HPED 305 Contemporary Issues in Health (3)

An in-depth study of selective, contemporary health issues. An emphasis on exploring Healthy People 2020 Objectives is included.

HPED 309 Curriculum and Instruction in Elementary Physical Education (3)

Theories, principles, and practices related to curriculum development and instruction in elementary physical education. Practical experience is included. Prerequisite: Admission to Teacher Education Program.

HPED 312 Curriculum and Instruction in Secondary Physical Education (3)

Theories, principles, and practices related to curriculum development and instruction in secondary physical education. Practical experience is included. Prerequisite: Admission to Teacher Education Program.

HPED 326 Curriculum and Instruction in Health Education (3)

Curriculum planning, methods, materials, and teaching techniques for teaching health to grades K-12. Prerequisite: Admission to Teacher Education Program and {Health and Physical Education major}.

HPED 329 Sport in Society (3)

Study of race, sexism, social stratification, social mobility, and religious orientations pertaining to sports. Contemporary realities, myths, and issues concerning social differentiation will be examined by utilizing a variety of disciplinary approaches, including the following theories: functionalism, conflict, critical, and feminist. Analysis of the social influences and structure that have affected and exist within, between, and among societies, nations, and cultures will also be explored as they pertain to sport. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

HPED 332 Teaching Adapted Physical Education (1)

Practical experience applying principles and practices concerning conditions and diseases (e.g., orthopedic, neurological, emotional, etc.) which influence participation in physical education and recreation. Prerequisite: Admission to Teacher Education Program. Co-requisite: EDSP 307.

HPED 333 Principles of Coaching (3)

A study of principles and practices of coaching with an emphasis on methodology, administration, and conditioning. In addition, social-psychological dimensions of coaching such as motivation, stress, group dynamics and leadership will also be included. Students will be challenged to develop a philosophy of coaching and critique competition in light of their Christian faith.

HPED 391 Health & Physical Education Practicum (1-3)

Practical experience related to health, physical education, athletic or leisure programming or health and fitness. May involve experience as an instructional aide, athletic trainer, recreational sports supervisor, or off-campus employee. Prerequisite: Department chair approval.

HPED 407 Student Teaching Seminar (1)

The seminar is designed to provide opportunities to reflect upon and evaluate teaching experiences, to research and debate special topics and to continue the process of planning for future professional endeavors. The seminar is conducted concurrently with student teaching. (Pass/Fail grade only.) Prerequisite: Admission to Teacher Education Program

HPED 422 Assessment in Health and Physical Education (2)

Guidance in appropriate selection, construction, and administration of motor skill, fitness, and knowledge assessment tools as well as interpreting and using results of data collection to improve student learning. Prerequisite: Admission to Teacher Education Program. Fall semesters.

HPED 423 Principles of Administration (3)

A study of leadership, basic skills, processes, and functions of management pertaining to physical education, fitness, and sport. The development of an extensive policies and procedures manual that includes, but is not limited to the following components: mission statement, objectives/goals, code of ethics, organizational plan, policies, facility plans, and operational budget. The case study approach is heavily utilized for the student practice decision-making skills. Spring term.

HPED 491 Independent Study in Physical Education (1-3)

Independent research with faculty supervision.

HPED 497, 498 Majors Honors (3, 3)

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and department approval required for enrollment.

HRM 301 Human Resource Management (3)

Examination of the process and problems in effectively selecting, developing, utilizing, and evaluating human resources in an organization. Spring term.

HRM 311 Organizational Behavior (3)

Principles, concepts, and processes involved in the interface among individuals, groups, and organizations. Topics such as personality, perception, leadership development, role theory, motivation, power and conflict, group behavior, and job design.

HRM 312 Leading Organizational Change (3)

The current environment in which organizations operate is characterized by unprecedented change powered by rapidly emerging technologies, information overload, globalization, higher customer expectations, and changing values, lifestyles, and attitudes. This requires effective leaders to be proactive toward change or be lost in the tide. This course examines change from an organizational perspective by exploring the change process, representative change interventions, and the role of the leader in working with organizational members to accomplish successful change initiatives. Course concepts are drawn from many disciplines and explore change at individual, group, and organizational levels. Students will have the

opportunity to analyze success, failure, and multiple dilemmas of public and private sector organizations in order to better understand the causes, implications, potential leader action, and strategies of organizational change. Cross-listed with LEAD 312.

HRM 346 Employee and Labor Relations (3)

Study of the relationship between the employee and the employer including a foundation for understanding how employee and labor relations relate to management practices and to the full scope of human resources. Examination of the historical development of labor and labor relations, current laws that work to balance the rights and interests of employees with the rights and interests of the employer, and the conflicts and concerns that develop when the balance is broken. Investigation of employee/employer communication strategies, performance management concepts, grievances, the structure of unions, collective bargaining, and dispute resolution. Through the use of case studies, emphasis is placed on developing the ability to recognize employee/employer concerns, identify the laws that apply, and develop appropriate solutions. Prerequisite: BUSA 120.

HRM 351 Working Internationally (3)

Management practices in other countries differ from those in the U.S., each having advantages and disadvantages. Investigates how a country's history, culture, religion, politics, and economy impact business practice. Work practices in the European Union in general and the Netherlands in particular, including leadership, organizational models, and ethics, will be analyzed and compared. Students will explore practical issues in international employment and interact with visiting Dutch students. Current issues will also be examined. Alternate J-terms: 2018, 2020.

HRM 356 Compensation and Benefits Management (3)

Explores the design and evaluation of compensation programs that will attract, retain, and motivate competent employees. Topics include job evaluation, pay discrimination and comparable worth, internal and external equity comparisons, and benefit plans; the study of wage and salary administration in public and private organizations; determinants of general wage and salary levels and structures; total compensation systems, incentive wage systems, supplementary benefits; legal framework and overall compensation strategy. Alternate Fall semesters: 2017, 2019.

HRM 391 Human Resources Practicum (1-3)

Practical business-related experience under professional supervision or supervised participation as a teaching assistant or in department courses. Open to juniors and seniors in the Department of Business. Others by department approval. This course does not meet major requirements.

HRM 426 Topics in Human Resource Management (3)

Seminar course with variable topics related to a specific area of human resource management. Possible topics include comparative HRM systems, work and family relationships, motivation, performance management, and self-directed teams. May be taken more than once for credit.

HUMA 100 The Hoverter Course (3)

An interdisciplinary introduction to the humanities, this course will consider the complexities of human experience through various works of arts and thought, reflected in the disciplines of philosophy, history, literature and religious studies. A course enriched by instruction in written and oral communication will introduce

students to analytical, critical and imaginative tools for thinking and writing about the world of ideas.

HUMA 220 Humanities Projects I (1-2)

Students employ one or more digital technologies or skillsets in a public humanities project over the course of an academic term.

HUMA 320 Humanities Projects II (1-3) Students employ one or more digital technologies or skillsets in a public humanities project over the course of an academic term. Students will typically develop greater sophistication in digital technology previously employed in HUMA 220, or will be given opportunity to employ new digital tools in a public humanities project. May be repeated for up to 4 credits. Prerequisite HUMA 220.

HUMA 420 Humanities Projects III (2-3)

Qualifying students will be assigned leadership responsibilities for implementing public humanities projects. Students will continue to employ one or more digital technologies or skillsets in a public humanities project over the course of an academic term. Prerequisite HUMA 220. May be repeated for up to 5 credits. Requires permission of the instructor.

HUMS 485 Seminar in Human Services (3)

This course focuses on the knowledge, principles and skills for practice in the human services. Emphasis is placed on an examination of the broad range of services and functions of the human service profession. The course will highlight the continued development and utilization of effective human services skills with emphasis on the importance of ethical, professional and culturally sensitive service delivery. Prerequisites: Completion of all major degree requirements except INTE 394. This course runs concurrently with INTE 394.

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IBI 331 Comparative Economic Systems (3)

A survey of the major economic systems, including the underlying ideological foundations and institutional arrangements. The major theoretical aspects of various types of systems are covered along with their central organizational features. Special attention is given to the changes and developments in the former Soviet Union and Eastern Europe. Review of the European Union as well as the major Asian economies of India, China, and Japan. (Letter grade only.)

IBI 339 Global Marketing (3)

The theory and practice of contemporary global marketing management. The context or environment of international marketing is covered along with the task of marketing within a variety of national or cultural markets. Major topic areas include the global marketing environment, global market research and market entry, and product planning and strategy in a global context. Several projects involve students in global marketing research and analysis. (Letter grade only.)

IBI 350 International Trade and Finance (3)

A survey of the analytical and institutional aspects of international trade and finance. The historical and contextual elements are the foundation for the examination of current theoretical and empirical approaches to international economic and financial relations. Major areas of emphasis include international finance, international trade, and globalization. (Letter grade only.)

IBI 390 Global Business Strategy (3)

This course is intended to integrate the field experiences and presentations by guest faculty in the areas of international business with current developments and literature in this field. Students will be expected to prepare analytical reports on the various firms and institutions visited in the program. Major topics included in the reading and discussion in this course are the role of the multinational firm in the world economy, international business strategy, organizational behavior, international human resource management, and financial management for the multinational firm. The discussion of values and ethical issues related to international business is also included. (Letter grade only.)

IBUS 375 International Business and World Economy (3)

Introduction to international economic relations with emphasis on both private and public sectors. Topics include theories of trade, protectionism, balance of payments and the international monetary order, economic integration, the developing world, and global corporations. Focuses on current trends, policies, and institutions. Prerequisite: ECON 120 and 220.

IBUS 360 Topics in International Business (3)

Study of selected special topics in international business. Content dependent on faculty and student interest. Prerequisites dependent on course topic.

IBUS 377 Ministry in International Business (3)

Examination of the current Business As Mission (BAM) movement with emphasis on BAM opportunities in international business. Topics include the biblical basis for BAM, contextualization of faith in the international work environment, resources and training programs for BAM preparation. Guest speakers share personal experiences.

IDCC 260 Cross-Cultural Studies (3)

A field-based examination of one or more cultures which seeks to increase the students' appreciation for and understanding of cultural traditions other than their own. Requires three weeks of on-site study, including home-stays, internships or ethnographic fieldwork, in addition to readings, lectures, and site visitations.

IDCR 151 Created and Called for Community (3)

The central question to be considered is, "What is my vocation as a faithful steward of God's creation?" Through examining literary, historical, artistic, philosophical, and theological works, students engage in the biblical themes of forgiveness, compassion, nonviolence, peacemaking, justice, and racial and gender reconciliation through the lens of the College's unique religious identity and foundational values, with a particular focus on the importance of community. Writing-enriched course; required for all students.

IDET 3xx Ethics in the Modern World (3)

An examination of various approaches to moral decision-making and an application of these approaches to selected contemporary ethical issues and problems.

IDFY 101 First Year Seminar (3)

Course fee \$30.

IDFY 102 HONORS: First Year Seminar (3)

An introduction to the intellectual life of the College for first-year students. This is done in the context of a small discussion-oriented

seminar designed around specific themes proposed and taught by individual faculty from a variety of academic disciplines. Emphasis is given to developing important academic skills such as writing, reading, and critical thinking. Course fee \$30.

IDFY 101L Writing Laboratory (1)

A course designed for students who, having completed First Year Seminar, demonstrate the need for further writing instruction. Meets two hours per week (Spring term). Students identified by the Director of Writing Across the Curriculum are required to take this course. Open to other students only with permission of the Director of Writing Across the Curriculum.

IDNW 2xx Non-Western Studies (3)

An engagement with cultures or people whose heritage and/or present life has been significantly shaped by customs, practices, and ideas outside the European tradition.

IDPL 3xx Pluralism in Contemporary Society (3)

An examination of contemporary issues and problems arising out of the racial, ethnic, class, gender, and religious diversity of contemporary society, with a special emphasis on raising the students' awareness of the effects of inequality, prejudice, and discrimination in American society.

IDST 3xx Science, Technology and the World (3)

An interdisciplinary exploration of the nature, methodology, and scope of science with special emphasis on the interrelationship between science and culture.

IDWR 099 College Writing Workshop (3)

Intensive workshop in writing, focusing on discovery, drafting, revision, and editing. Designed to be taken in conjunction with IDFY 101 First Year Seminar. Does not count toward the English major or minor.

IDWV 3xx World Views (3)

An examination of the various belief systems which have shaped and continue to shape people's lives with special emphasis on how these belief systems compare and contrast with a Christian worldview.

INTE 387 Teaching Internship (0-1)

Undergraduate teaching internship carried out during a typical academic term. The student partners with a sponsoring faculty member to assist with course delivery. Tasks include development of learning objectives, assessment practices, and student engagement strategies. Student reflection on the experience and critical response to content studied related to best practices in teaching and learning are required. Restricted to juniors and seniors, by instructor approval only.

INTE 391 Internship (1-3 credits)

This practical work experience and concurrent course provides sophomores, juniors and seniors with a means to explore career options and to enhance their skill set under the professional supervision of the Career and Professional Development Center staff. Number of credits determined by internship hours and learning objectives. This does not substitute for departmental practicum credit. Prerequisite: 2.5 G.P.A. Fulfills the Experiential Learning Requirement.

INTE 394 Internship (4-12 credits)

This discipline-related work experience and concurrent course provides for application of classroom theory and development of professional skills. Credit dependent upon length and intensity of involvement, the number of individualized learning objectives accomplished, as well as prescribed learning activities. Readings, online interaction, learning contract, web portfolio, employer evaluations, and class participation are some of the components. Number of credits determined by internship hours and learning objectives. This option is available during fall, spring, and summer sessions. (Letter grade only.) Prerequisite: 2.5 G.P.A. Fulfills the Experiential Learning Requirement.

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LANG 320 Foreign Language Teaching Methodology (3)

Provides an examination of the spectrum of theories, techniques, methods and approaches to the teaching of foreign languages, with a special emphasis on those that are proficiency based. In addition to learning how to teach second language skills, students will also learn how to effectively promote cultural understanding in the foreign language classroom. Students will be expected to develop instructional materials and show how they plan to utilize "realia" or authentic materials in their classroom teaching.

LANG 391 Foreign Language Practicum (1-3)

Collaboration with instructor in teaching a catalogued modern language course at the fundamental or intermediate level. Open to students who have acquired proficiency in the language of instruction. Prerequisite: Instructor's consent.

LANG 407 Language Curriculum and Instruction (1)

A seminar emphasizing disciplinary content issues that are specific to modern language teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology applications; and professional development. Concurrent enrollment with EDUC 420, PSYC/HDFS 311 and TEP 435. Prerequisite: admission to the Professional Semester.

LANG 493 Modern Languages Seminar (3)

Integration of theory, research, and practice for modern language students. Considers how Christian perspectives inform, critique, and further a professional orientation in modern languages, and includes a critical study of the philosophical and ethical issues related to the field.

LATN 101 Fundamentals of Latin I (3)

The essentials of Latin grammar, syntax, and vocabulary are studied to build comprehension in reading and writing elementary Latin. Students will also learn more about the structures of their own language as well as the nature of classical Latin culture and society through readings from representative ancient authors. Meets QuEST Language requirement.

LATN 102 Fundamentals of Latin II (3)

The study of more subtle grammatical forms, syntax and vocabulary building are emphasized in an effort to prepare students to translate almost any classical Latin text. The study of classical Latin culture and society continues through readings from representative ancient authors. Prerequisite: LATN 101. Meets QuEST Language requirement.

LATN 201 Intermediate Latin (3)

Review of Latin grammar and composition along with extensive cultural and literary readings from authors like Cicero, Caesar, Livy, Vergil, Ovid, Pliny, Augustine, Jerome's Vulgate Bible, and some medieval Latin texts. Prerequisites: LATN 101 and 102. Meets QuEST Languages requirement.

LEAD 310 Leadership Theory And Development (3)

This course focuses on the foundational as well as the latest theories and approaches to leadership and leader development, emphasizing scientific research and empirical support as well as case studies. Leadership skill development and integration of faith will be emphasized. The course explores the leadership process to enhance effectiveness and organizational performance across multiple levels of analysis and highlights the role of leader, follower, and situational factors that contribute to success.

LEAD 312 Leading Organizational Change (3)

The current environment in which organizations operate is characterized by unprecedented change powered by rapidly emerging technologies, information overload, globalization, higher customer expectations, and changing values, lifestyles, and attitudes. This requires effective leaders to be proactive toward change or be lost in the tide. This course examines change from an organizational perspective by exploring the change process, representative change interventions, and the role of the leader in working with organizational members to accomplish successful change initiatives. Course concepts are drawn from many disciplines and explore change at individual, group, and organizational levels. Students will have the opportunity to analyze success, failure, and multiple dilemmas of public and private sector organizations in order to better understand the causes, implications, potential leader action, and strategies of organizational change. Cross-listed with HRM 312.

LEAD 320 Issues and Challenges in Leadership (3)

This course delves into some of the most pressing leadership issues of the day. Among the topics that may be covered are what personal attributes characterize an effective leader, what obstacles exist to effective leadership, and what role faith plays in shaping one's leadership style and priorities. Drawing from the scientific research, from history, and from scriptural counsel, students will pursue a fuller understanding of how leaders can bring about change in whatever vocational context they find themselves. Students will also engage in significant self-examination to assess their leadership strengths and weaknesses.

LEAD 391 Leadership Practicum (3)

Practical experience or applied project with leadership/service component; open to juniors and seniors.

M**MATH 101 Introduction to Mathematical Sciences (3)**

This course is designed to introduce students to systematic, mathematical thinking as it applies to classical problems in the history of mathematics and as it connects to modern society. Meets QuEST Mathematical Sciences requirement.

MATH 102 The Mathematics of Growth (3)

This course is designed to present essential concepts in mathematical modeling, data analysis, and problem solving through contemporary applications which explore the effectiveness of replacing a real-world situation with a mathematical model. Course content includes

arithmetic, quadratic, geometric, and logistic growth, as well as, topics in statistics such as the graphical interpretation of data and statistical techniques for analyzing a particular model. Prerequisite: Two years of high school algebra. Meets QuEST Mathematical Sciences requirement.

MATH 103 Supplemental Calculus I (1)

This course reviews the precalculus skills necessary to succeed in a college calculus course with an emphasis on trigonometry. Co-requisite MATH 111.

MATH 107 Applied Mathematics for Management (3)

Functions and graphs, mathematics of finance, matrices, simultaneous systems, linear programming, introduction to business calculus. Meets QuEST Mathematical Sciences requirement.

MATH 108 Intuitive Calculus with Applications (3)

A one-semester survey of the basic topics of the calculus of functions of one variable, demonstrating their applications in a wide variety of fields. Recommended for students who will take only one semester of calculus. Prerequisite: Two years of high school algebra. Meets QuEST Mathematical Sciences requirement.

MATH 111 Calculus I (4)

Introduction to differential and integral calculus with associated analytic geometry. Prerequisite: Two years of high school algebra and either a score of Proficient on the Pre-Calculus Proficiency exam or concurrent enrollment in MATH 103. Note that all MATH 111 registrations have a concurrent MATH 103 registration until the proficiency exam is taken. Meets QuEST Mathematical Sciences requirement.

MATH 112 Calculus II (4)

Further topics in differential and integral calculus, including sequences and series, Taylor polynomials, polar coordinates, methods of integration, and applications of the integral. Prerequisite: a grade of C- or better in MATH 111.

MATH 180 Discrete Mathematics (3)

This course is designed to highlight discrete (non-continuous) mathematical structures, with a strong emphasis on practical algorithms, a significant computer applications component. Topics include: algorithms, financial models, recursion, recurrence relations, functions, set theory, countability, counting arguments, number representation, logic, proof techniques, mathematical induction, and graph theory. Meets QuEST Mathematical Sciences requirement.

MATH 195 First Year Mathematics Seminar (3)

An introduction to and overview of the discipline of mathematics and the mathematical community. Readings, discussion, and written work focuses on building mature mathematical reasoning skills and understanding the mathematical community, both past and present. Careers in mathematics and related fields are considered, and attention is given to the idea of Christian vocation and how faith and mathematical thought inform each other. Spring term.

MATH 210 Fundamentals of Vector Calculus (1)

This course teaches fundamental vector calculus; differentiation and integration in a multivariate context. The intended audience is students studying natural science, not for mathematics majors. Prerequisite: a grade of C- or better in MATH 112.

MATH 211 Calculus III (4)

Vectors, multivariable functions, partial derivatives, multiple integration, and theorems of Green and Stokes. Prerequisite: a grade of C- or better in MATH 112.

MATH 261 Linear Algebra (3)

Systems of linear equations, vector spaces, linear dependence, bases, dimension, linear transformations, matrices, determinants, eigenvalues, and geometric applications. Prerequisite: a grade of C- or better in MATH 112.

MATH 270 Linear and Differential Methods (3)

This course covers applied material in four areas of advanced mathematics that are foundational for scientific work: matrices, vector spaces, Fourier series, and ordinary differential equations. Topics in these areas are taught with an emphasis on building intuition and proficiency with mathematical methods for modeling scientific processes. Prerequisite: C- or better in MATH 112. Prerequisite or co-requisite: either MATH 210 or MATH 211.

MATH 301 Numerical Analysis (3)

Error analysis; numerical methods for interpolation, approximation, integration, and solution of non-linear equations and differential equations. Computer programs written and analyzed. Prerequisites: CIS 181 and MATH 211.

MATH 307 Secondary Mathematics Instruction (2)

This course is a methods course in secondary mathematics curriculum and instruction. Areas of focus include current national and international curriculum standards and best-practices in secondary mathematics teaching. The course includes a significant practical component of evaluated mock lessons delivered by students, with peer and instructor feedback. Prerequisite: Admission to the Teacher Education Program. Spring term only.

MATH 308 Differential Equations (3)

First and second order linear differential equations. Laplace transforms, systems of differential equations with applications. Prerequisite or co-requisite: MATH 211.

MATH 341 Mathematical Modeling (3)

Discrete deterministic models. Applications of graph theory, linear programming, game theory, election theory, and finite difference equations. Computer simulation. Case studies in areas of student's choice. Prerequisites: CIS 181 and MATH 211.

MATH 342 Applied Combinatorics (3)

Counting methods for arrangements and selections, generating functions, recurrence relations, inclusion-exclusion principle, elementary graph theory, trees and searching, network algorithms. Prerequisite: MATH 211.

MATH 350 Mathematics of Finance I (3)

This course is aimed to help students begin to prepare for the Financial Mathematics exam of the Society of Actuaries. While this course is not a full preparatory course, key concepts in modeling will be introduced. Topics include: compound interest, date cashflow valuations, financial modeling, and applications of these ideas. All topics are covered with Mathematical rigor, requiring significant algebraic skills. Prerequisites: MATH 112, and one of {STAT 281, STAT 291}. Fall semester 2017, then alternate Fall semesters: 2020, 2022.

MATH 362 Algebraic Structures (3)

Groups, rings, fields, homomorphisms, and quotient structures. Prerequisite: MATH 261. Fall semesters.

MATH 382 Geometry (3)

Topics in Euclidean and non-Euclidean. Prerequisite: MATH 261. Alternate Spring terms: 2017, 2019.

MATH 391 Mathematics Practicum (1-3)

Practical experience under professional supervision. Department approval required.

MATH 392 History of Mathematics (3)

Development of mathematical thought from beginning to present. Contributions from ancient Egypt, Babylonia, and Greece; from China, India, and the Arab world; as well as from medieval and modern Western civilization. Prerequisite: MATH 211. Alternate Spring terms.

MATH 405 Introduction to Mathematical Research (3)

Critical review of papers in current undergraduate mathematical journals. Introduction to and development of the techniques involved in researching and preparing a paper on a mathematical topic. May be repeated for additional credit as the topic/study changes. Prerequisites: MATH 211 and 261.

MATH 407 Professional Issues in Secondary Mathematics Education (1)

This course is a seminar course emphasizing disciplinary content issues in secondary mathematics teaching. Classroom management techniques, assessment strategies, adaptations for exceptional learners, and instructional technology will be discussed in the context of equipping students to participate in the professional community of mathematics teachers. Fall semesters.

MATH 412 Introduction to Real Analysis (3) A rigorous development of the real number system from its foundational axioms through calculus including limits, continuity, differentiation, and integration. Prerequisite: MATH 211. Spring term.

MATH 450 Mathematics of Finance II (3)

This course is aimed to help students finish preparation for the Financial Mathematics exam of the Society of Actuaries. This course builds on the foundation of Mathematics of Finance I (MATH 350) to complete training for the FM Exam. Topics include: term structure of interest rates, cashflow duration and immunization, additional topics in finance and investment, and forwards, futures, swaps, and options. All topics are covered with Mathematical rigor, requiring significant algebraic skills. Prerequisites: MATH 350. Alternate Spring terms: 2021, 2023.

MATH 490 Topics in Mathematics (3)

Advanced mathematical topics typically included in courses not currently offered. Possible offerings include complex variables, topology, advanced calculus, number theory, intermediate mathematical statistics. May be repeated for additional credit as the topic/study changes. Prerequisites: MATH 211 and 261, additional MATH courses depending on the topic.

MATH 491 Independent Study (1-3)

Reading course in which students are allowed to pursue their interests in a particular area such as history of mathematics, topology, number theory, combinatorics, logic, etc.

MATH 494 Senior Mathematics Seminar (3)

Senior capstone course emphasizing independent research, professional development, contributions of mathematics to culture, and discipline specific issues of Christian faith and vocation. Spring term.

MRKT 130 Marketing Principles (3)

This course examines core tenets of marketing, investigating the activity, institutions, and process for creating, communicating, delivering, and exchanging offerings of value for customers, clients, partners, and society. Students explore strategic and tactical means to develop, price, promote and distribute products and services to business and consumer target markets in order to create competitive advantage and facilitate mutually beneficial exchange. Through interactive, application-oriented exercises, cases, and discussion, students engage key marketing concepts and use analytical tools to conduct market planning that help solve real world challenges.

MRKT 333 Consumer Behavior (3)

This course identifies key concepts in the field of consumer behavior, drawing from psychology, sociology, anthropology, and economics. Marketing begins and ends with the consumer, thus marketing managers must understand the buying habits of their target market to be successful. Students approach the subject from both a managerial perspective and a consumer perspective in order to understand influences of marketing on their own behavior, as well as that of others. External and internal forces shaping self-concept and lifestyle that stimulate needs and desires in decision-making are identified as students apply theories to real buying situations and develop marketing strategy through hands-on experience. Prerequisite: MRKT 130.

MRKT 337 Integrated Marketing Communications (3)

This course identifies the foundational concepts of integrated marketing communication (IMC) and describes IMC's place in overall organizational structure. Special emphasis is placed on the analytical and creative aspects of IMC management including campaign strategy, campaign creation, use of traditional and non-traditional media, and legal and ethical responsibility. Students also examine the process of creative thinking for conceiving big ideas and innovating. Theory is combined with practice as students select a product, service, or organization, conduct a strategic analysis, determine target market, craft market positioning, select media and develop creative executions to build a complete integrated marketing campaign report and presentation. Prerequisite: MRKT 130.

MRKT 339 Market Research (3)

This course examines the role of research in marketing and evaluates the tools available for obtaining market information. Students identify research problems, select appropriate quantitative and qualitative designs, analyze data, and communicate results. Students also determine techniques for sampling, questionnaire construction, and data processing. Specific topics include focus groups, exploratory research, primary and secondary research, big data, and observation research. Important topics such as sample size, response rates, variables, and reporting of results are also explored. Through experiential learning of the research process, students conduct a hands-on research project and report findings. Ethical issues facing researchers are discussed along with expectations in real business environments. Prerequisites: MRKT 130 and STAT 281.

MRKT 357 Personal Selling (3)

This course synthesizes personal selling theory with practice. Students rethink the sales profession with a new understanding of the role of personal selling in marketing as well as its broader business and economic impact. They realize how everyone engages in some form of selling and examine how that selling functions in relationship building and persuasion. Students also carry out the selling process and specific sales techniques in situations that simulate real-world environments. Specific topics include qualifying leads, planning the sales contact, understanding prospects' needs, making the presentation, and closing the sale. Prerequisite: MRKT 130.

MRKT 360 Topics Course (3)

Study of selected topics in marketing. Content dependent on student and faculty interest.

MRKT 362 Social Media Marketing (3)

This course explores the evolving influence of social media in marketing, organizations, and society. Students examine how traditional marketing strategies often fail with social media empowered consumers. Through theory, practice, and case studies students identify a strategic process for integrating social media into marketing and other business operations. Specific strategies for monitoring and engaging are evaluated while students investigate how to apply channels like Facebook, Twitter, LinkedIn, Instagram, and YouTube to help meeting real business objectives. A series of assignments build upon each other toward a final social media marketing plan report and presentation for a product, service, or organization. Prerequisite MRKT 130.

MRKT 364 Digital Marketing (3)

This course defines primary strategies of digital marketing. A significant part of marketing now occurs online or is influenced by online communication. Students examine how organizations must adapt to new interactive digital strategies in order to succeed. An audit of the latest techniques, tools, and processes presents practical methods for online research, development of digital strategy, and implementation of marketing online. Topics like search engine optimization, online advertising, social media, email marketing, web development, and mobile marketing are discussed and employed through multiple projects. Special attention is paid to personal branding and online reputation management, which is applied through students creating and promoting a professional blog. Prerequisite MRKT 130.

MRKT 391 Marketing Practicum (1-3)

Practical business-related experience under professional supervision or supervised participation as a teaching assistant or in department courses. Open to juniors and seniors in the Department of Business. Others by department approval. This course does not meet major requirements.

MRKT 438 Marketing Management and Strategy (3)

This course provides students with a comprehensive capstone marketing experience. Students are challenged to gather, integrate, and expand their understanding of marketing strategies and tactics while exploring practical guidance for entering the workforce and living out one's Christian marketing vocation. Specific topics include how to network, build personal networks, and create a personal brand through competencies, character, and communication. Current marketing trends and practices are evaluated while analyzing how specific organizations are shaping them. Students interact with marketing practitioners and benefit from the support of a marketing

mentor while serving real clients through design of a complete marketing plan report and presentation. No audits. Prerequisites: MRKT 130, 333, 337, and 339.

MUAP Applied Music (Private Music Lessons) (1, 2 or 4)

Private lessons in voice, piano, organ, and orchestral instruments are available to music as well as non-music majors. Students may earn one credit in applied music by taking a half-hour lesson per week or two credits by taking either two half-hour lessons or a one-hour lesson per week. Students are expected to take 14 lessons per semester. Students enrolled in the Bachelor of Music in Performance degree will enroll for four credits of MUAP. Additional fee will be applied for all MUAP courses. Listed below are all of the instruments currently available at Messiah.

MUAP 111 Voice	MUAP 121 Piano
MUAP 122 Harp	MUAP 131 Organ
MUAP 135 Harpsichord	MUAP 141 Flute
MUAP 142 Oboe	MUAP 143 Clarinet
MUAP 144 Bassoon	MUAP 145 Saxophone
MUAP 146 Alto Recorder	MUAP 151 French Horn
MUAP 152 Trumpet	MUAP 153 Trombone
MUAP 154 Euphonium	MUAP 155 Tuba
MUAP 161 Violin	MUAP 162 Viola
MUAP 163 Cello	MUAP 164 Double Bass
MUAP 165 Guitar	MUAP 166 Bass Guitar
MUAP 167 Jazz Improvisation	MUAP 171 Percussion
MUAP 168 Praise and Worship Keyboard	
MUAP 181 Applied Composition	
MUAP 183 Conducting (Prerequisite: MUED 251)	

MUCM 336 Music Business (3)

The business side of a career as a performer and/or composer. Study of copyright laws, contracts, booking concerts, preparing a publicity packet, publicizing concerts, fundraising, and other related matters.

MUCM 351 Electronic Music and MIDI (3)

Applied study of contemporary electronic music techniques. Applications of synthesizers, computers, and software in a variety of musical styles, utilizing the musical instrument digital interface (MIDI). Prerequisites: Music Theory I or equivalent; intermediate piano skill. Alternate J-terms: 2017, 2019.

MUCM 353 Sound Design (3)

Introduces sound production within a Digital Audio Workstation and in synthesizers. Students learn to record, edit, shape, mix, and master digital audio. Alternate J-terms: 2018, 2020.

MUCM 431 Foundations of Worship Leadership (3)

Organization and administration of a comprehensive church music program: multiple choir programs, rehearsals, specific musical services, facilities and equipment, budgets, literature, and recent trends in church music.

MUCM 443 Practicum in Worship Music (1-2)

Guided experience in leading church worship teams. Student assigned to direct a local church worship team with observations by College supervisor.

MUCM 444 Practicum in Studio Teaching (1)

Practical experience in teaching music in studio setting. Observation and evaluation by applied music instructor. Prerequisites: MUTH 101, 102, minimum of four credits in applied music.

MUED 140 Voice Class (1)

Applied voice in a class setting. Principles and techniques of voice production. Emphasis on basic knowledge of the voice in preparation for teaching vocal music in the classroom or choral setting.

MUED 201 Introduction to Music Education (1) This course is designed to provide students with an introduction to the music teaching profession. Course content is intended to prepare students for subsequent courses required for Pennsylvania certification to teach vocal and instrumental K-12. This course will include a ten-hour field experience that is comprised of visits to local schools to do observation only (band, orchestra, chorus, elementary general and secondary general music).

MUED 211 String Class (1)

Applied strings in a class setting. Designed to provide a practical playing knowledge of each string instrument (violin, viola, cello, string bass). Principal objective to prepare prospective school teachers to instruct beginners in strings.

MUED 221 Percussion Class (1)

Applied percussion in a class setting. Emphasis on techniques of playing snare drum in first portion of semester. In the latter part of the course attention is given to timpani, mallet, and effect instruments.

MUED 222 Brass Class (1)

Applied brass in a class setting. Basic techniques, problems, and teaching techniques for each brass instrument. Emphasis on ensemble performance.

MUED 227 Maintenance and Repair of Band Instruments (3)

Instruction in maintaining wind, brass, and percussion instruments as well as laboratory experience in making all repairs that do not require an extensive professional repair shop. Students assemble a repair kit capable of handling normal school instrument repairs and perform a major reconstruction of a damaged instrument as a final project.

MUED 240 Diction for Singers (1)

A study of the principles of Italian, Latin, French, German and English singing diction through the use of the International Phonetic Alphabet. The course includes individual and group spoken drills as well as critique of individual singing performances.

MUED 251 Conducting I: Fundamentals (2)

First semester experience intended to emphasize the most fundamental aspects of conducting including basic techniques such as score reading, ear training for the conductor, basic beat patterns, use of the left hand, and transposition. Prepares students to move into 300-level Instrumental and/or Choral Conducting.

MUED 301 Curriculum and Instruction: 6-12 Choral Music (with Field Experience) (3)

This course is designed to prepare pre-service teachers with materials and teaching strategies to plan and implement choral music instruction in the middle and secondary school settings: Grades 6-12. The course will involve the study of music education philosophies, repertoire selection, rehearsal planning, and assessment. Prerequisite: Admission to the Teacher Education Program. The course will include three, three-hour visits including one in a local middle school and two in local high schools. These visits will be observation only.

MUED 311 Woodwind Class (1)

Study of the clarinet to establish a basis for other woodwinds. Basic techniques of playing the flute, oboe, saxophone, and bassoon.

MUED 351 Conducting II: Choral (2)

This course will emphasize techniques directly associated with choral conducting. Further development of aural and physical techniques will be enhanced by discussion of repertoire, programming, and other issues specific to the preparation, teaching, and performance of choral music. Prerequisite: MUED 251.

MUED 352 Conducting II: Instrumental (2)

This course will emphasize techniques directly associated with instrumental conducting. Further development of aural and physical techniques will be enhanced by discussion of repertoire, programming, and other issues specific to the preparation, teaching and performance of instrumental music. Prerequisite: MUED 251.

MUED 401 Curriculum and Instruction: Instrumental Music 4-12 (with Field Experience) (3)

This course is designed to prepare pre-service teachers with materials and teaching strategies to plan and implement instrumental music instruction in school music programs in grades 4-12. The course will involve the study and evaluation of music education philosophies, materials, methods, approaches, and issues. Prerequisite: Admission to the Teacher Education Program. Regular visits to local elementary schools to teach individual instrumental lessons are included (approximately six hours).

MUED 402 Curriculum and Instruction: K-5 General Music (with Field Experience) (3)

This course is designed to prepare pre-service teachers with material and teaching strategies to plan and implement general music instruction in the elementary school setting: Grades K-5. The course will involve the study and evaluation of general music education philosophies, materials, methods, approaches, and issues. Prerequisite: Admission to the Teacher Education Program.

MUED 407 Student Teaching Seminar (1)

A seminar emphasizing disciplinary content issues that are specific to music teaching. Areas of focus include curricular and instructional decision-making processes; classroom management strategies; assessment techniques; adaptations for exceptional learners; instructional technology applications; and professional development., Prerequisite: Admission to the Professional Semester.

MUED 421 Marching Band Methods and Materials (3)

Materials and techniques for training high school marching bands. Offered as an independent study experience with the student assigned to work with a practicing high school band director.

MUEN xxx Music Ensembles. Participation in ensembles is open to all students by audition. (All Ensembles are available for .5 or 0 credit and are Pass/Fail grade only.)

MUEN 111 Concert Choir (.5)

Consists of approximately 45 mixed voices, chosen by audition. Literature includes mainly sacred choral music drawn from the Renaissance through the 20th century. Principal performances include Christmas concert and Spring concert, Spring Break tour and concerts at area churches. Two rehearsals per week.

MUEN 112 Choral Arts Society (.5)

College-community chorus, consisting of approximately 100 singers. Active in the four-month period, January to April. Annual spring concert presents a major choral work with full orchestral accompaniment.

MUEN 113 Women's Ensemble (.5)

This chorus of 75 College women functions in the Fall Semester and participates in the Christmas concert. One rehearsal per week.

MUEN 114 One College Ave (.5)

Consists of 16 vocalists plus a rhythm section. Performs jazz and popular classics. Performance schedule includes two on-campus appearances and occasional programs at local events. Two rehearsals per week.

MUEN 115 Men's Ensemble (.5)

Open to all students by audition. Performs a variety of repertoire for male voices for Christmas concerts, spring concerts, and chapels. One rehearsal per week.

MUEN 116 Chamber Singers (.5)

A select group of 12-16 members drawn from Concert Choir. Performs a cappella music of all periods. One rehearsal per week. Performs in Christmas and spring concerts and spring break tour with Concert Choir.

MUEN 117 Pit Orchestra (.5)

Select ensemble which accompanies musical theatre and opera productions.

MUEN 118 Tuba / Euphonium Choir (.5) The Tuba/Euphonium choir is open to students and community members who play tub or euphonium. The group rehearses once per week and performs a variety of original and transcribed works for the ensemble.

MUEN 121 Symphony Orchestra (.5)

Symphony orchestra open on an audition basis. Performs literature drawn from the Baroque through the 20th century, presenting three concerts each academic year. Also accompanies major choral and stage productions. Two rehearsals per week.

MUEN 122 Symphonic Winds (.5)

Concert band of selected instrumentation, composed of approximately 60 musicians, open on an audition basis. Performs the highest quality in wind band literature as well as light and popular selections. Two rehearsals per week.

MUEN 123 Horn Choir (.5)

The Horn Choir is open to all students and community members who play horn. The group rehearses once a week and performs once a semester on campus but is also available for performances at outside venues. The Horn Choir performs original and transcribed works for a variety of ensemble sizes, from 3 to 12 parts, although the primary focus is on quartet settings.

MUEN 124 Brass Choir (.5)

Brass choir is a select ensemble chosen by audition. Performs on and off campus. One rehearsal per week.

MUEN 125 Collaborative Piano (.5)

Guided experience in piano accompanying. Requires accompanying for one performer in weekly lessons and public appearances.

MUEN 126 Flute Choir (.5)

An ensemble of 10–12 flutes including alto and bass. Performs in Chapel and occasional off-campus worship services. One rehearsal per week.

MUEN 127 Chamber Ensemble (.5)

Various chamber groups are formed with the purpose of providing performing experience to qualified instrumentalists.

MUEN 128 Concert Handbell Choir (.5)

Includes 12 ringers chosen by audition in the fall. Performs in the Christmas concert, spring concert, and in various off-campus concerts. Two one-hour evening rehearsals per week.

MUEN 129 Trombone Choir (.5)

Trombone choir is open to students and community members who play trombone. The group rehearses once per week and performs a variety of original and transcribed works for the ensemble.

MUEN 130 Guitar Ensemble (.5)

An ensemble of three to six performers that develops players' note reading ability and fingerstyle techniques. The group plays a wide variety of music from the Renaissance to the 20th century. The ensemble performs on and off campus. One rehearsal per week.

MUEN 131 Percussion Ensemble (.5)

Consists of 10 to 12 members performing standard percussion and marimba ensemble repertoire. The group performs each semester.

MUEN 132 Recorder Consort (.5)

Small ensemble designed to include players on soprano, alto, tenor, and bass recorders. The music performed is taken predominantly from the Renaissance and Baroque periods. The ensemble performs one or two times at Christmas as well as in the Small Ensembles Concert each spring.

MUEN 133 Chamber Strings (.5)

String chamber groups rehearse weekly and perform on and off campus. Includes groups such as String Trio, String Quartet, or String Octet.

MUEN 134 Jazz Combo – Intermediate (.5)

Small group jazz offering for students who wish to develop improvisational skills through performance in a small ensemble. Rehearses once a week and performs primarily on campus. Prerequisite: Instructor's consent.

MUEN 135 Wind Ensemble (.5)

This 40–50 member select wind ensemble performs the highest level of wind band repertoire. Available for the most experienced players, this group rehearses two times per week, performs on and off campus. Records regularly and tours yearly.

MUEN 138 United Voices of Praise (.5)

Gospel choir of approximately 60–100 singers that meets once a week, performs on campus as well as local and regional churches.

MUEN 139 Music Ministry Team (.5)

Small student ensembles of variable instrumentation which perform in off-campus worship services. Open by audition.

MUEN 141 JazzONE (.5)

Big Band ensemble performs standard arrangements and more contemporary charts. Appears on campus each semester and occasionally in off-campus programs and tours. One rehearsal per week.

MUEN 142 JazzTWO (.5)

Big Band ensemble performs standard arrangements and more contemporary charts. Appears on campus each semester. One rehearsal per week.

MUEN 143 Woodwind Quintet (.5)

Chamber ensemble consisting of flute, oboe, clarinet, horn, and bassoon.

MUEN 144 Brass Chamber Music (.5)

Brass quartets or quintets formed to perform throughout the semester.

MUEN 145 Trumpet Ensemble (.5)

An all-trumpet ensemble comprised of music majors that performs locally and competes nationally.

MUEN 146 Music Four Hands (.5)

Ensemble of piano duets and quartets for campus and community performances.

MUEN 147 Saxophone Quartet (.5)

Ensemble comprised of soprano, alto, tenor, and baritone saxophones.

MUEN 148 Seven (.5)

A small traveling music ministry ensemble comprised of six to eight students that travels extensively during the summer. A wide range of music is performed highlighting various talents of the performers. Students are selected by audition.

MUEN 149 Opera Workshop (.5) Designed to provide students with an opportunity to focus on literature from Opera. This course will study basic knowledge and protocol of the stage as well as the craft of performing opera. Topics include stage direction and management, role development, learning of repertoire, and performance techniques. The course will include performance of "opera moments" in addition to a final Opera Scenes Concert. Designed as an opportunity for the more advanced singer, admission to this course will be based on the instructor's discretion.

MUEN 150 Clarinet Choir (.5)

The Clarinet Choir is open to students and community members who play clarinet. The group rehearses once per week and performs a variety of original and transcribed works for the ensemble.

MUEN 152 Chamber Orchestra (.5)

A select group of the most advanced orchestral musicians performing chamber orchestra repertoire from the Baroque to the present. Available for the most experienced players by audition, this group rehearses once weekly and performs on and off campus. Records and tours regularly.

MUEN 156 Worship Community (.5)

Students lead worship in college chapels by participation as vocalists and/or instrumentalists under the direction of the campus Minister of Worship.

MUGE 101 Fundamentals of Music Theory (3)

This course will provide students the history and appreciation of Western music from the Renaissance to the 20th century through lecture, listening, and class discussion, along with an opportunity to study the basic concepts involved in the analysis and composition of music. Designed for non-music majors, this course also serves as a viable precursor to Music Theory I (MUTH 101) so that music majors or minors with no prior knowledge of theory can better prepare to follow the course of study required for their degrees. Fundamentals of Music Theory will not count toward the degree for students who major or minor in music. Meets QuEST Arts requirement.

MUGE 203 Music Through Piano (3)

An introduction to Western music, including American popular styles, using the performance medium of the keyboard: piano, harpsichord, and synthesizer. Includes hands-on experience in performing keyboard music. Meets QuEST Arts requirement.

MUGE 209 Survey of Christian Song (3)

An introduction to music employed in Christian worship, including consideration of the worship experience, historical and current hymnody, and music for the trained choir. Includes hands-on experience in both keyboard playing and song leading. Meets QuEST Arts requirement.

MUGE 210 American Popular Music (3)

Survey concentrates on musical styles and types popular in American culture during the 19th and 20th Centuries; content includes the investigation of such types as pop songs, ragtime, jazz, and rock. The course requires active participation in listening to and performing popular music. Meets QuEST Arts requirement.

MUGE 213 Music Through Percussion (3)

Provides students with an introduction to the history and appreciation of Western music from the Renaissance to the 20th Century. Provides opportunity to study the elements of music through percussion instruments. The course, which will include the study of music by the major composers of the various historical periods, is examined through reading, listening to recordings, class discussion, and concert attendance. Meets QuEST Arts requirement.

MUGE 217 Music Through Singing (3)

This course helps students to gain an understanding of the voice through lecture/ demonstration, recital attendance, and singing in both class and individual settings. Class members will experience a variety of vocal styles and singing techniques as they survey the Western tradition through vocal music. Meets QuEST Arts requirement.

MUGE 218 Music Through Guitar (3)

Students will explore the role of the guitar and related fretted strings throughout the various historical periods from the Renaissance through the 20th century. Class members experience the basic elements of music as they learn to perform chords and melodies on the guitar. Other activities include watching videos, listening to recorded guitar music, and attendance at live concerts. Class members must supply their own guitars. Two class sessions and one-hour lab weekly. Meets QuEST Arts requirements.

MUGE 223 Jazz Improvisation (3)

Studies in the art of jazz improvisation through jazz theory, improvisation techniques, transcription and performance. Students will also survey the history of jazz and illuminate its impact on

American music and society, including contemporary worship. Meets QuEST Arts requirement.

MUGE 224 Songwriting for Beginners (3)

An introduction to the art of songwriting and music composition. Designed for the novice musician, this course also accommodates those with more substantial skills in the area of music. Class participants will have the opportunity to develop original ideas into song with the guidance of a composition professor. Through the writing of songs and setting of text (both sacred and secular), this course will provide for the study of music theory, composition, and history. The course will also provide students with the history and appreciation of Western music from the Renaissance to the 20th century through lecture, listening and class discussion. Meets QuEST Arts requirement.

MUGE 225 Worship Music through the Guitar (3) Applied guitar study with the performance in worship as the focus. This course will serve as a guide for the use of the guitar in modern worship settings. Through attention to guitar technique, chord reading, music reading, and accompanying, the students will develop the skills necessary to lead and accompany worship in a variety of styles. Students must have their own guitar. Meets QuEST Arts requirement.

MUMH 303, 304, 305 History of Music I, II, III (2, 3, 3)

Study of music from medieval to present day, stressing musical styles of various historical periods, schools, and individual composers.

MUMH 338 Studies in Global Music (2)

Designed to provide students with musical background opportunity to study a given Non-Western musical culture in depth. Through readings, listening, and direct musical experience students will come to understand some of the cultural and aesthetic differences of a specific non-Western music system. Meets QuEST Non-Western Studies requirement.

MUSI 001 Concert Attendance (0)

Involves both a weekly music seminar (student recital period) and a minimum of ten concerts/recitals per semester. Required of music majors each semester of full-time study except student teachers. (Pass/Fail grade only.)

MUSI 271 Musical Theatre (3)

Practical experience involving principles and techniques of musical theatre; performance and production; singing, acting, dancing, lighting, set construction; course culminates in the performance of a full musical or light opera. Cross-listed with THEA 260. Offered three consecutive years in a four-year cycle.

MUSI 291 Coaching Techniques (1) Through intensive coaching sessions with faculty, artists-in-residence, and guest artists, students are grounded in the skills necessary for creating and leading productive rehearsals. Students are also given practical experiences in coaching. Literature performed consists of standard accompanied solo and chamber works. One written project is required.

MUSI 301 Vocal Literature (1)

Beginning with the Baroque period, students survey the art song repertoire of Germany, Italy, Spain, France, England, and the United States. Course content includes lectures, application of IPA, listening, in-class performances, and written assignments. Special attention is paid to performance practice traditions and historical context.

MUSI 302 Instrumental Literature (1)

Broad survey of the instrumental solo and chamber music of the Common Practice Period (ca. 1600 to 1900) and Modern Era that include piano. Course content includes lectures and readings, listening and performance, and a large instrument-specific project. Special attention is paid to performance practice traditions and historical context.

MUSI 303 Piano Literature (1)

Beginning with the 17th century, students survey the literature for piano through the major works of such diverse composers as Rameau, Bach, Mozart, Beethoven, Chopin, Rachmaninoff, Debussy, and Prokofiev. Course content includes lectures, readings, listening, analysis, performance, and written assignments. Special attention on performance practice traditions and historical context.

MUSI 343 Piano Pedagogy (3)

Fundamentals and techniques of teaching piano, with studio teaching of individuals and small groups. Survey of methods and literature for pianists of various age levels, supplementary materials for music theory and appreciation, and teaching labs. Prerequisite: 8 credits of MUAP 121.

MUSI 344 Instrumental Pedagogy (3)

A foundational study of elements and materials used for teaching instrumentalists. Included topics are ergonomics and physical maintenance, rhythm and ensemble performance, developing better sight-reading skills, stylistically correct performance practice, and a survey of methods and aids for the studio setting.

MUSI 452 Vocal Pedagogy (3)

A study of the anatomy of the voice and the mechanics of singing. An exploration of the techniques and methods most commonly used in teaching voice. A survey of related topics such as diction, repertoire, vocal health, and voice classification. Members of the class will teach voice lessons for which basic piano skills are required. Prerequisite: Four semesters of MUAP 111.

MUSI 481 Senior Seminar in Music (1)

This capstone course investigates music's role in contemporary education, worship, and in the broader spectrum of American culture. Each student will formulate a personal artistic philosophy relating to his/her mission as an active Christian musician.

MUSI 485 Senior Seminar in Music and Worship (2)

This is the capstone course for the Music & Worship major in which students have the opportunity to articulate their understanding of Christian Worship and its place in the church and in society. In this course, students will investigate the role of Christian worship, theology, and the arts in contemporary congregational and familial life, and in the broader spectrum of American and global cultures. Fall semester only.

MUSI 491 Independent Study (1-3)

Independent study and research under the supervision of a College instructor, whose approval must precede enrollment. Topic to be determined by the student in consultation with the supervising instructor.

MUSI 497, 498 Major Honors (3, 3)

Independent creative and/or research program for junior and senior-level students who have a strong academic record for a minimum of

five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

MUTH 101 Music Theory I (3)

Basic elements of music, including scales, intervals, triads; emphasis on the analysis of melody and rhythm; harmonic analysis of root position chords; transpositions for all orchestral instruments; elementary keyboard harmony. Basic ability to read and notate music is expected. Students with no prior knowledge of music theory are encouraged to register for MUGE 101.

MUTH 102 Music Theory II (3)

Harmonic analysis of music written during the common practice period (ca. 1700-1850); composition in chordal texture, orchestrating for small ensembles (e.g., string quartet, brass quintet). Prerequisite: MUTH 101.

MUTH 107, 108, 207 Sight Singing and Ear Training I, II, III (1, 1, 1) Sight singing of melodies employing solfeggio; aural analysis of melodic, rhythmic, and harmonic aspects of music.

MUTH 109, 110 Keyboard I, II (1, 1)

Keyboard instruction in a lab setting; emphasis upon functional skills such as sight reading, score reading, harmonization, and transposition; designed to prepare music majors to successfully complete the Keyboard Proficiency Test.

MUTH 201 Music Theory III (3)

Harmonic analysis of music written during the Romantic period (ca. 1840-1910); composition projects in the more elementary forms (e.g., binary, ternary, theme and variations); orchestrating for ensembles and chamber orchestra; advanced keyboard harmony. Prerequisite: MUTH 102.

MUTH 202 Music Theory IV (3)

Analysis of 20th-century music; composition projects in more complex forms; orchestrating for wind ensemble, jazz band, etc.; advanced keyboard harmony, including modulation. Prerequisite: MUTH 201.

N**NURS 203 Historical and Conceptual Basis for Nursing (3)**

This course is designed to introduce the student to concepts basic to professional nursing from a Christian worldview with emphasis on person, health, environment, and nursing. It introduces the philosophy and organizing framework for the study of nursing at Messiah College. Consideration is given to the theoretical basis of professional nursing practice and to select nursing theories, with emphasis on Neuman's Systems Theory. The historical development of nursing from its Christian roots is briefly presented and the roles of the professional nurse in health care are introduced: provider of care, designer/manager/coordinator of care, and member of the profession. Course is limited to nursing majors or by special permission. (Three lecture hours/week.)

NURS 205 Professional Role Development (3)

This course introduces concepts of professional nursing from a Christian worldview within the metaparadigm of nursing. The philosophy and organizing framework of the Messiah College nursing curriculum is introduced with consideration of the theoretical basis of professional nursing practice and select nursing theories. The historical development of nursing from its Christian roots is

presented. Issues of healthcare problems/policy and financing are presented within the context of the roles of the professional nurse in health care. Offered online or in hybrid format. Course is limited to RN-MSN students.

NURS 210 Health Assessment (3)

The focus of this course is to establish a foundation in conducting a thorough health assessment. Included is an introduction to using appropriate communication techniques, obtaining a detailed health history, demonstrating physical assessment skills, and cultivating critical thinking. Physiological, psychological, sociocultural, developmental and spiritual variables are introduced as they relate to the nursing process. Essential assessment techniques include inspection, palpation, percussion and auscultation with an emphasis on expected findings and variations of those findings. Students practice comprehensive health history taking and physical assessment skills in laboratory sessions. (Two lecture hours/week, three laboratory hours/week.) Prerequisites: BIOL 185, BIOL 186, CHEM 103, PSYC 101/SOAN 101/HDFS 101, NURS 203. PSYC 209/HDFS 209. Co-requisites: NURS 211, NURS 303. Spring term. Course fee \$235.

NURS 211 Foundations of Nursing Practice (3)

This beginning clinical nursing course focuses on core competencies and knowledge as a foundation for nursing practice. Emphasis is on scientific rationale and critical thinking in implementing the nursing process using physiological, psychological, sociocultural, developmental and spiritual variables. Clinical experiences occur in the simulation laboratory and in various client care settings with emphasis on primary and secondary interventions and the provider of care role. (1 lecture hour/week, 6 clinical hours/ week.) Prerequisites: BIOL 185, BIOL 186, CHEM 103, PSYC 101/SOAN 101/HDFS 101, NURS 203, PSYC 209/HDFS 209. Co-requisites: NURS 210, NURS 303. Spring term. Course fee \$235.

NURS 303 Pathophysiology (3)

This is a non-clinical nursing course presenting major pathophysiology concepts. The subject matter focuses on disorders of human physiological systems from malfunction at the cellular, tissue, and organ levels. (3 lecture hours/week) Prerequisites: BIOL 185, BIOL 186, CHEM 103, PSYC 101/SOAN 101/HDFS 101, NURS 203, PSYC 209/HDFS 209. Co-requisites: NURS 210, NURS 211. Spring term.

NURS 304 Pharmacology (3)

This is a non-clinical nursing course presenting principles and major concepts of pharmacology. The subject matter focuses on major drug classifications, with associated uses, effects, and patient education. (3 lecture hours/week). Prerequisite: BIOL 189, BIOL 382, NURS 210, 211, 303. Co-requisites: NURS 310, NURS 311. Fall semesters.

NURS 305 Nursing Research I (2)

Introduces, defines and emphasizes methods of qualitative and quantitative systematic inquiry. Designed to help students become critical consumers of published research. (Two lecture hours/week.) Prerequisites: NURS 310, NURS 311. Prerequisite or concurrent registration: STAT 269. Concurrent: NURS 312, NURS 313. Spring term.

NURS 310 Nursing Care of the Childbearing Family (4)

This clinical nursing course focuses on the client system of the childbearing family. Intervention strategies focus on primary, secondary and tertiary prevention incorporating physiological,

psychological, sociocultural, developmental and spiritual variables. Clinical experiences occur in inpatient and community settings. Emphasis is on the provider of care role and introduction of the designer/manager/coordinator of care role. The length of this course is one-half of the Fall Semester. (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: BIOL 189, BIOL 382, NURS 210, NURS 211. Prerequisite or concurrent registration: NURS 304. Co-requisite: NURS 311. Course fee \$235.

NURS 311 Nursing Care of Adults and Older Adults I (4)

The focus of this clinical nursing course is the client system composed of adults and older adults, in the context of families, experiencing stressors that threaten system stability. Physiological, psychological, sociocultural, developmental and spiritual variables are incorporated in the nursing process. Intervention strategies focus on primary, secondary, and tertiary prevention. Clinical learning experiences may occur in medical-surgical inpatient settings as well as various community settings and emphasize the provider of care role and introduce the designer/manager/coordinator of care role. The length of this course is one-half of the Fall Semester. (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: BIOL 189, BIOL 382, NURS 210, NURS 211. Prerequisite or concurrent registration: NURS 304. Co-requisite: NURS 310. Course fee \$235.

NURS 312 Nursing Care of Adults and Older Adults II (4)

This course is a continuation of Nursing Care of Adults and Older Adults I and is focused on the client system composed of adults and older adults, in the context of families, experiencing stressors that threaten system stability. Physiological, psychological, sociocultural, developmental and spiritual variables are incorporated in the nursing process. Intervention strategies focus on primary, secondary, and tertiary prevention. Clinical learning experiences may occur in medical-surgical inpatient settings as well as various community settings and emphasize the provider of care role and introduce the designer/manager/coordinator of care role. The length of this course is one-half of the Spring term. (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: NURS 310, NURS 311. Co-requisites: NURS 305, NURS 313. Prerequisite or concurrent: NUTR 222. Course fee \$235.

NURS 313 Nursing Care of Infants, Children and Adolescents (4)

This clinical nursing course focuses on using the nursing process in providing care for the client system of infants, children, and adolescents. Intervention strategies focus on primary, secondary and tertiary prevention incorporating physiological, psychological, sociocultural, developmental and spiritual variables. Clinical experiences emphasize the provider of care role and the designer/manager/coordinator of care role in pediatric inpatient, outpatient, and community settings. The length of this course is one-half of the Spring term . (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: NURS 310, NURS 311. Co-requisites: NURS 305, NURS 312. Prerequisite or concurrent: NUTR 222. Course fee \$235.

NURS 394 Advances in Nursing I (3) Additional nursing principles of special interest to the instructor and/or students. Lecture hours and clinical laboratory to be determined. Prerequisites: NURS 203, NURS 210, NURS 211 or with special permission.

NURS 405 Nursing Research II (2)

Reviews, clarifies, and extends nursing research concepts presented in NURS 305 Emphasizes the methods and use of evidence-based practice in the provider and designer/manager/coordinator of care

roles. (Two lecture hours/week.) Prerequisite: NURS 305; Co-requisites: NURS 410, NURS 411. Fall semesters.

NURS 410 Psychiatric/Mental Health Nursing (4)

This clinical nursing course focuses on the client system of adults and adolescents who are experiencing difficulties in living or are mentally ill. Intervention strategies focus on primary, secondary, and tertiary prevention with incorporation of physiological, psychological, sociocultural, developmental and spiritual variables in using the nursing process. Clinical experiences emphasize the provider of care role and the designer/manager/coordinator of care role in psychiatric inpatient, outpatient, and community settings. The length of this course is one-half of the Fall Semester. (Four lecture hours/week, 12 clinical hours/week.) Prerequisite: NURS 305. Co-requisites: NURS 405, NURS 411. Course fee \$235.

NURS 411 Nursing Care of the Critically Ill (4)

This clinical nursing course focuses on the client system of persons experiencing crises and complex health problems across the lifespan. Physiological, psychological, sociocultural, developmental and spiritual variables are incorporated into the nursing process. Secondary prevention is expanded for the provider of care role and tertiary prevention is expanded for the designer/manager/coordinator of care role in acute/critical care settings. Clinical experiences include adult and pediatric critical care and emergency care settings. The length of this course is one-half of the Fall Semester. (Four lecture hours/week, 12 clinical hours/week.) Prerequisites: NURS 305. Co-requisites: NURS 405, NURS 410. Course fee \$235.

NURS 412 Community Health Nursing (4)

This clinical nursing course focuses on client systems in the community including the community in crisis. Physiological, psychological, sociocultural, developmental and spiritual variables are incorporated into the nursing process. Intervention strategies include primary, secondary and tertiary prevention, emphasizing health promotion and risk reduction. Clinical experiences focus on vulnerable populations, health care disparities, social justice issues, and policy development. Provider of care, designer/manager/coordinator of care, and member of the profession roles are related to community and public health. (Two lecture hours/week, 6 clinical hours/week.) Prerequisite: NURS 495. Co-requisites: NURS 413, NURS 496. Spring term. Course fee \$235.

NURS 413 Leadership in Nursing (3)

The focus of this course is development of the leadership for entry level nursing practice with emphasis on the designer/manager/coordinator of care role. The concepts of primary, secondary, and tertiary prevention are examined in relation to leadership and management principles applied in health care organizations and systems. Critical skills such as communication, collaboration, negotiation, delegation, coordination, evaluation of interdisciplinary work, and the application of outcome-based practice models are cultivated. (One lecture hour per week, six clinical hours per week.) Prerequisite: NURS 495. Co-requisites: NURS 412, NURS 496. Spring term. Course fee \$235.

NURS 491 Independent Study (1-3)

Independent study under the supervision of an instructor whose approval must precede the student's enrollment.

NURS 494 Advances in Nursing II (3)

Advanced nursing principles of special interest to the instructor and/or students. Lecture hours and clinical laboratory hours to be

determined. Prerequisites: NURS 312, NURS 313 or by special permission.

NURS 495 Senior Practicum (3)

This clinical nursing course focuses on the development of clinical decision-making skills and refinement of clinical coordinating behaviors with groups of clients with emphasis on the designer/manager/coordinator care role. Students are provided with opportunities to synthesize theoretical knowledge, clinical skills, nursing process, and professional role behaviors in clinical laboratories and through peer seminars. Clinical experiences focus on the care of groups of clients in a variety of settings in collaboration with clinical nurse preceptors. Prerequisites: NURS 405, NURS 410, NURS 411. J-term. **Mechanicsburg Option:** Three credit hours: 1 lecture hour per week, 90 hours total clinical laboratory hours flexibly scheduled in collaboration with selected, approved, on-site clinical nurse preceptors. **International Options:** Emphasis on global health issues and cross-cultural understanding of cultural diversity, geared to students with interest in international or mission nursing. The Thailand option includes urban and rural settings; Zambia option is at the Macha Mission Hospital, a rural community. Messiah College faculty serve as clinical nurse preceptors, along with local nurses and student nurses when qualified. Course fee to be announced.

NURS 496 Senior Seminar in Nursing (3)

This senior capstone course ensures that students engage in critical thinking about the philosophical and ethical assumptions of the Christian vocation of nursing. The focus of the course is on one's role as a member of a profession and how faith intersects with that role. A variety of current professional issues are examined with particular emphasis on preparing for the transition to professional practice, engaging in continued professional development, promoting excellence in nursing practice, complying with legal and ethical guidelines and principles, and influencing health care policy. Prerequisite: NURS 495. Co-requisites: NURS 412, NURS 413. Spring term.

NUTR 099 Opportunities in Nutrition, Food Service, and Dietetics (1)

This course is designed for students majoring in Nutrition and Dietetics as well as students considering this major. Course topics include the history of nutrition, food service, and dietetics, current career opportunities and trends, knowledge and skills required for success, and ethical issues in food and nutrition practice. Prerequisite: Nutrition and Dietetics major. Fall semesters.

NUTR 110 Science and Nutrition (3)

A survey of basic nutrition science for non-majors. Includes methods of obtaining and evaluating data, nutrient sources and function, and practical application. Two lectures and three hours of laboratory per week. Not appropriate for students who have taken or are planning to take NUTR 222. Meets QuEST Laboratory Science requirement. Course fee \$65.

NUTR 121 Food and Food Science (3)

Basic examination of the principles of food science, with an emphasis on techniques which illustrate those principles. Two lectures and three hours of laboratory per week. Prerequisite: (CHEM 101, 103, or 105) and NUTR 110. Spring term. Course fee \$65.

NUTR 222 Nutrition Theory (3)

Introduction to nutrition science for allied health majors. Includes nutrient sources and functions, nutrient metabolism and basic dietary assessment. Prerequisite: CHEM 101, 103 or 105.

NUTR 322 Nutrition through the Life Cycle (3)

Examination of the nutritional requirements of pregnancy, growth, adulthood, and aging. Includes nutritional assessment and factors that affect food habits at various ages. Prerequisite: NUTR 222. Fall semesters.

NUTR 331 Advanced Food Science and Technology (3)

Examination of the U.S. food supply with emphasis on food product development and marketing, food composition, ingredient functions, food processing and preservation, genetically modified foods, and laws and regulations that control and protect the food supply. Prerequisites: 1) Either NUTR 110 or NUTR 222 and 2) NUTR 121. Alternate Spring terms: 2017, 2019. Course fee \$65.

NUTR 341 Food Service (4)

Examination of the standards, principles and techniques required to produce food in quantity including food purchasing, facility layout, equipment selection, quality control, service and distribution, and management. Three lectures and three hours of laboratory per week. Prerequisites: BUSA 120, NUTR 121. Alternate Fall semesters: 2018, 2020. Course fee \$65.

NUTR 352 Community Nutrition (3)

Study of the methods used to provide nutrition care to communities, with consideration given to community nutrition problems, current services, communicating with the public, grant writing, and program planning and evaluation. Prerequisite: NUTR 322. Alternate Spring terms: 2017, 2019.

NUTR 391 Nutrition and Dietetics Practicum (1-3)

Supervised experience in a facility employing foods and nutrition professionals (e.g., hospital, nursing home, food business, community agency, etc.). Open to junior and senior nutrition majors. Prerequisites: NUTR 222 and Instructor's consent.

NUTR 410 Nutrition Education and Counseling (3)

Examination and application of current techniques for effective nutrition education and counseling. Students will develop and present a nutrition education lesson and provide individualized nutrition counseling under faculty supervision. Two hours of lecture and three hours of laboratory per week. Prerequisites: Senior Nutrition and Dietetics, meet department GPA criteria, COMM 105, PSYC 101, STAT 269, NUTR 121, NUTR 322, {BIOL 185, 186} or {BIOL 160, 161 and 385}, and {CHEM 204} or {CHEM 309 and 310}. Fall semesters. Course fee \$65.

NUTR 411 Medical Nutrition Therapy I (3)

Study and application of the principles of the nutrition care process to medical nutrition. The course focuses on nutrition assessment and diagnosis, the design and implementation of nutrition care, and evaluation of client response and progress. It includes an introduction to pharmacology and pathophysiology, as well as enteral and parenteral nutrition support. Three lectures per week. Prerequisites: Meet department GPA criteria and NUTR 121, NUTR 322, {BIOL 185 and 186} or {BIOL 160, 161 and 385}, STAT 269 and {CHEM 204} or {CHEM 309 and 310}. Alternate fall semesters: 2017, 2019.

NUTR 412 Medical Nutrition Therapy II (3)

Continuation of the study and application of the nutrition care process to medical nutrition. Students study the pathophysiology of and current nutrition therapies for a variety of illnesses and injuries, including cooking techniques and foods appropriate for preventing

and treating specific medical conditions. Two lectures and three hours of laboratory per week. Prerequisite: NUTR 411. Alternate Spring terms: 2018, 2020. Course fee \$65.

NUTR 422 Senior Research (1-3)

Offered during the fall and spring semester for fourth year students. Students carry out research projects proposed in NUTR 491. Faculty and students will meet regularly during the semester for progress updates and to discuss other topics as needed. The project will typically culminate with the submission of a written research report and an oral presentation that is advertised campus wide. Prerequisites: Senior year standing, approval of the student's academic advisor and department chair, and completion of 1 credit of NUTR 491. Maximum of three credits per semester with the total not exceeding 5 credits. Cross listed with BIOL 422/CHEM 422.

NUTR 425 Nutrient Metabolism and Research Methods I (4)

Students study biochemistry of macronutrient metabolism and function, as well as body composition and energy expenditure. In addition, the course focuses on research methodology including advanced literature searching, research design, and interpretation of research data. Students select a research topic, write a literature review and design a research project which is completed in NUTR 426. Three hours of lecture and three hours of laboratory per week. Prerequisites: Meet department GPA criteria, NUTR 121, NUTR 322, STAT 269, {BIOL 185 and 186} or {BIOL 160, 161 and 385}, and CHEM 204 or {CHEM 309 and CHEM 310}. Alternate Fall semesters: 2017, 2019. Course fee \$65.

NUTR 426 Nutrient Metabolism and Research Methods II (3)

Students study the biochemistry of micronutrient metabolism and function as well as nutrigenomics. In addition, students complete the research project designed in NUTR 425, including a written research report and an oral presentation. Two hours of lecture and three hours of laboratory per week. Prerequisite: NUTR 425. Alternate Spring terms: 2018, 2020. Course fee \$65.

NUTR 491 Independent Study (1- 3) Junior and senior students with at least a B average may select a problem for independent investigation in a special area of foods and nutrition.

NUTR 493 Senior Seminar in Nutrition, Food Service, and Dietetics (1) Senior Seminar in Nutrition, Food Service, and Dietetics: Topics addressed include Christian perspectives, ethical concerns and social responsibility issues relating to nutrition, food service, and dietetics practice. Students explore career options and prepare for postgraduate education or employment. Prerequisite: Senior Nutrition and Dietetics major. Fall semesters.

NUTR 497, 498 Major Honors I, II (2-3, 2-3)

Completion of a research or service-learning project for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5, Major GPA of 3.8, NUTR 491, and departmental approval required for enrollment.

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PACS 201 Basic Conflict Mediation (3)

This course provides instruction in such essential skills as empathetic-communication, active listening, productive questioning, managing group dynamics, consensus building, and collaborative problem solving. An understanding of the sources of conflict, coupled with knowledge of conflict styles, enhances the

ability to resolve disputes and enables the conflict specialist to work in a variety of settings. This course also provides an overview of the theoretical and practical aspects of the mediation process. It involves learning a step-by-step process to conduct mediations and practice fundamental dispute resolution skills, such as listening, reframing, summarizing, problem-solving, and creating a safe, non-threatening environment.

PACS 495 Senior Seminar in Peace and Conflict Studies (3)

The capstone course for the PACS major is particularly important because it will enable students to integrate their inter-disciplinary study, their PACS studies, and their Christian faith. The opportunities and challenges of pursuing PACS as a vocation will be examined, and students will engage in independent research and writing, which explores a personal area of interest relevant to PACS.

PHED 102 Intercollegiate Sports (1)

Meets QuEST Wellness requirement.

PHIL 101 Problems of Philosophy (3)

Both critical and constructive thinking is developed in dealing with the theory of human knowledge and the theory of reality. Meets QuEST Philosophy requirement.

PHIL 102 History of Philosophy (3)

Study of Western philosophical systems from the sixth century B.C. to the present with particular attention to major historical periods and developments. Meets QuEST Philosophy requirement.

PHIL 220 Introduction to Logic (3)

Introduction to basic systems of logic, including categorical logic, sentential logic, and predicate logic (and may include inductive logic and/or basic modal systems). Emphasizes the ability to translate between symbolic and natural languages and the ability to construct proofs. Alternate years: 2018-2019, 2020-2021.

PHIL 247 Ancient and Medieval Philosophy (3) A study of Western philosophy from its beginnings in the ancient Greek world through the Middle Ages, with an emphasis on the following philosophers: Plato, Aristotle, Augustine, and Aquinas. Prerequisite: PHIL 101 or 102. Alternate years: 2018-2019, 2020-2021.

PHIL 253 Modern Philosophy (3)

A study of Western philosophy since the Middle Ages, with an emphasis on leading philosophers of the 17th and 18th Centuries such as Descartes, Locke, Hume, and Kant. Prerequisite: PHIL 101 or 102. Alternate years: 2018-2019, 2020-2021.

PHIL 310 Contemporary Continental Philosophy (3)

An examination of key movements such as phenomenology, existentialism, hermeneutics, and postmodernism, with particular emphasis on the work of Husserl, Heidegger, Levinas, and Derrida. Prerequisite: PHIL 101 or 102.

PHIL 318 Asian Philosophy (3) Investigation of the most important Asian philosophers and schools of philosophy. Prerequisite: PHIL 101 or 102. Meets QuEST Non-Western Studies requirement. Alternate years: 2018-2019, 2020-2021.

PHIL 325 Moral Problems (3)

The analysis and consideration of such problems in applied ethics as abortion, war, the authority of government, affirmative action, homosexuality, and hunger. Special consideration is given to the

relationship of these problems to issues of moral theory. Prerequisite: IDCR 151. Meets QuEST Ethics requirement. Alternate years: 2017-2018; 2019-2020.

PHIL 341 Epistemology and Metaphysics (3)

The analytical study of central epistemological concepts such as knowledge, rationality, intuition, belief, and perception and of central metaphysical problems such as the mind/body problem, personal identity, freedom and determinism, and the relationship of reality to human cognition. There will be a special emphasis on issues of importance to Christian faith, such as the epistemology of religious belief, and on the relationship of epistemological issues to metaphysical issues. Prerequisite: PHIL 101 or 102. Alternate years: 2018-2019, 2020-2021.

PHIL 342 Aesthetics (3) An exploration of the history of aesthetic theory with particular focus on the philosophy of imagination in relation to Christian thought. Prerequisite: PHIL 101 or 102. Alternate years: 2017-2018; 2019-2020.

PHIL 345 Philosophy of Religion (3)

Major issues in philosophy of religion, with special attention to the evidence for God's existence and the Christian faith, the problem of evil, faith and reason, alternatives to Christian belief, and philosophical analyses of key Christian doctrines such as the doctrine of Atonement, Incarnation, and Hell. Prerequisite: IDCR 151. Meets QuEST World Views requirement. Alternate years: 2017-2018; 2019-2020.

PHIL 352 Existentialism (3)

Existentialism, an intellectual movement that came to prominence in the 19th and 20th centuries, holds that the most fundamental questions are too important to be merely factual or objective, too important to be decided by scientists or other experts. Such existential questions, such as "Who am I?", "What gives my life purpose and significance?", require thought on the part of the individual. Existentialists are especially concerned with the ideas of individual freedom and self-creation. We shall explore these and other major existentialist themes through selected readings of Kierkegaard, Nietzsche, Heidegger, and Sartre. Alternate Fall semesters: 2018, 2020.

PHIL 354 Phenomenology (3)

Phenomenology is one of the most influential philosophical movements of the 20th century. Underlying its development were several basic philosophical problems: knowledge of the "external" world, the foundations of logic, and how to proceed in philosophy without presupposing all sorts of controversial assumptions. In the course of trying to solve these problems, phenomenology gave rise to numerous theories popular today, including modern existentialism, structuralism, deconstruction and postmodernism. Anyone who wants a deeper understanding of these movements should take this course. Alternate Spring semesters: 2018, 2020.

PHIL 356 Minds and Machines (3)

A machine with strong or general artificial intelligence is capable of thought, understanding, and consciousness. There is much debate about whether such machines can be built and (if they can be built) what it would mean for a computer to be capable of genuine understanding. In this course, we will examine these conflicting claims. In addition, we will consider some of the philosophical, ethical, and practical implications of such machines. Meets QuEST Science, Technology, and the World requirement. Spring terms.

PHIL 360 Topics in Philosophy (3)

Selected topics in philosophy not currently included in course offerings such as philosophical problems, figures, schools of thought, or historical periods. May be repeated for additional credit as the topic/study changes. Prerequisite: PHIL 101 or 102.

PHIL 362 Philosophy of Science (3)

Investigation of the methods of science, its ability to gain knowledge of the world, its historical development and its relation to religion. Meets QuEST Science, Technology and the World requirement. Alternate years: 2018-2019, 2020-2021.

PHIL 382 Ethics (3)

Constructive and analytical involvement in the questions of normative ethics and metaethics. Philosophical and religious resources are appropriated. Special consideration of the ethical relevance in contemporary society. Prerequisite: IDCR 151. Meets QuEST Ethics requirement.

PHIL 460 Philosophy Seminar (3)

Research seminar on selected philosophical themes such as realism, relativism, virtue, justice, or rationality. The writing and class presentation of a major research paper is required. Open only to juniors and seniors. Prerequisite: Six credits PHIL 300-level or above.

PHIL 491 Independent Study (1-3)

Selected subjects pursued independently with frequent consultation with a faculty supervisor.

PHIL 497, 498 Major Honors (3, 3)

Independent research program for students who have a strong academic record (3.5 cumulative GPA) for a minimum of five previous semesters of college study. Departmental approval required for enrollment.

PHSC 102 Foundations of Physical Science (3)

Selected topics in the physical sciences designed for Education majors. Two lectures and three hours of laboratory per week. Along with BIOL 106, PHSC 102 meets QuEST Laboratory Science requirement for Education majors only. Course fee \$65.

PHYS 180 Physics Exploration (2)

This physics laboratory course is designed to give students in the physics majors (or those interested in the majors) an overview of the field of physics via hands on exploration, and to increase awareness of career opportunities in the field. Required for first-year students in the Physics and Physics with Teaching Certification, and open to all students. Course fee \$65.

PHYS 201 Introductory Physics I (4)

Survey of classical mechanics, stressing basic concepts and problem solving. Topics include vectors, motion in one and two dimensions, gravitation, Newton's Laws, the conservation of energy and momentum, harmonic motion, and waves. Three lecture periods and three hours laboratory per week. Recommended for biology, chemistry, and health science majors. Meets QuEST Laboratory Science requirement. Pre- or co-requisite: MATH 102, 108 or 111. Fall semesters. Course fee \$65.

PHYS 202 Introductory Physics II (4)

Survey of electricity and optics, stressing basic concepts and problem solving, culminating in an historical and conceptual treatment of relativity and modern physics. Three lecture periods and three hours

of laboratory per week. Recommended for biology, chemistry, and health science majors. Meets QuEST Laboratory Science requirement. Prerequisite: MATH 102, 108 or 111. Spring term. Course fee \$65.

PHYS 211 General Physics I (4)

First of a two-semester calculus-based general physics sequence. Models static and dynamic mechanical phenomena by classical methods for basic analysis, prediction, and problem solving. Experiments provide practice in measurement, data analysis, and illustrations of physical principles. Vector analysis and standard SI units are utilized. Topics include kinematics, Newton's Laws, work and energy, momentum and impulse, and rotational kinematics and dynamics. Three lectures and three hours of laboratory per week. Required for engineering, mathematics, chemistry and physics majors. Recommended for computer science majors. Meets QuEST Laboratory Science requirement. Prerequisite: a grade of C- or better in MATH 111. Course fee \$65.

PHYS 212 General Physics II (4)

Second of a two-semester calculus-based general physics sequence. Builds on basics of classical mechanics and other methods introduced in PHYS 211. Emphasis on concepts, calculations, measurements, problem solving, and applications. Topics include mechanical oscillations and waves, electrostatics, electricity, and magnetism and light. Three lectures and three hours of laboratory per week. Required for engineering, mathematics, chemistry and physics majors. Recommended for computer science majors. Prerequisite: a grade of C- or better in MATH 111. Course fee \$65.

PHYS 218 Speech and Hearing Science (3)

This course is designed to provide students with a foundational understanding of the physical principles involved in speech and hearing. Topics covered include: simple harmonic oscillation, resonance, pressure, sound waves, vibrational modes, interference, and principles of sound measurements. These topics will be directly related to human speech and hearing in physiological and pathological situations. Fall semesters.

PHYS 251 Modern Physics (4)

Topics in Modern Physics: special theory of relativity, quantization of charge and energy, wavelike properties of particles, Schrödinger Equations, spectra of the atoms, molecular structures and spectra, quantum theory of conductors, semiconductors, the Hall effect and nuclear and particle physics. Three lectures and three hours of laboratory per week. Prerequisite PHYS 212. Course fee \$65.

PHYS 291 Independent Study (1-3)

Independent study in physics under the direction of an instructor.

PHYS 307 Physics Instruction (2)

This course is a methods course in secondary physics curriculum and instruction. Areas of focus include current national and international curriculum standards and best-practices in secondary physics teaching. The course includes a significant practical component of evaluated mock lessons delivered by students, with peer and instructor feedback. Spring term. Prerequisite: Admission to the Teacher Education Program.

PHYS 328 Mechanics (3) Topics include: Dynamics of particles and rigid bodies in one, two and three dimensions, collisions, central forces. This course is a development of classical mechanics beyond the introductory physics level. Lagrangians and Hamiltonians will

also be discussed. Prerequisite: PHYS 211 and one of {MATH 270, MATH 308 or MATH 261}.

PHYS 391 Independent Research (1-3)

Independent experimental research intended for juniors under the direction of a faculty member. One to two credits of research will culminate in a written report, with the option of presenting a poster at a campus research symposium. Students taking three credits of research in one academic year must complete the written report and a poster presentation for a fall or spring research presentation. This course may be taken for credit more than once. Prerequisite: junior or senior status and instructor consent.

PHYS 402 Quantum Mechanics (3)

Topics include: Modern Quantum Mechanics, the formalism, time evolution of wave function, identical particles, harmonic oscillator, hydrogen atom, perturbation theory. Prerequisite: PHYS 251.

PHYS 407 Professional Issues in Secondary Physics Education (1)

This course is a seminar course emphasizing disciplinary content issues in secondary physics teaching. Classroom management techniques, assessment strategies, adaptations for exceptional learners, lab safety and instruction, and instructional technology will be discussed in the context of equipping students to participate in the professional community of physics teachers. Fall semesters. Prerequisite: Approval for the Professional Semester.

PHYS 421 Particle Physics (3)

This course is a survey in particle physics. Recent developments in the field have seen a symbiosis of elementary particles and astrophysics. The focus of the course will be particles and interactions, Standard Model, extensions to the Standard Model, early universe, dark matter, dark energy, particles and radiation in the cosmos, cosmic rays, and particle physics in the stars. Prerequisites: {MATH 270 (or MATH 308 and MATH 261)} and PHYS 251.

PHYS 425 Solid State Physics (3)

This course provides a basic understanding of the arrangement of atoms and electrons in solid materials, and how atomic structure is used to explain the macroscopic properties of the material. Topics include crystal structure, crystal diffraction, reciprocal lattice, lattice vibrations and phonons, free electron theory, energy bands in solids, semiconductors, and optical properties of materials. Prerequisites: one of {MATH 211, MATH 270} and one of {PHYS 251, CHEM 438}.

PHYS 494 Senior Physics Seminar (2)

This is a capstone senior seminar, in which students articulate their career interests, engage in discussions about physics and society such as faith and ethical issues, and conduct research on a topic of their choice. The research findings are disseminated through a presentation and a scientific style journal report. The Educational Testing Service's Major Field Test in Physics will be administered in this course and is a requirement for graduation. Prerequisite: Senior status and PHYS 251.

POLI 113 American Government (3)

An introduction to the structure and operation of the executive, legislative, and judicial branches of the federal government, with special attention to the impact of the electorate, parties, and interest groups on the federal policy-making process. Meets QuEST Social Sciences requirement.

POLI 204 History of Political Thought (3)

Considers the evolution of political ideas as reflected in the work of Western political philosophers from Plato to Marx.

POLI 212 International Politics (3)

An introduction to contemporary international politics. Special attention is given to the nature of the nation-state system, globalization, economic and political development, and regional politics, including Europe and the Middle East.

POLI 213 Comparative Politics (3)

An introduction to the basic ideas and structures of political life. Particular attention given to examining the dominant belief systems of modern political regimes. Among the institutions considered: parties, interest groups, elections, legislatures, and executives. Meets QuEST Social Sciences requirement.

POLI 214 Constitutional Law: Governmental Powers and Constraints (3)

By reading and analyzing Supreme Court opinions, students will become familiar with how the Court has answered questions regarding the powers of Congress, the President, and the federal judiciary, as well as constraints on those powers. In addition, significant attention will be given to the Court's changing understanding of the relationship between the national government and the states, and of the government's power to regulate economic activity.

POLI 220 Parties and Elections (3)

An examination of the role of American political parties and the nomination and electoral process at the national level. Special emphasis on the voting behavior of individuals and groups.

POLI 222 Politics in Latin America (3)

This course will examine the interdependent relations of various factors (political, social, historical, cultural, and economic) both internal and external to the political system in Latin American states. Students will develop an appreciation of the nature of cross-national/cultural analysis, as well as an understanding of the impact of global policies on Latin American states. The culmination of this course will result in the acquisition of analytical skills to explain patterns of political stability and political change within nation-states and regions of this area. Meets QuEST Non-Western Studies requirement. Alternate years: 2017-2018; 2019-2020.

POLI 231 Politics in Film (3)

This course will examine the ways in which films contribute to political understanding by reflecting political culture and structure. Political themes to be covered include: the historical and potential roles of the executive, legislative, and judicial branches; racial and gender inequality; & issues in civil liberties. Prerequisite: POLI 113.

POLI 240 American Presidency (3)

A study of the changing role of the president in the United States. Special emphasis given to the powers and limitations of the office, decision-making process, and the importance of personality.

POLI 243 Political Research Methods (3)

In this course students will learn how to investigate a political question, enabling them to: evaluate the process of research in political science; focus on research design; recognize the importance of reading comprehension and writing skills as prerequisites for good research; discuss ethical issues in research; acquire conceptual components of the research process (theories, hypotheses, etc.);

understand qualitative and quantitative methods of analysis and processing; develop computer-based training in quantitative analysis and interpretation of basic statistics.

POLI 310 American Political Thought (3)

This course devotes significant attention to topics that relate directly to concept of pluralism including the relationship between religion and politics and how the legacy of racial oppression squares with the principles on which our country is founded. Topics include: the ideas articulated in the Declaration of Independence; the elements of Puritan thought; religion and the argument for American independence; the relationship between religion and politics; the framing of the Constitution; different views regarding the legitimacy of slavery under the Constitution; Abraham Lincoln's understanding of and commitment to the American Union; and, finally, Progressive views regarding the nature of good government. Meets QuEST Pluralism requirement.

POLI 315 United States Foreign Policy (3)

An examination of U.S. foreign policy with special attention given to the Cold War and its aftermath. Alternate years: 2017-2018; 2019-2020.

POLI 316 Constitutional Law: Civil Liberties and Civil Rights (3)

By reading and analyzing Supreme Court opinions, students will become familiar with the Court's historical willingness and unwillingness to protect individual liberties and rights from governmental infringement. Specific topics include: applying the Bill of Rights to the states; free exercise of religion; religious establishment; freedom of speech, assembly, and association; freedom of the press; the right to bear arms; the right to privacy; the rights of the criminally accused; and discrimination on the basis of race, gender, and sexual orientation. Meets QuEST Pluralism requirement.

POLI 320 Ethnic and Racial Politics in America (3)

A thematic approach to the study of ethnicity and race in American political life. Topics include the politics of immigration, partisanship and machine politics, public policy and race, and the Civil Rights movement. Prerequisite: IDCR 151. Meets QuEST Ethics requirement. Alternate years: 2017-2018; 2019-2020.

POLI 323 Public Policy (3)

Examines the planning, implementation, and evaluation of public policy with special attention given to public policy at the state and federal level. Specific public policy issues, including social, economic, and environmental topics, are discussed. Prerequisite: POLI 113. Alternate years: 2018-2019, 2020-2021.

POLI 325 Women, Family and Politics (3)

This course will examine the role of women in politics and their contribution to public policy. Students will be exposed, in an interdisciplinary method, to the sociological and psychological development of women, the dynamic impact of culture and norms on this development, and the resulting way in which women contribute to the political process. Ultimately, the course will allow students to analyze the impact that various socialization factors (such as families), demographic factors (such as race, ethnicity and class) and gender stereotypes have on the development of women, as well as the importance of women's contributions to policymaking related to gender and family issues. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

POLI 330 Terrorism (3)

Investigates the theory and practice of terrorism as a means of political change. Also considers approaches to, as well as the moral basis of, counter-terrorism. Prerequisite: IDCR 151. Meets QuEST Ethics requirement.

POLI 332 Congress (3)

A study of legislators, the legislative process, structures, and policy impact of the United States Senate and House of Representatives.

POLI 334 Public Opinion and Political Socialization (3)

This course focuses on the nature of public opinion and its role in the political process; myths and symbols in opinion formation; modern methods of opinion measurement (e.g., surveys, polls, samples); the nature and role of propaganda under democratic and totalitarian systems of government and the role of newspapers, radio, television, and other media of communication in opinion formation.

POLI 342 Politics in Canada (3)

An introduction to the institutions and processes of Canadian government. Particular attention given to the United States as a comparative point of reference. Topics include multiculturalism, constitutional reform, provincial-federal relations, national identity, the party system, the prime minister and the cabinet. Alternate years: 2018-2019, 2020-2021.

POLI 346 Russia after Communism (3)

This course examines Russian political development since 1985. Particular emphasis is on post-communist politics. Students will learn that a comprehensive study of contemporary Russian politics requires combining an examination of economic development and political culture with an understanding of how Russia's political institutions have evolved, how they are intended to function, and how they actually relate to one another. Thus, by the end of the semester, students should appreciate how difficult it is to compartmentalize political, economic, social, cultural, and historical factors. Another important theme is Russia's interaction with the Western world. Meets QuEST Non-Western requirement.

POLI 348 Politics of the United Kingdom (3)

Examines the institutional, intellectual, and sociological context of British politics. Topics considered include: political culture, party system, parliament, prime minister and cabinet, race and ethnicity, Britain and the European Union. Alternate years: 2017-2018; 2019-2020.

POLI 360 Special Topics in Politics (3)

Selected topics related to a specific area of politics including American government and normative theory.

POLI 362 Theories of International Relations (3)

A survey of theoretical approaches to international relations, including realism, theories of conflict, integration, and decision making. Examines contending normative and empirical methodologies.

POLI 370 Topics in International Relations (3)

Selected topics related specific themes in international and comparative politics.

POLI 391 Politics Practicum (1-3)

Practical experience under professional supervision, open to juniors and seniors.

POLI 392 Pre-Law Practicum (1-3)

Practical experience in a law firm under professional supervision. Open to juniors and seniors considering law school.

POLI 491 Independent Study (1-3)

Independent study or research under the supervision of an instructor.

POLI 494 Politics Seminar (3)

Serves as the capstone course for politics majors. Stresses critical discussion of influential works in 20th-century political studies.

POLI 495 Internship in Political Research (6-9)

Practical experience in politics and government obtained through placement in a state office or political organization.

POLI 497, 498 Major Honors (3, 3)

Independent research program for students who have strong academic records for a minimum of five previous semesters of collegiate study. Overall GPA of 3.5 and Department of Politics and International Relations faculty approval required for enrollment.

PSYC 099 Writing for Psychology (1)

Emphasis on the basic style, format, and process of writing in psychology as a discipline. This includes conducting a literature search, writing a literature review, and producing a scholarly paper.

PSYC 101 Introduction to Psychology (3)

Introduction to modern psychology including its major theorists and methodologies and an overview of biological, personality, learning, developmental, social, and abnormal psychology. Meets QuEST Social Sciences requirement.

PSYC 203 Educational Psychology (3)

Study of theoretical concepts and principles necessary for understanding human thought and behavior in a wide variety of educational environments. Focus on variables related to teaching-learning processes: learning, memory, transfer, problem solving, motivation, growth and development, exceptionalities, instructional planning, assessment. Emphasis on research methodologies employed by educational psychologists and interpretation of empirical research findings. Meets QuEST Social Sciences requirement. Cross-listed with EDUC 203.

PSYC 204 Cognition (3)

Survey of research and theory in the study of human information processing. The course covers the acquisition, representation, and use of knowledge with emphasis on the processes of attention, memory, language, problem solving, and decision making. Prerequisite: PSYC 101.

PSYC 209 Life Span Development (3)

A developmental approach to the study of persons from conception to death. Attention is given to the physical, emotional, social, and cognitive development of the individual as well as to theoretical and methodological issues relevant to understanding different age groups. Applications are made to the contexts relevant to various stages of development. Recommended: EDUC/PSYC 203, HDFS 101, SOAN 101, or PSYC 101. Cross-listed with HDFS 209.

PSYC 210 Child Development (3)

A developmental approach to the study of the individual from the prenatal period through late childhood. Attention given to the physical, emotional, social, and cognitive development of the child as

well as theoretical and methodological issues related to child development. Applications made to the family, peers, church, and culture. Prerequisite: IDFY 101 or IDFY 102. Cross-listed with HDFS 210.

PSYC 226 Social Psychology (3)

Introduction to the theories, methods, findings, and problems encountered in the study of people as social beings. Content areas include the self, attitudes and social cognition, conformity and obedience to authority, stereotypes and prejudice, altruism, aggression and social conflict, and applications of social psychological concepts. Prerequisite: PSYC 101 or SOAN 101. Cross-listed with SOAN 226.

PSYC 231 Psychology of Aging (3)

Study focuses on the psychological stability and change experienced by older persons. Topics include sensation and perception, intellectual functioning and learning, psychomotor skills, personality, and psychopathology as related to older persons. Students develop a relationship with an Elder Mentor for the duration of the class. Cross-listed with GERO 231.

PSYC 241 Group Dynamics (3)

Exploration of group process (including group structure and function, leadership, decision making, and problem solving) and group therapy (including intervention strategies). Learning methods will include both didactic and experiential components.

PSYC 242 Community Psychology (3)

This course focuses on person-environment interactions and the ways society impacts individual and community functioning. Community Psychology attempts to address key social issues, including poverty, substance abuse, school failure, community development, delinquency, violence, and high risk behavior in a variety of settings, including clubs, churches, schools, families, agencies, and neighborhoods. Prerequisite: PSYC/HDFS/SOAN 101. Alternate Fall semesters: 2019, 2021.

PSYC 243 Positive Psychology (3)

This course examines the scientific study of optimal human functioning. Students will learn what factors have been found to help people flourish and grow. Time will be spent helping students discover some of their own strengths and how they can be optimized. Prerequisite: PSYC/HDFS/SOAN 101. Offered intermittently.

PSYC 244 Cross-Cultural Psychology (3)

This course examines many of the common topics in psychology from an international, multicultural perspective. Students also learn what factors lead to differences in human characteristics across cultures. Prerequisite: PSYC/HDFS/SOAN 101. Offered intermittently.

PSYC 245 Forensic Psychology (3)

This course provides an understanding of the relationship between psychology and law by showing how psychological research and theory can inform the legal process. Some specific areas of study in forensic psychology include data gathering and operations (police work, investigation), legal proceedings (expert witnesses, competency and psychological assessment, jury selection), and institutionalization. Prerequisite: PSYC/HDFS/SOAN 101. Offered intermittently.

PSYC 271 Statistical Methods in Psychology (3)

This course provides a foundational background in the use and application of key statistical methods used in psychology. Students will learn to handle data and critically evaluate the appropriate statistical methods for presenting data within the field of psychology. The basic principles of probability, descriptive statistics, inferential statistics, and the use of statistical software appropriate to psychology will be taught. STAT 269 recommended.

PSYC 272 Introduction to Social Research (3)

Introduction to human inquiry including the development of hypotheses and the role of theory in hypothesis development. A survey of research design, sampling, data collection and analysis strategies. Prerequisite: {PSYC 101, HDFS 101 or SOAN 101} and {PSYC 271 or STAT 269}. Cross-listed with HDFS 272. Course fee \$10.

PSYC 311 Adolescent Development (3)

A developmental approach to the study of the adolescent. Attention given to the physical, emotional, social, and cognitive development of the adolescent as well as theoretical and methodological issues. Applications made to the family, peers, schools, the church, and the culture. Prerequisites: EDUC/PSYC 203, HDFS 101, PSYC 101, or PSYC/HDFS 272. Cross-listed with HDFS 311.

PSYC 312 Adult Development (3)

A developmental approach to the study of the early and middle adult years. Attention given to the interaction of psychological, social, and physiological aspects as well as theoretical and methodological issues related to adult development. Prerequisite: EDUC/PSYC 203, HDFS 101, PSYC 101, or PSYC/HDFS 272. Cross-listed with HDFS 312.

PSYC 319 Abnormal Psychology (3)

Study of the biological and psychosocial factors related to the development of psychopathology. Focus on various mental health disorders, with emphasis on classification based on the Diagnostic and Statistical Manual of Mental Disorders. Prerequisites: PSYC 101 or HDFS 101 and sophomore status.

PSYC 323 Counseling Theories (3)

Study of some of the various theoretical approaches to counseling, including psychoanalysis, cognitive-behavioral therapies, person-centered therapy, Behavioral therapy, and Postmodern approaches. Prerequisite: PSYC 101 or HDFS 101 and sophomore status.

PSYC 324 Personality (3)

Systematic study of the structure, organization, and determination of personality including a survey of the major contemporary personality theories. Prerequisites: PSYC 101 or HDFS 101 and sophomore status. Alternative Fall semesters: 2018, 2020.

PSYC 342 Women and Men in American Society (3)

Introduction to key topics related to gender such as identity formation, work, family, sexuality, violence, class stratification, and religious orientation. Racial and cultural issues will be treated as they affect understanding of gender. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement. Cross-listed with HDFS/SOAN 342. Spring semesters.

PSYC 350 Biological Basis of Behavior (3)

The goal of this course is to study the relationship between the physiological and psychological bases of behavior. This course emphasizes the biological basis of nervous systems disorders and

mental illnesses, the pharmacology of drug use and abuse and the neural circuitry of emotion. The course also examines the organization of the nervous system and the mechanisms of neuronal communication. Prerequisites: PSYC 101 and one of the following: BIOL 161, BIOL 185, or BIOL 258. Course fee \$10. Fall semesters.

PSYC 351 Sensation and Perception (3)

The goal of this course is to provide a detailed examination of the theories and research pertaining to various sensory and perceptual processes with an emphasis on vision. Students will participate in simulated research activities to explore and illustrate key principles and ideas. Prerequisites: PSYC 101 and one of the following: BIOL 161, BIOL 185, or BIOL 258. Spring semesters.

PSYC 365 Drug and Alcohol Addiction (3)

The goal of this course is to provide an understanding of substance abuse and its impact on individuals, families and communities. This course will emphasize the biological basis for addiction and the pharmacological effects of drugs and alcohol. The course will also examine the motivations, social implications and legal ramifications of drug use, as well as the methods and effectiveness of drug treatment and prevention. Fall semesters.

PSYC 382 Topics in Psychology (3)

Selected topics in psychology not currently included in course offerings. Possible topics may include cross-cultural psychology, psychology of religion, advanced experimental research, and moral development. May be repeated for additional credit as the topic/study changes. Prerequisite: Three credits in psychology.

PSYC 391 Psychology Practicum (1-3)

Field experience for junior and senior psychology majors wishing to clarify vocational goals. Students work under supervision of a professional for a minimum of 40 hours per credit. Ten additional hours of reading and other integrated activities per credit required. Prerequisites: Instructor's consent, Department Chair, and Internship Center.

PSYC 408 Experimental Psychology (3)

In-depth study of human behavior, the formulation of research problems and hypotheses, research design, statistical inference, decision making, and writing research reports. The experimental research process will be experienced by way of a semester-long experimental project of the student's choosing. Prerequisites: PSYC 099, nine credits in psychology, PSYC/HDFS 272, and STAT 269 or PSYC 271. Course fee \$10. Fall semesters.

PSYC 409 Psychological Testing (3)

An overview of the use of psychological tests, including intelligence, achievement, and personality testing in the assessment of individuals. This course provides practice in interpreting psychological test data from statistical and clinical perspectives, as well as technical writing skills. Emphasis on ethical issues related to psychological testing. Prerequisites: {PSYC 099 or BIOL 160}, six credits in psychology and PSYC 271. Course fee \$30.

PSYC 422 Psychology Research Experience (1-3)

Offered during the fall and spring semester for students who have taken PSYC 408 and show a strong interest in and capacity for research. Students will carry out a research program under the direction of a faculty mentor. The semester culminates with the submission of a written thesis and an oral presentation to a departmental gathering that is advertised campus wide. This course

does not fulfill departmental honors requirements. Students should register for PSYC 497/498 if they wish to complete a major honors project. Prerequisites: Completion of PSYC 408, junior or senior status, instructor's consent. A student may earn a maximum of three credits per semester with the total not exceeding five credits.

PSYC 423 Counseling Skills (3)

Introduction to and practice of basic counseling skills to create and build the therapeutic relationship with attention to affective, cognitive, behavioral, and faith components of the change process. This course is didactic, practical and experiential with emphasis on skill development and application of counseling theories. Emphasis on self-awareness, as well as cultural and ethical issues related to counseling. Prerequisite: PSYC 323.

PSYC 441 History and Systems of Psychology (3)

Study of the historical development of psychology by examining the foundations of the profession and the changes, within and outside psychology, that have influenced the current theories that dominate the field. Prerequisites: PSYC 099, PSYC 101 and junior or senior status.

PSYC 491 Independent Study (1-3)

Junior and senior students with at least a 3.0 GPA in their major may select a problem for independent investigation in a special area of psychology. Prerequisites: Instructor's and Department's consent.

PSYC 494 Psychology Seminar (3)

Discussion and analysis of the relationship between psychology and the Christian faith. Considers how Christian perspectives inform, critique, and further a professional orientation in psychology. Prerequisite: Senior status.

PSYC 497, 498 Major Honors (3, 3) Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

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RELI 205 Religions of the World (3)

An introduction to the world's major religious traditions, including primal religions, Hinduism, Buddhism, Judaism, Christianity, and Islam. In addition to examining historical and current beliefs and practices of these traditions, students will be introduced to the study of religion and Christian theological resources for reflecting on religious diversity. Meets QuEST Religion requirement.

RELI 206 Religions of the World for Majors (3) An introduction to the world's major religious traditions, including primal religions, Hinduism, Buddhism, Judaism, Christianity, and Islam. In addition to examining historical and current beliefs and practices of these traditions, students will be introduced to the study of religious and Christian theological resources for reflecting on religious diversity. Alternate to RELI 205, designed specifically for Biblical and Religious Studies majors. Meets QuEST Religion requirement.

RELI 228 Judaism (3)

A survey of Judaism as a religion, culture, and way of life. This course will examine foundational beliefs and practices within their historical and current contexts and will also discuss the rich diversity within Judaism. It will reflect on the millennia of Jewish experience within surrounding cultures, the role of the modern state of Israel in that

experience, and Jewish-Christian relations past and present. Meets QuEST Religion requirement.

RELI 229 Islam (3)

A survey of Islam as a religion, way of life, and civilization. This course will examine foundational beliefs and practices within their historical and current contexts and will also discuss the rich diversity within Islam. It will highlight the role of Islam in both local and global affairs, including perspectives on Muslim-Christian relations. Meets QuEST Religion requirement.

RELI 321 Christianity in Latin America (3)

Historical overview and contemporary survey of Christianity in Latin America. Attention will be given to the social history of the churches and to developments in theology. The Catholic Church will provide the major focus, but Protestant developments (especially Pentecostalism) will be considered. Meets QuEST Non-Western Studies requirement.

RELI 329 Christianity in Africa (3)

Historical overview and contemporary survey of Christianity in Africa (and the African Diaspora). Attention will be given both to the social history of the churches and to developments in theology. A brief introduction to African traditional religions and Islam will also be included. Meets QuEST Non-Western Studies requirement. Course fee \$10.

RELI 332 Christianity in Asia (3)

Historical overview and contemporary survey of Christianity in Asia. Attention will be given both to early developments in the Middle East and Persia and to later developments in China, India, and elsewhere. Both the social history of the churches and theology will be considered. Meets QuEST Non-Western Studies requirement.

RELI 333 Religions of India (3)

The history and development of the major Vedic traditions of the Indian subcontinent as well as smaller religious communities such as Jains and Sikhs. Special attention is drawn to the impact of historical religion on modern India. Meets QuEST Non-Western Studies requirement.

RELI 334 Religions of China and Japan (3)

Study of the history and development of the major religions of China, Tibet, and Japan. Emphasis is placed on the distinction between religions indigenous to these areas and those which were "imported." Analysis of the interaction between these two types of religions directs our attention to the influence of culture on religion and religion on culture. Meets QuEST Non-Western Studies requirement.

RELI 335 Gender and Christianity (3)

Approaches Christianity from a perspective that incorporates insights relating to gender studies in various disciplines, including theology, Bible, sociology, and history. Prerequisite: THEO 205 or 238.

RELI 342 Religious Pluralism in America (3)

Examines issues related to religious pluralism in the United States, both past and present. Topics to be considered include the breadth of religious diversity, the expanding role of various forms of spirituality in contemporary America, the notion that America is a Christian nation, and the ideals and limits of religious freedom as a legal construct and social values. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

RELI 344 History of Christianity (3)

Survey of Christianity from the time of Jesus to the present. Major developments, important turning points, and influential individuals will be highlighted. Differences and similarities between major Christian traditions (Protestant, Catholic, Orthodox, etc.) and denominational differences within Protestantism will be explored. Prerequisites: THEO 205, THEO 238, or another Christian Beliefs course.

RELI 355 Christianity in North America (3)

Historical overview and contemporary survey of Christianity in North America. Attention will be given to the theological and social history of the churches, and will also examine the roles of race, gender, ethnicity, and politics in North American Christianity. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

RELI 366 Topics in Religion

Study of a particular theme or topic pertaining to world religions, world Christianity, or the study of religion. Prerequisite: RELI 205 or RELI 206.

RELI 491 Independent Study (1-3)

Selected topics pursued independently with frequent consultation with a faculty supervisor.

RELI 497, 498 Major Honors (3, 3)

Independent research program for students who have a strong academic record (3.5 cumulative GPA) for a minimum of five previous semesters of college study. Department approval required for enrollment.

S**SERV 231 Foundations of Service, Mission, Social Change I (3)**

This course is a seminar dedicated to unpacking Western constructs of service, missions, and social change using multidisciplinary perspectives from critical theory, economics, theology, missions, and adult education. Topics include short-term missions, cross-cultural relationships, racism, Christian ministry, grant writing, and approaches to ideology critique. Students are required to do a 6-8 weeks service project through an approved mission and/or service agency during the summer and participate in SERV 232, Foundations of Service, Mission, and Social Change II (1), the following fall. Financial aid assistance for lost summer income and direct expenses is available as part of a major learning project to write a research based grant for student's proposed service project.

SERV 232 Foundations of Service, Mission, Social Change II (1)

As a continuation of SERV 231, this course focuses on reflection and analysis of the summer service-learning experiences. It is typically delivered over two weekend retreats in the fall. Pass/Fail grade only.

SERV 235 Harrisburg Service Learning (1)

This service-learning cross-cultural seminar uses Harrisburg as both text and context in which to examine complex urban realities. Through community partnership, students will learn about urban life as they navigate and explore urban multi-cultural realities. Students will take a macro view of urban dynamics through a place-based exploration of Harrisburg as well as a micro view of urban dynamics through personal civic engagement.

SOAN 101 Introduction to Sociology (3)

The study of humans in their social environment, with the goal of accumulating fundamental knowledge about human behavior, the

structure of society, and social phenomena. Included is an introduction to sociological research methods and logic of inquiry. Some sections include a community service-learning option. Meets QuEST Social Sciences requirement.

SOAN 212 Cultural Anthropology (3)

Holistic, comparative approach to the study of humankind that draws on a variety of disciplines such as archeology, linguistics, and ethnology to understand the nature of culture. Topics include cultural diversity and adaptive strategies, language, personality, marriage and kinship, religious beliefs and rituals, politics, economics, art, types of groups, social change, and issues of culture contact and cultural survival. Meets QuEST Non-Western Studies requirement.

SOAN 221 Native American Cultures (3)

Focus on indigenous peoples of the Americas, primarily those of North America; a study of diversity within Native American cultures and points of similarity; emphasis on worldviews and the central place of spirituality; attention to the richness of indigenous cultures, and the dialectical relationship with socio-economic-historical contexts; emphasis on culture decimation and resilience, and the role of revitalization movements; focus on contemporary Native American cultures manifested in primary source materials. Meets QuEST Non-Western Studies requirement.

SOAN 226 Social Psychology (3)

Study of individuals in relation to group and social influences. Emphasis on social change, social norms, conformity, attitudes, propaganda, and public opinion. Cross-listed with PSYC 226. Prerequisite: PSYC 101 or SOAN 101.

SOAN 232 Sociology of Aging (3)

Comprehensive introduction to the field of social gerontology. Special emphasis is given to the aged in the context of how older adults both affect and are affected by our society. Includes study of demography, cultural values, diversity of aging experiences, friendship and family relationships, work and retirement, living arrangements, political activity and social programs. Students engage in Elder Service Partner Program for the duration of the class. Course has a service-learning designation. Cross-listed with GERO 232.

SOAN 271 Quantitative Research Methods and Statistics (3)

A basic introduction to quantitative methods used to answer sociological questions with empirical data. Students will be introduced to topics such as the philosophy of research, research design, and hypothesis development. They will practice sampling, data collection, survey construction and will learn to evaluate research done by others. Major emphasis will be given to learning statistics most commonly used in social research including learning to use SPSS for data analysis. Students will complete a significant research project. Prerequisite: SOAN 101, SOAN 212, or CRIJ 101.

SOAN 281 Qualitative Research Methods (3)

An introduction to qualitative research methods as used by anthropologists and sociologists. Students will learn techniques that involve observation and data collection in a variety of field settings. Students will be introduced to and practice methods including participant observation, content analysis, in-depth interviewing, focus groups and case studies. Prerequisite: SOAN 101, SOAN 212, or CRIJ 101.

SOAN 305 Harrisburg Neighborhoods (3)

An experientially based introduction to city life, with special emphasis on neighborhood and other local political and social organization. Students will work on team-building and personal spiritual formation while exploring possibilities for personal roles in urban settings. Most of the learning involves ethnographic research projects in Harrisburg. Meets QuEST Social Sciences requirement.

SOAN 315 Urban Sociology (3)

Survey of the spread of global urbanization from pre-industrial times until today. Emphasis placed on understanding urban life in different cultures and societies, with analysis of urban problems and possibilities in a broad range of countries. Attention will be given to the role of the church in shaping urban cultures and vice versa. Meets QuEST Pluralism requirement.

SOAN 331 Sociocultural Theory (3)

An introduction to the history of sociocultural theories in sociology and anthropology. The course will cover both classical and contemporary theory. We will look at a number of the great classical theorists and the development of social theory through the present. Students will be introduced to important concepts in sociology and anthropology that are rooted in the work of various theorists and movements. In addition, students will be encouraged to think about the connections between social theory and world view. Prerequisite: SOAN 101 or SOAN 212.

SOAN 334 Population and Environmental Issues (3)

An introduction to the issues, both national and global, that relate to population trends, policies, and the environment. Students should leave this course with a basic understanding of demographic methods and techniques; familiarization with the three components of population studies: fertility, mortality and migration; a general knowledge of population policy issues, and a heightened awareness of the interactions between the environment and human society. Emphasis will be placed on the Christian perspective of population and environmental issues as well as the role of the church in population and environmental solutions. Meets QuEST Science, Technology, and the World requirement.

SOAN 335 Social Conflict, Justice, and Peacemaking (3)

A study of social conflict and strategies for preventing and resolving destructive conflicts. Particular attention will be given to ethical and moral perspectives on justice, conflict and conflict resolution. The course will draw on literature and perspectives from sociology, philosophical and theological ethics, and peace and conflict studies. The course will include case studies and “hands-on” exercises to develop skills for resolving personal and group conflict. Prerequisite: IDCR 151. Meets QuEST Ethics requirement.

SOAN 341 Religion and Society (3)

Analysis of religion as a social phenomenon in diverse societies and time contexts. Theories of the origin, nature, and functions of religion, including classic and contemporary approaches of its study; some considerations of the nature of socio-religious groups in the United States. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

SOAN 342 Women and Men in American Society (3)

Introduction to key topics related to gender such as identity formation, work, family, sexuality, violence, class stratification, and religious orientation. Racial and cultural issues will be treated as they

affect understanding of gender. Prerequisite: IDCR 151. Cross-listed with HDFS 342/PSYC 342. Meets QuEST Pluralism requirement.

SOAN 356 Social Inequality (3)

An examination of the origins and structure of social inequality in contemporary society with a focus on systems of economic, gender, racial, and ethnic inequality. Students will be introduced to classical and contemporary theories of inequality and will examine the roles that both culture and social institutions play in perpetuating inequality in the United States and globally. In addition, students will be introduced to historical and contemporary movements to address inequality and promote social justice. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement.

SOAN 381 Topics in Non-Western Cultures (3)

A topics course focusing on one area of the world. The course provides a survey of the cultural dimensions of the target area including attention to social, economic, political, aesthetic, and religious characteristics as well as the distinctive patterns of everyday life. Interactions among the focal cultures and other peoples will be explored in order to understand the historical factors in shaping a particular part of the world. May be repeated for additional credit as the topic/study changes. Meets QuEST Non-Western requirement.

SOAN 382 Topics in Sociology and Anthropology (3)

Selected topics in anthropology not currently included in course offerings. Possible topics may include the study of ethnographies on a variety of cultures, urban anthropology, anthropology of religion, comparative family studies, and others. May be repeated for credit. Prerequisite: Three credits in anthropology.

SOAN 384 Families in America (3)

A sociocultural study of family/household variations in the Americas; special emphasis on the cultural and ethnic diversity and the adaptability of family/household forms to changing environmental contexts; historical and cross-cultural perspectives. Prerequisite: IDCR 151. Meets QuEST Pluralism requirement. Cross-listed with HDFS 384.

SOAN 391 Sociology and Anthropology Practicum (1-3)

Field experience for junior and senior sociology majors wishing to clarify vocational goals. Students work under professional supervision for a minimum of 40 hours per credit. Ten additional hours of reading and other integrative activities per credit required. Prerequisite: Instructor's consent, Department Chair, and Career and Professional Development Center.

SOAN 442 Senior Thesis (3)

Senior students in the Sociology/Anthropology major complete a research-based thesis that synthesizes method, theory, and a topic from the major. This major capstone course includes integration of Christian perspectives with the philosophical and ethical issues of sociology and anthropology. Students will articulate how faith connects to potential career and vocational options. Fall Semester. Prerequisites: [SOAN 271 or SOAN 281] and SOAN 331.

SOAN 491 Independent Study (1-3)

Junior and senior students with at least a 3.0 GPA in their major may select a problem for independent investigation in a special area of sociology. Prerequisites: Instructor's consent and Department Chair.

SOAN 497, 498 Major Honors (3, 3) Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

SOWK 099 Professionalism in Social Work (1)

The course provides foundational information for being a professional, ethical and competent social worker including understanding professional behavior, faith and practice issues, social work competencies, and the purpose of the Code of Ethics. Additionally, the course will focus on discipline specific writing expectations including use of the APA style guide. Students review the program handbook and learn the admittance and progression requirements for the Social Work major. Fall semesters.

SOWK 120 Introduction to Social Work (3)

This course explores the history and values of Social Work as a profession and social welfare as an institution, both of which have grown from our common human needs and social problems in modern, industrial society. The course requires discussion of different practice areas of social work, such as mental health, child welfare, poverty, aging and education, and begins to help students develop an understanding of service delivery systems through discussion of values, ethics, and fields of practice. A philosophical, theoretical, and historical framework for Social Work and social welfare will be developed focusing on populations at risk and the promotion of social and economic justice. Course has a 16-hour volunteer experience within a social service type agency requirement. Meets QuEST Social Sciences requirement.

SOWK 221 Human Behavior in the Social Environment (3)

This course provides the student with a framework for examining the person as a bio-psycho-social-spiritual-cultural being and for studying the processes by which human development occurs throughout the life cycle. There will be an exploration of the dynamic interrelationships between biological, psychological, spiritual, and environmental factors that come into play when assessing individuals within a social framework. Content will utilize current research and empirically based theories to focus on the interactions of individuals, groups, society, and economic systems. Course has a 16-hour volunteer experience within a social service type agency requirement.

SOWK 250 Social Work Practice with Individuals (3)

This is the first course offered in the practice series and is designed to introduce students to the philosophy and characteristics of helping relationships within the generalist framework in Social Work. It introduces basic relationship building, communication, social work principles and values, critical thinking and problem solving skills for use with any client system (individual, family, group, organization, community), but has a primary focus on working with individuals within a social context. A one-day per week practicum experience (SOWK 251) runs concurrent with course work and offers an opportunity for students to begin understanding, evaluating, and assessing practice. Limited to Social Work majors. Prerequisites: SOWK 120 and SOWK 221.

SOWK 251 Field Experience: Social Work Practice with Individuals (1) A one-day per week practicum experience runs concurrent with course work and offers an opportunity for students to begin understanding, evaluating, and assessing practice. Limited to Social Work majors. Prerequisites: SOWK 120 and SOWK 221. Co-requisite: Field Experience: must be taken with SOWK 250.

SOWK 356 Engaging Diversity and Inequality (3)

This course will provide students with an understanding of the social and historical contexts and the mechanisms which perpetuate prejudice, discrimination, and inequality in the United States and globally. This course prepares students to contemplate issues of advocacy in efforts to promote human rights, social justice, and economic justice with individuals, social systems, and structures. Topics will include race, gender, class, culture, religion, disabilities, sexual orientation, and other areas of marginalization. Prerequisite: IDCR 151.

SOWK 360 Social Work Practice with Families (3)

This course is the second offered in the practice series and will begin to develop specific helping skills for generalist Social Work practice. Topics will include the problem-solving model, and will develop interviewing, assessment, treatment planning and evaluation skills. Family developmental issues will be addressed. A primary focus of this course will be the development of a knowledge base and the skills necessary to provide Social Work intervention with families at risk. A one-day per week practicum experience (SOWK 361) runs concurrent with course work. Limited to Social Work majors. Prerequisite: SOWK 250.

SOWK 361 Field Experience: Social Work Practice with Families (1)

A one-day per week practicum experience runs concurrent with course work. Limited to Social Work majors. Prerequisite: SOWK 250. Co-requisite: Field Experience must be taken with SOWK 360.

SOWK 372 Social Work Practice with Groups (4)

This is the third class in a series of practice courses in Social Work. The course examines the dynamics of the small group. Various theoretical conceptualizations of the role of the Social Worker in the group are discussed. Concepts such as group dynamics, norms, and roles are examined. Group leadership skills for planning, facilitating, and evaluating groups will be developed and practiced. Content will include identifying and implementing group related empirically based interventions and services designed to achieve client and community goals. There is also a focus on the interplay between Social Work and community groups. Limited to Social Work majors. Prerequisite: SOWK 360.

SOWK 382 Topics in Social Work (3)

Selected topics in social work not extensively covered in other required courses that are designed to assist students in competency development across treatment areas.

SOWK 385 Introduction to Research in Social Work (3)

This course explores the philosophy, concepts, principles, and methods of empirical research in Social Work. Characteristic stages and formats of social research are reviewed, with the primary aim of developing beginning competence in the critical assessment of published research and the use of research methods in the field of Social Work. Emphasis will be on the development of an understanding of a scientific, analytic, and ethical approach to building knowledge for practice. Both quantitative and qualitative methods will be presented. There will also be a focus on developing a student's ability to use research methods for the purposes of evaluation in Social Work practice, programs, and policies. This course should be taken in the junior or senior year. Prerequisite: STAT 269.

SOWK 420 Social Welfare Policy and Social Change (3)

This course will introduce students to the arena of social policy and to the sociopolitical environment in which policy takes place. Students will develop a capacity to examine and critically analyze social welfare policy within historical and societal contexts. Selected areas of policy will be examined using theoretical and analytical principles. The course will focus on the implementation of advocacy strategies to combat discrimination, to promote social and economic justice, and will empower students to be agents of social change in the United States and abroad.

SOWK 475 Social Work Practice with Communities and Organizations (3)

This course is the fourth class offered in the practice series and an integral part of generalist social work practice. It is designed to develop the skills and abilities of students to practice macro social work. The primary focus is on the interrelationships between the environment, agency structures and general service delivery systems. Students develop specific community organizing and networking skills. A strong component of this course focuses on program evaluation, community assessment and intervention. Limited to Social Work Majors. Prerequisite: SOWK 360. Co-requisite: SOWK 476.

SOWK 476 Field Experience: Social Work Practice with Communities and Organizations (1)

This is the fourth field course offered in the practice series and is designed to introduce students to the philosophy and characteristics of applied macro practice within the generalist framework in Social Work. This 1 credit practicum experience offers an opportunity for students to begin developing, implementing and assessing macro social work practice within community and organizational contexts. Limited to Social Work majors. Co-requisite: SOWK 475.

SOWK 484 Preparation for Field Practice (1)

This course is designed to prepare students for entering their senior year field practice experience. Student and agency expectations will be discussed regarding objectives, procedures, roles and responsibilities as well as relevant practice issues such as record keeping, stress management, and use of supervision in practice. Practical information regarding agency placements will be reviewed. Final coordination and student interviews with prospective placement will occur during this course. J-term. Prerequisites: Completion of all degree requirements except SOWK 485 and SOWK 490.

SOWK 485 Seminar in Social Work Practice (3)

This course focuses on the knowledge, principles and skills of social work services. Emphasis is placed on generalist social work practice and utilizing a strength perspective in service delivery. Focus will be on the integration of models of service delivery with different client systems. Course will incorporate the values of the profession and analyze ethical dilemmas and the ways which they affect practice, services and clients. Spring term. Prerequisites: Completion of all degree requirements. Runs concurrently with SOWK 490.

SOWK 490 Field Practice in Social Work (12)

This course provides specific Social Work service delivery in selected social welfare and related agencies. Students will receive a minimum of four hundred hours of practice experience. Opportunities will be provided to connect social work theory with practice and to develop social work skills with various client systems within an agency context utilizing theory based practice knowledge. Prerequisites: Completion of all degree requirements. Runs concurrently with SOWK 485.

SOWK 491 Independent Study (1-3)

Junior and senior students with at least a 3.0 GPA in their major may select a problem for independent investigation in a special area of Social Work. Prerequisite: Instructor's consent and Department Chair.

SOWK 497, 498 Major Honors (3, 3)

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

SPAN 101, 102 Fundamentals of Spanish I, II (3, 3)

Intensive study of the fundamentals of Spanish grammar within a communicative approach to language learning. Introduction to Hispanic culture. Meets QuEST Language requirement.

SPAN 201 Intermediate Spanish (3)

Continuation of grammar principles with practical application in conversation. Introduction to composition through selected cultural and literary readings. Prerequisite: SPAN 102 or the equivalent. Meets QuEST Language requirement.

SPAN 206 Spanish Conversation and Composition (3)

Advanced practice in oral and written Spanish based on everyday situations. Study of Hispanic culture through selected readings. Prerequisite: SPAN 201 or the equivalent.

SPAN 211 Spanish Theatre Production (3)

Students in this experiential course form part of an ensemble that will produce a short Spanish language play. Prerequisite: SPAN 206 or high intermediate proficiency. Participation by audition.

SPAN 221 Business Spanish (3)

Introduction to the Spanish of commerce and international business as well as the art of negotiation in the Spanish-speaking world. Emphasis on oral and written communication, including basic commercial practices, terminology, and documents. Prerequisite: SPAN 206 or the equivalent.

SPAN 301 Topics in Latin American Literature (3)

Selected literary works from contemporary authors and genres. Prerequisite: SPAN 206 or the equivalent. Meets QuEST Literature requirement.

SPAN 302 Culture and Identity in Latin America (3)

Survey of Spanish American culture and civilization from pre-Columbian civilizations to the present. Prerequisite: SPAN 206 or the equivalent. Meets QuEST Non-Western Studies requirement.

SPAN 305 Latin American Plays of Protest (3)

Contemporary drama that addresses issues of social justice as well as sociopolitical tensions and how they affect the lives of ordinary people of multiple Latin American nations. Prerequisite: SPAN 206 or the equivalent. Meets QuEST Non-Western requirement.

SPAN 306 Contemporary Mexico (3)

An exploration of Mexican society and culture through the examination of topics such as social class, education, urbanization, religious faith and expression, indigenous and national identity, the family, and economic development. Some attention will also be given to U.S.-Mexican relations and border issues. Prerequisite: SPAN 206 or the equivalent.

SPAN 311 Topics in Spanish Peninsular Literature (3)

A formal and cultural analysis of selected literary movements, authors, and themes of Spanish Peninsular literature. Development of a critical and analytical capacity and sensitivity toward literary language through the reading of a selection of poetic, dramatic, or narrative works. Prerequisite: SPAN 206 or the equivalent. Meets QuEST Literature requirement.

SPAN 312 Topics in Spanish Peninsular Culture (3)

A study of various topics in Spanish culture that shaped or represented national, regional, and European identities in Spain. Topics may include the political, religious, literary, and artistic expression in Spain during the Arab occupation, the reconquest and unification, the colonization of the Americas, the Habsburg and Bourbon dynasties, the crisis of 1898, the dictatorship of Primo de Rivera, the Civil War, the Franco regime, and post-Franco Spain. Prerequisite: SPAN 206 or the equivalent.

SPAN 314 The Counter Reformation and the Spanish Baroque (3)

The artistic, political, and religious expression of the Spanish Baroque. Selected works of Góngora, Quevedo, Calderón, the Spanish mystics, including Santa Teresa de Jesús and San Juan de la Cruz, and painters such as Murillo, Velázquez, Zurbarán and others. The decline of the Habsburgs, the Council of Trent, and the role of the Catholic Church in Spanish society of the Baroque period. Meets QuEST Literature requirement. Prerequisite: SPAN 206.

SPAN 320 Spanish Linguistics (3)

A linguistic study of Spanish, to include its morphology, syntax, and contemporary dialectal variations. Concepts from general and descriptive linguistics will be introduced to allow exploration of the subject matter in Spanish.

SPAN 322 Applied Phonetics (3)

An examination of the Spanish articulatory system including an introduction of pertinent theoretical concepts in phonetics and phonology and the application of these concepts in various exercises of written transcription and oral production. Class discussion may also address issues related to regional variation and Hispanic dialectology. Prerequisite: SPAN 206 or the equivalent.

SPAN 324 Contrastive Linguistics (3)

A comparison of English and Spanish, with an emphasis on contrasting both languages at the levels of morphology, syntax, and semantics as well as developing the skills necessary to compare (and contrast) the native language with a foreign language and the ability to use metalanguage to account for the similarities and differences. Prerequisite: SPAN 206 or the equivalent.

SPAN 331 Trans-Atlantic Literature (3)

A study of the role that the written word played in building a transatlantic literary culture that linked the Spanish peninsula to the American colonies: the ways in which Spain shaped the literature of its colonies, and how the discovery shaped Spanish readers' understandings of the world and their place in it. Beginning with travel accounts and letters from America, students will explore the ways in which these reports depict and construct the image of the American other, the African slave, and the Spanish colonizer—particularly the role of intellectuals in the development of a circum-Atlantic identity. Meets QuEST Literature requirement. Prerequisite: SPAN 206 or the equivalent.

SPAN 360 Topics In Spanish (3)

An examination of specific topics of the Spanish-speaking world.

SPAN 491 Independent Study (1-3)

Advanced Hispanic language/culture study or research.

SPMT 110 Sport Management Careers and Content (1)

This course is an introduction to the field of sport management and will be completed by first-year students during the fall semester. Career options and managerial content will be reviewed. Foundational studies of sport, including history, philosophy, and professional skills will be discussed as they relate to the field of sport management. Fall semesters.

SPMT 210 Ethics and Law in Sport Management (3) This course integrates the ethical strategies of sport management along with the demonstration of how constitutional law, contract law, tort law, labor and anti-trust law, and discrimination apply to the sport management industry. Alternate Fall semesters: 2017, 2019.

SPMT 211 Economics and Governance in Sport (3)

The primary goal of this course is to provide students interested in pursuing a career in the sport management field with a basic knowledge and understanding of the principles, processes and strategies related to economics/finances and governance of operating organizations whose mission involves the provision of sport related services and/or products. The principles of economics/finances will be utilized to evaluate amateur and professional sports, including topics like league structure, team decision making, labor relations, incentive structures, free agency, salary caps, and stadium financing and the role of public policy. Macro and micro perspectives of governance and policy in sport organizations will be initiated to examine organizational structures, authority, sanctions, appeals processes, and the influence of governmental bodies and sports commissions on sport governing bodies. Alternate Spring terms: 2018, 2020.

SPMT 313 Sport Facility and Event Management (3) This course is designed to assist the sport management student in acquiring the necessary knowledge and skills needed to manage a sport facility and to plan a sporting event. Alternate Fall semesters: 2018, 2020.

SPMT 314 Sponsorship and Marketing in Sport Management (3)

Sport sponsorship and marketing is designed to apply marketing principles to the area of sport, sport events, and sport products. Sponsorship and marketing strategies including sales, promotions, and advertising of sport will be emphasized. Alternate Spring terms: 2019, 2021.

SPMT 391 Sport Management Practicum (3)

This course provides the prospective sports manager with practical training and experience involving progressive learning in specific areas of interest. The student and advisor jointly select an approved site and plan the practical experience. Potential sites include, but not limited to, sport facilities, professional sports, television stations, and the commercial sports industry. Progressive and summary reports and regular meetings with the faculty sponsor and field supervisor are required. The student is evaluated by the faculty supervisor and the field supervisor. Prerequisite of junior or senior level status in the major.

SPMT 410 Topics in Sport Management (2)

In-depth investigation and development of an area of current sport management interest. Alternate Spring terms: 2019, 2021.

SPMT 411 Senior Seminar for Sport Management (3)

Serves as a capstone course for Sport Management majors. Stresses reading current literature, discussing critical ideas, and formulating the relationship between Christian faith and the sport management profession. Spring term.

SPMT 497, 498 Majors Honors (3,3)

Independent research program for students who have a strong academic record for a minimum of five previous semesters of college study. Overall GPA of 3.5 and departmental approval required for enrollment.

STAT 269 Introductory Statistics (3)

Descriptive measures, normal distributions, one-sample and two-sample hypothesis testing and estimation, correlation, and analysis of variance. Meets QuEST Mathematical Sciences requirement.

STAT 281 Applied Statistics for Management (3)

Topics in probability and statistics: descriptive measures, distributions, one-sample estimation and hypothesis testing, correlation, simple linear regression and categorical data. Prerequisite: MATH 107, 108, or 111.

STAT 291 Statistics for Mathematical Sciences I (3)

Topics in probability and statistics: descriptive methods, conditional and unconditional probability, discrete and continuous distributions, one-sample estimation and hypothesis testing. Prerequisite: a grade of C- or better in MATH 108, MATH 111 or equivalent. Fall semesters.

STAT 292 Statistics for Mathematical Sciences II (3)

Further topics in probability and statistics: two-sample estimation and hypothesis testing, analysis of variance, categorical data, simple and multiple regression, and nonparametric techniques. Prerequisite: STAT 291. Spring term.

STAT 324 Advanced Statistical Methods (3)

Analysis of covariance: multivariate analysis of variance, discriminant analysis, stepwise regression, logistic regression, factor analysis, and an introduction to SAS[®]. Prerequisite: STAT 292. Alternate Spring term 2018, then alternate Fall semesters, 2019, 2021.

STAT 325 Experimental Design (3)

Experimental designs and analyses for a variety of problems: completely randomized, randomized complete block, Latin square, completely randomized with factorial treatments, unbalanced and/or incomplete, random effects, mixed effects, nested; multiple comparisons; introduction to SAS[®]. Prerequisite: STAT 292. Alternate Spring terms: 2017, 2019.

STAT 331 Nonparametric Statistical Methods (3)

An introduction to Nonparametric statistical analysis including estimation and hypothesis testing. Key terminology in the discipline is explained. This course covers methods such as dichotomous data, one-, two-, and k-sample problems, and independence tests. Throughout the course, the efficiencies of various methods are considered, as well as the assumptions required. Connections across settings are highlighted. While this course is intended to fill the requirements of the Statistics minors and Mathematics majors, it may also be of interest to others with basic statistical understanding who

would like to explore analysis of non-normal data, especially with smaller sample sizes. Prerequisites: One of the following: STAT 269, 281 or 291. Alternate Fall semesters: 2018, 2020.

STAT 345 Time Series Analysis (3)

A review and expansion of Regression Analysis skills from STAT 292 and an introduction to Time Series Analysis and Forecasting. Topics include a review of simple linear regression, multiple regression, testing and confidence intervals in regression, model building and verification, linear time series models, moving average and ARIMA models, estimation and analysis with time series models, and forecast errors and confidence intervals. Includes the use of computer software. Prerequisite: STAT 292. Alternate Spring terms: 2020, 2022.

STAT 346 Statistical Methods in Operations Research (3)

Linear programming, simplex method, project management with PERT/CPM, deterministic dynamic programming, probabilistic dynamic programming, integer programming, queuing theory, introduction to SAS[®]. Prerequisite: STAT 291.

STAT 407 Introductory Mathematical Statistics (3)

Mathematical theory underlying probability, statistical estimation, and hypothesis testing: random variables and their distributions, distributions of functions of random variables, sampling distributions, limiting distributions, and the Central Limit Theorem. Prerequisites: MATH 211 and STAT 291. Alternate Fall semesters: 2017, 2019.

STAT 491 Independent Study (1-3)

Investigation and application of advanced statistical concepts.

SUST 140 Ecology and Sustainability (3)

This course is designed to give students an introductory understanding of how ecological systems and ecological principles apply to natural ecosystems and the human interface with those systems. It will discuss ecological sustainability, economic sustainability, and social sustainability. It will include topics such as global biogeochemical cycles, the hydrologic cycle, the carbon cycle, trophic levels in ecosystems, competition, predation, parasitism, mutualism, population dynamics, agriculture, forestry and biodiversity. Two lectures and three hours of laboratory per week. Meets QuEST Laboratory Science requirement. Does not meet Department of Biological Sciences major requirement. Cross-listed with BIOL 140. Course fee \$65. Fall semester only.

SUST 495 Sustainability Capstone (3)

This course is a problem solving seminar reviewing the philosophical underpinnings of sustainable development and extending them by solving problems. Students will explore the fundamental assumptions of sustainability; call upon the skills learned in their specific tracks of study and work together as an integrative team to vocationally address an unsustainable situation in a specific geographic location. Course will include exploration of sustainability studies as a Christian vocation, explicit focus on project management, work tracked in increments relative to goals, and development of portfolios for each participant for use in seeking future employment. Course is intended for Seniors. Spring term. Prerequisite: BIOL/SUST 140, BIOL 216, or 274.

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TEP 210 Sophomore Field Experience (0)

Students in this course will conduct observations in an urban and a rural or suburban school. They will observe in multiple classrooms to ensure exposure to varied grade levels, classroom types, and subject areas (including music, art, and HPE). Students will spend 40 hours in the field. Related course assignments will be made in EDSP 207 Introduction to Special Education and EDUC 203/PSYC 203 Educational Psychology. Prerequisite: Required security clearances on file. Co-requisites: EDSP 207 and EDUC 203.

TEP 310 Junior Field Experience (0)

Junior-level field experience for secondary and K-12 teacher certification students which provides opportunity for observation and practice in elementary or secondary school settings as appropriate to the certification. Students are expected to connect theoretical ideas acquired in prerequisite and co-requisite courses with actions and decision-making processes associated with effective teaching. Focus on instructional planning and assessment. Prerequisite: Admission to the Teacher Education Program. Co-requisites: {EDSP 307 or HPED 332} and one of the following: {ART 331, EDUC 331, MUED 301 or MUED 401}. Pass/Fail grade.

TEP 312 Field Experience II in PreK-Grade 2 (0)

Students are actively engaged in the teaching and learning process for approximately 80 hours in a PreK-grade 2 classroom. Students complete assignments from concurrent courses including using PA academic standards and anchors in literacy and math for instructional planning, implementation, and assessment. They create and modify lessons and assessments as needed for students with special needs who are included in their classroom. Prerequisite: Admission to the Teacher Education Program and co-requisites: EDUC 301, 303, 330 and EDSP 307. Fall semesters.

TEP 314 Field Experience III in Grade 2-Grade 4 (0)

Students are actively engaged in the teaching and learning process for approximately 80 hours in a grade 2-4 classroom. Students complete assignments from concurrent courses including using PA academic standards and anchors in literacy and math, science, and social studies for instructional planning, implementation, and assessment. They create and modify lessons and assessments as needed for students with special needs who are included in their classroom. Students use assessment data to inform their classroom decision-making. Prerequisite: Admission to the Teacher Education Program and co-requisites: EDUC 302, 304, 342, 347. Spring term.

TEP 316 Field Experience II in Grades 6-8 (0)

Students are actively engaged in the teaching and learning process for approximately 80 hours in a middle school classroom. Students complete assignments from concurrent courses including using PA academic standards and anchors in literacy and math for instructional planning, implementation, and assessment. They create and modify lessons and assessments as needed for students with special needs who are included in their classroom. Since students take Middle Level Education (EDUC 305) concurrently, they also explore elements of middle school philosophy and the intersection of quality middle schools with the unique needs of young adolescents. Prerequisite: Admission to the Teacher Education Program. Co-requisites: EDUC 305, EDUC 331, EDSP 307. Fall semesters.

TEP 318 Field Experience III in Grades 4-5 (0)

Students are actively engaged in the teaching and learning process for approximately 80 hours in a grade 4-5 classroom. Students complete assignments from concurrent courses including using PA academic standards and anchors in literacy and math, science, and social studies for instructional planning, implementation, and assessment. They create and modify lessons and assessments as needed for students with special needs who are included in their classroom. Students use assessment data to inform their classroom decision-making. Prerequisite: Admission to the Teacher Education Program. Co-requisites: EDUC 302, EDUC 304, EDUC 342 and EDUC 347. Spring term.

TEP 393 Teaching Practicum (1-3)

Teaching-related experiences in classrooms and/or non-traditional setting which provide 1) opportunities for enhancing personal and/or professional skills, 2) acquisition and/or application of content knowledge and pedagogic experiences, 3) exploration of additional career opportunities available to teachers, 4) integration of theory and practice in varied settings with diverse audiences. Credit award is based on length and intensity of involvement as well as the number and depth of learning objectives/outcomes to be accomplished. Prerequisite: Admission to the Teacher Education Program. Pass/Fail grade.

TEP 410 Secondary Pre-Student Teaching Experience (0)

Senior-level field experience in a secondary school context which provides opportunity for observation, reflection, and practice. Students will have opportunities to examine the whole school context through interactions with building-level administrators, school counselors, special educators, classroom teachers, and other professionals and para-professionals. Students will also spend time in certification area specific school settings. Students are expected to connect theoretical ideas acquired in prerequisite and co-requisite courses with actions and decision-making processes associated with effective teaching. Focus on establishing positive classroom climate, developing instructional plans and assessment, and professional interactions with other educators in preparation for the student teaching experience. Prerequisite: Approval for the Professional Semester. Co-requisite: TEP 435 or TEP 439. Pass/Fail grade.

TEP 411 Pre-Student Teaching Experience in HPE (0)

Senior-level field experience in a Health and Physical Education context which provides opportunity for observation, reflection, and practice. Students will have opportunities to examine the whole school context through interactions with building-level administrators, school counselors, special educators, classroom teachers, and other professionals and para-professionals. Students will also spend time in certification area specific school settings. Students are expected to connect theoretical ideas acquired in prerequisite and co-requisite courses with actions and decision-making processes associated with effective teaching. Focus on establishing positive classroom climate, developing instructional plans and assessment, and professional interactions with other educators in preparation for the student teaching experience. Prerequisite: Approval for the Professional Semester. Co-requisites: {TEP 431 or TEP 439} and HPED 407. Pass/Fail grade.

TEP 412 Pre-Student Teaching Experience in Art (0)

Senior-level field experience in an Art Education context which provides opportunity for observation, reflection, and practice. Students will have opportunities to examine the whole school context through interactions with building-level administrators, school

counselors, special educators, classroom teachers, and other professionals and para-professionals. Students will also spend time in certification area specific school settings. Students are expected to connect theoretical ideas acquired in prerequisite and co-requisite courses with actions and decision-making processes associated with effective teaching. Focus on establishing positive classroom climate, developing instructional plans and assessment, and professional interactions with other educators in preparation for the student teaching experience. Prerequisite: Approval for the Professional Semester. Co-requisites: ART 407 and {TEP 437 or TEP 439}. Pass/Fail grade.

TEP 413 Pre-Student Teaching Experience in Music (0)

Senior-level field experience in a Music Education context which provides opportunity for observation, reflection, and practice. Students will have opportunities to examine the whole school context through interactions with building-level administrators, school counselors, special educators, classroom teachers, and other professionals and para-professionals. Students will also spend time in certification area specific school settings. Students are expected to connect theoretical ideas acquired in prerequisite and co-requisite courses with actions and decision-making processes associated with effective teaching. Focus on establishing positive classroom climate, developing instructional plans and assessment, and professional interactions with other educators in preparation for the student teaching experience. Prerequisite: Approval for the Professional Semester. Co-requisites: MUED 407, TEP 412 and {TEP 438 or TEP 439}. Pass/Fail grade.

TEP 420 Special Education Internship (0)

Students in this course spend a minimum of 80 hours in a special education classroom setting. In this placement, students design and deliver instruction and assessment. Students also use data to inform instructional decisions. Prerequisite: Approval for the Professional Semester and EDSP 307, EDSP 397. Co-requisites: EDSP 398, EDSP 399, EDUC 414, and EDUC 415. Pre- or concurrent enrollment in EDSP 409.

TEP 425 Dual Certification Internship (3-9)

Provides supervised, site-based experience beyond the primary Professional Semester/ student teaching for students pursuing dual certification. Students design and deliver instruction, acquire professional skills and experiences, and perform teaching roles and responsibilities appropriate for the second area of certification. Students must declare and plan for the internship at the time that they apply to the Professional Semester. Prerequisite: Acceptance in the Professional Semester. Pass/Fail grade.

TEP 431 Student Teaching: Health and Physical Education (9)

Observation and participation in teaching elementary, and middle or high school health and physical education under the supervision of College faculty and experienced cooperating teachers in nearby schools. Prerequisite: Approval for the Professional Semester. Co-requisites: TEP 411 and HPED 407. Pass/Fail grade.

TEP 432 Student Teaching: PreK-4 and Special Education (9)

Participation in teaching under the supervision of College faculty and experienced cooperating teachers in public schools. One-half of the experience will be supervised by a cooperating teacher certified in special education who provides special education services. The other half will be supervised by a cooperating teacher certified in regular education who teaches in a regular education classroom.

Prerequisite: Approval for the Professional Semester. Co-requisites: EDUC 407, EDUC 420 and EDUC 430. Pass/Fail grade. Course fee \$75.

TEP 433 Student Teaching: Grades 4-8 (9)

Participation in teaching under the supervision of College faculty and experienced cooperating teachers in public schools. Prerequisite: Approval for the Professional Semester. Co-requisites: HDFS/PSYC 311, EDUC 407 and EDUC 420. (Pass/Fail grade only.) Course fee \$75.

TEP 434 Student Teaching: PreK-4 (9)

Participation in teaching under the supervision of College faculty and experienced cooperating teachers in public schools. Prerequisite: Approval for the Professional Semester. Co-requisites: EDUC 407, EDUC 420 and EDUC 430. Course fee \$75.

TEP 435 Student Teaching: Secondary (9)

Participation in teaching in the area of certification under the supervision of College faculty and experienced cooperating teachers in public schools. Prerequisite: Approval for the Professional Semester. Co-requisites: EDUC 420, PSYC/HDFS 311, TEP 410 and one of the following {ENGL 407, HDFS 407, HIST 407, LANG 407, MATH 407, PHYS 407, or BIOL/CHEM 407}. Pass/Fail grade. Course fee \$75.

TEP 437 Student Teaching: Art (9)

Practical experience in instructional planning and teaching art under the supervision of College faculty and experienced cooperating teachers in public schools. Includes both elementary and secondary levels. One semester (12 weeks) as assigned. Prerequisite: Approval for the Professional Semester. Co-requisites: ART 407, TEP 412. Spring term. Pass/Fail grade. Course fee \$75.

TEP 438 Student Teaching: Music (9)

Practical experience in teaching under supervision of College faculty and experienced cooperating teachers in public schools. Placement is made in student's area of emphasis: vocal or instrumental. One semester (12 weeks) as assigned. Prerequisite: Approval for the Professional Semester. Co-requisites: MUED 407, TEP 413. Spring term. Pass/Fail grade. Course fee \$75.

TEP 439 Student Teaching: Domestic and International (9)

Participation in teaching under the supervision of College faculty and experienced cooperating teachers and supervisors. A minimum of seven weeks completed in a Pennsylvania school and a minimum of six weeks completed in a school outside of the United States. Prerequisite: Approval for the Professional Semester. Co-requisites: One of the following {EDUC 407, ENGL 407, HDFS 407, HIST 407, LANG 407, MATH 407, BIOL/CHEM 407, HPED 407 or PHYS 407}. Course fee \$225.

THEA 110 Introduction to Theatre (3)

A survey of the theatre as a humanizing art. Students are introduced to historical and cultural influences, dramatic theory, staging styles and techniques, and major movements in dramatic writing. Analytical readings of play texts are supplemented by viewings of live and recorded performance. In addition to play analysis, students are introduced to the production process through workshops and guest lectures on the role of the actor, director, producer, and stage manager as well as the costume, lighting, set, and sound designer in current departmental and local productions. Meets QuEST Arts requirement.

THEA 115 Production Practicum (1)**THEA 120 Acting I (3)**

This foundational course introduces the student to the craft of acting and the various way in which the actor's art has been conceived from the ancient Greeks to the present, including the creative process, approaches to rehearsal, collaboration, vocal and physical agility, improvisation, script analysis, scene study, characterization and audition techniques. Introduction to the Stanislavsky technique. Meets QuEST Arts requirement.

THEA 150 Introduction to Technical Theatre and Design (3)

An introduction to the backstage arts and technology of theatrical production, designed to give the student a broad understanding of the history and development of theatre crafts, as well as an understanding of the basic principles and technical procedures used in the design and execution of scenery, costumes, lighting, and sound. Meets QuEST Arts requirement.

THEA 223 Acting II (3) This course continues the actor's development of vocal and physical agility through the application of twentieth and twenty-first century acting techniques which are either faithful to Stanislavski thought or deviate from it. Modern acting theory and techniques are explored through scenes and monologues. Prerequisite: THEA 120. Spring terms.

THEA 230 Directing I: Fundamentals of Play Directing (3)

Basic elements of directing, with laboratory work in theatrical problems and short scenes. Readings and discussions on directing theory. Prerequisite: THEA 120. Alternate Spring terms: 2017, 2019.

THEA 240 Survey of Dramatic Literature and Criticism (3)

Considers the development of dramatic literature, theory, and criticism from the Antiquity to postmodernism. Students interact with the ideas of seminal theorists and apply them through a variety of play scripts and productions.

THEA 250 Stage Management (3)

Introduction and application of basic principles of stage management, with emphasis on the paperwork and procedures required in theatrical productions. Considers other forms of performance which utilize a stage manager such as opera, dance, and touring productions. Prerequisite: THEA 150.

THEA 260 Musical Theatre (3) Introduction to the theory and practice of musical theatre production. Includes preparing and performing a musical. Cross-listed with MUSI 271.

THEA 261 Theatre for Young Audiences (3)

Introduction to the theory and practice of theatre for young audiences. Includes preparing and performing a play for children.

THEA 323 Acting III (3)

This course continues the actor's development of vocal and physical agility, range, and expression through the application of twentieth and twenty-first century acting techniques and theorists as well as the introduction of period style. Prerequisite: THEA 223. Fall semesters.

THEA 325 Acting Techniques for Musical Theatre (3)

Study and performance of scenes, duets, trios, and ensembles from the Musical Theatre repertoire. Topics include the structure of sung theatre, exercises, the synthesis of music, text and score, and the relationship between character, music and sound.

THEA 330 Directing II (3)

This course explores specialized issues in the craft of contemporary Play Direction including race, gender, postmodernism, period style and various genres including avant garde, epic theatre and absurdism. Students research and analyze how specific contemporary issues influence and shape the techniques of forming the Directorial Concept, production process, communication with designers, and actor coaching. Students complete script analysis projects, mock rehearsal assignments, scene projects, and complete the direction of a short one-act play for public performance. Prerequisites: THEA 230. Spring term.

THEA 340 History of Theatre I: Antiquity to Renaissance (3)

This survey course considers evidence of the theatrical past including theatre architecture, production values, acting and directing styles, and the political and social movements that informed these traditions. Through selected readings, discussion, projects, and multimedia, students consider seminal moments in the development of the theatre from its conjectured origins in ancient Greece and Rome to the European Renaissance.

THEA 341 History of Theatre II: Renaissance to Postmodernism (3)

A continuation of THEA 340. Considers the politics of historiography and the implications of cultural theory in shaping our own contemporary "readings" of the theatrical past.

THEA 350 Scenographic Techniques (3)

Exploration and application of graphic fundamentals for use in theatrical design. Emphasis on two dimensional forms of communication such as drafting, costume rendering, and mechanical perspective. Prerequisite: THEA 150.

THEA 360 Topics in Theatre (1-3)

Selected topics in theatre not currently included in course offerings. Topics may include performance styles and techniques; studies of articular periods, movements, or innovators in theatre history, theory, dramatic criticism, and literature; technical production and design.

THEA 361 Creative Dramatics (3)

Exploration of the theories and techniques of pedagogical, ministerial, and developmental uses of drama and theatre activities and exercises with young people in a variety of environments including educational institutions, youth groups, camps, and special events. Students will participate in, design and conduct Creative Dramatics Sessions which do not pursue performance as their objective, but rather use the processes of drama and theatre to pursue goals such as self-expression, exploration of issues and solutions, and personal and social development. Meets QuEST Arts requirement.

THEA 362 Studies in Irish Theatre: Gaiety School of Acting (4)

An applied study of Irish theatre facilitated by the faculty at the Gaiety School of Acting, Dublin, Ireland. Intensive acting workshops are complemented by seminars in Irish dramatic literature and attendance at a variety of Dublin theatres. Prerequisites: Audition, approval of the Department of Chair. J-term. Course fee to be announced.

THEA 363 Theatre for Social Change (3)

This course explores theatre created in the pursuit of social justice. Students interact with 20th century performance practices that use theatre as a venue for consciousness raising and civic dialogue. Theoretical approaches are applied in laboratory sessions which invite the student to evaluate the efficacy of specific processes. Course

material includes western and non-western forms of community animation. Meets Arts requirement.

THEA 381 Theatre Internship (1-3)

Theatre work under the supervision of a theatre professional. Open to junior and senior Theatre majors who have completed at least four Theatre courses.

THEA 420 Audition Techniques (3)

For seniors in the BA in Theatre and the BFA in Musical Theatre programs. Research and preparation of auditions for work in professional theatre venues. Discussions and reading address repertoire, techniques, and necessary procedures. Students prepare 4-6 professional auditions for class simulation. The term culminates in a showcase for invited agents and Theatre professionals.

THEA 423 Acting IV (3) This course continues the actor's development of vocal and physical agility and the development of period style. Through the study and application of acting techniques the student will explore the most recent psychophysical approaches to acting. Non-realistic styles, improvisation, and devised theatre pieces are explored through collaboration and ensemble scene work. Prerequisites: THEA 323. Spring term.

THEA 450 Theatre Design (3)

Studio course designed to give the student an examination into the chosen area of study. Emphasis on textural interpretation, design theory and aesthetics, development of specific design concepts, and the means to express and communicate the design. Prerequisites: THEA 150 and THEA 350.

THEA 470 Theatre Capstone Project (1-3)

Senior department majors will conduct a significant final portfolio project as supervised and approved by the department faculty.

THEA 475 Theatre Capstone Seminar (3)

Explores the relationship of theatre arts to faith and ethics. Requires students to discover connections between theatre practice and their philosophical presuppositions while preparing them for careers in the respective fields. Prerequisite: Must be taken in conjunction with a senior-level project. Fall semesters.

THEA 491 Independent Study (1-3)

Independent study or research in theatre under the supervision of an instructor. Prerequisite: Instructor's approval.

THEO 205 Introduction to Christian Theology (3)

A survey course dealing with the history and present expressions of classic Christian understandings of God, Christ, the Holy Spirit, humanity, creation, redemption, etc. Issues of theological method are introduced, especially as this relates to the integration of faith and learning in various academic disciplines. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 207 African-American Theology (3) Explores African-American theology, spirituality, and ethics, with special attention to Black Theology. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 209 Anabaptist Theology (3)

Explores core Christian beliefs through a study of the history and present teachings of a variety of Anabaptist churches, identifying

similarities and differences with a variety of other Christian traditions. Special attention is given to the peace witness of this tradition. Meets Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 211 Brethren in Christ Life and Thought (3)

Founding, historical development, and present situation of the Brethren in Christ, with special attention to their interaction with other religious bodies and with society generally. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 213 Pentecostal Theology (3) Explores Christian theology, spirituality, and ethics through an analysis of the beliefs and practices of Pentecostal and charismatic movements around the world, identifying similarities and differences with a variety of other Christian traditions. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 215 Roman Catholic Theology (3) A general introduction to Christian theology that pays special attention to the beliefs, practices, and traditions of the Roman Catholic Church, identifying similarities and differences with a variety of Protestant perspectives. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 217 Wesleyan/Holiness Theology (3) Examines major Christian doctrines from the perspectives of the Wesleyan/Holiness movement, identifying similarities and differences with a variety of other Christian traditions. Special attention is given to social holiness. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 219 Theology and Christian Unity (3)

Examines various Christian theological traditions (e.g., Catholic, Orthodox, Reformed, Anabaptist, Pietist, Wesleyan/Holiness) exploring areas of commonality and difference and assessing possibilities and problems related to the goal of Christian unity. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 221 Faith and Society (3)

Foundational Christian beliefs are surveyed with attention to the Gospel's social mandate. The course includes reflection on the Christian commitment to social activism and peacemaking. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 223 Global Christian Theology (3) Explores the methods and content of Christian theology, spirituality, and ethics from a global perspective with special attention given to Africa, Asia, and Latin America. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 225 Practical Theology of the Urban Church (3)

This course studies how Christian beliefs and institutions have been shaped by and help to direct community life within urban locations. Course content focuses on current methods and skills of urban church ministry, community organizing, and social change within a city. Consideration is given to different church strategies used to accomplish service to a local neighborhood. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 227 Theology, Violence, and Nonviolence (3)

Examines how core Christian beliefs and moral teachings relate to the issues of violence and non-violence. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 229 Theology and American Culture (3)

Examines core Christian Beliefs through key movements, people, and debates in North American church life, both past and present. By reading sermons, confessions, and other theological documents in their historical contexts, students will encounter both the unity and diversity of Christian belief in America, and deepen their understanding of the relationship between theology and culture. Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, BIBL 202, BIBL 203, or BIBL 204.

THEO 238 Christian Theology I: God and Humanity (3)

A survey course dealing with the history and present expressions of classic Christian understandings of God, Christ, the Holy Spirit, humanity, creation, culture, redemption, etc. Issues of theological method are also introduced. Alternate to THEO 205, reserved for students pursuing a major or minor in Christian Ministries or Music (Music and Worship). Meets QuEST Christian Beliefs requirement. Prerequisite: BIBL 201, 202, 203, or 204.

THEO 239 Christian Theology II: The Nature and Mission of the Church (3)

A biblical and historical study of the doctrine of the nature and mission of the church with special attention to the doctrines of atonement and reconciliation and to those models of the church that are relevant to those preparing for Christian ministry in the contemporary world. Prerequisite: THEO 238.

THEO 305 Christian Theology of Religious Pluralism (3)

A review and analysis of how Christian theologians have understood the relationship between Christianity and other religions. Practical concerns of interaction with followers of other religions will also be explored. Prerequisites: THEO 205 or {THEO 238 and one 200-level RELI course}.

THEO 338 Christian Theology III: Peace, Justice, and Reconciliation (3)

This course considers the biblical and theological themes pertinent to conflicts that occur on personal, national, and global levels (and are rooted in such evils as racism, sexism, materialism, and militarism) and introduces students to possibilities for prophetic intervention that works toward peacemaking, the restoration of justice, and divine and human reconciliation. Prerequisites: THEO 238 and THEO 239.

THEO 343 Contemporary Theology (3)

This course will explore the work of a selected recent theologian or theological school and movement. Through reading primary and secondary theological literature, students will encounter the ways in which the theologian(s) under consideration interacts with other theologies, social and political problems, and the intellectual currents of his or her social setting. Prerequisite: a course meeting QuEST Christian Beliefs.

THEO 354 Theology and Gender (3)

A historical and contemporary introduction to theological reflection on the meaning and significance of gender for Christian life and for the articulation of Christian doctrinal convictions. In particular, this course will explore the ways recent theologians have incorporated insights related to gender studies from a variety of academic

disciplines. Special attention will be paid to the work of women theologians in both North American and two-thirds world contexts and the impact of social location on theological perspectives. Prerequisite: IDCR 151. Meets QuEST Pluralism in Contemporary Society requirement.

THEO 366 Topics in Theology (3)

Examines in depth specific issues or doctrines. Course content varies according to topic. Prerequisite: THEO 205.

THEO 487 Biblical and Religious Studies Seminar (3) Students integrate the different subjects they have studied as undergraduates and hone their skills for lifelong learning after college. The specific subject matter of the course will vary from semester to semester. As a seminar, students will be expected to present their own work and lead discussions. Prerequisite: Senior status.

THEO 491 Independent Study (1-3) Selected topics pursued independently with frequent consultation with a faculty supervisor.

THEO 497, 498 Major Honors (3)

Independent research program for students who have a strong academic record (3.5 cumulative GPA) for a minimum of five previous semesters of college study. Departmental approval required for enrollment.

U**URBS 260 Cross-Cultural Studies: Urban/ Harrisburg (1)**

This course addresses the theory and practice of navigating and interpreting the complex social context of the urban landscape with an emphasis on Harrisburg city. The city serves as the setting for developing transferable skills in cross-cultural examination, understanding, and practice. Students will study the forces at work in shaping the city and will develop and refine skills in cross-cultural observation to better understand local and global cultures and the issues at play in the U.S. urban landscape. Meets QuEST Cross-Cultural requirement. Fall semester only.

URBS 382 Topics in Urban Studies (3)

Selected topics in urban studies not currently included in course offerings. Possible topics may include public service in urban settings, urban families, issues and change in the Harrisburg urban context. May be repeated for additional credit as the topic/study changes. Prerequisite: Three credits in Sociology or Urban Studies.

W

Students in all WELL courses explore components of physical, emotional, relational and spiritual wellness through discussions, review of articles, personal goal-setting and seminar attendance.

WELL 103 Adapted Physical Education (1)

This course is specifically designed for students with a chronic illness or condition that prevents them from safely and/or successfully meeting the physical exercise/activity requirement. Requires medical documentation and consultation with Instructor. Meets QuEST Wellness requirement.

WELL 104 Swimming for the Non-Swimmer (1)

Meets QuEST Wellness requirement.

WELL 105 Intermediate Swimming (1)

Requires beginning level skills.] This course is designed to focus on the knowledge and skills necessary to 1) develop and demonstrate the

mechanics necessary to swim the five basic strokes (front crawl, backstroke, elementary backstroke, breaststroke and sidestroke), 2) be safe in and around the water, recognizing potential hazardous conditions related to swimming and water recreation, and 3) to improve endurance and fitness and thereby develop a greater understanding of swimming as a component of a healthy lifestyle. Students considering intermediate swimming should possess the ability to perform the following beginning swimming skills: tread water, swim on the front and the back using any combination of alternating and simultaneous arm and leg actions, and swim underwater. Meets QuEST Wellness requirement.

WELL 106 Aquatic Aerobics (1)

Emphasis on basic exercises one can perform safely in the pool. Meets QuEST Wellness requirement.

WELL 107 Beginning Racquetball (1)

To provide the opportunities for the student to 1) describe and understand the relationship between care of the body and well-being as it pertains to racquetball, exercise the body and participate in ongoing physical activities, and develop habits of exercise and physical activity that could be maintained over a lifetime; 2) learn and understand the rules, strategy, terminology and scoring of the sport; 3) provide a positive personal and social experience through a leisure time activity that will benefit immediate physical outlet needs; and 4) learn to play with better intensity, execute shots with accuracy and consistency and maintain a high level of physical energy. Meets QuEST Wellness requirement.

WELL 108 Intermediate Racquetball (1)

[Requires beginning level skills.] To provide the opportunities for the student to 1) describe and understand the relationship between care of the body and well-being as it pertains to racquetball, exercise the body and participate in ongoing physical activities, develop habits of exercise and physical activity that could be maintained over a lifetime; 2) learn and understand the rules, strategy, terminology, and scoring of the sport; 3) provide a positive personal and social experience through a leisure time activity that will benefit immediate physical outlet needs, and 4) learn to play with better intensity, execute shots with accuracy and consistency and maintain a high level of physical energy. Meets QuEST Wellness requirement.

WELL 109 Beginning Volleyball (1)

This course is designed to provide students with opportunities to learn basic volleyball skills. There will be a focus on improving the skills of each student. Throughout the course there will be many opportunities for students to interact within drills and in competitive and noncompetitive situations. Meets QuEST Wellness requirement.

WELL 110 Intermediate Volleyball (1)

[Requires beginning level skills.] This course is designed to help students further develop their volleyball skills. There will be a focus on improving the skills of each individual through competitive and noncompetitive experiences. Meets QuEST Wellness requirement.

WELL 111 Advanced Volleyball (1)

[Requires intermediate level skills.] Advanced volleyball is designed to enhance already existing volleyball skills. There will be a focus on improving skills through competitive and noncompetitive experiences. Advanced offenses, defenses, and strategies will be introduced and developed throughout the class activities. Meets QuEST Wellness requirement.

WELL 112 Beginning Tennis (1)

To provide the opportunities for the student to 1) describe and understand the relationship between care of the body and well-being as it pertains to tennis, exercise the relationship between care of the body and well-being as it pertains to tennis, exercise the body and participate in ongoing physical activities, and develop habits of exercise and physical activity that could be maintained over a lifetime; 2) learn and understand the rules, strategy, terminology, and scoring of the sport; 3) provide a positive personal and social experience through leisure time activity that will benefit immediate physical outlet needs, and 4) learn to play with better intensity, execute shots with accuracy and consistency, and maintain a high level of physical energy. Meets QuEST Wellness requirement.

WELL 113 Intermediate Tennis (1)

[Requires beginning level skills.] Meets QuEST Wellness requirement.

WELL 114 Dance and Rhythm Activities (1)

Students will learn to engage in physical activity through various dance steps and activities that incorporate music and rhythmic movements. Meets QuEST Wellness requirement.

WELL 115 Skiing and Snowboarding I (1)

Thirty hours of skiing/snowboarding at the skill level of the individual participant. Regular instruction in stopping, turns, skiing/snowboarding under control, moguls, carving, safety, etc. with plenty of slope time to practice. Meets QuEST Wellness requirement. Course fee to be announced.

WELL 116 Skiing and Snowboarding II (1)

Thirty hours of skiing/snowboarding at the skill level of the individual participant. Advanced instruction in stopping, turns, skiing/snowboarding under control, moguls, carving, safety, etc. with plenty of slope time to practice. Meets QuEST Wellness requirement. Prerequisite: WELL 115. Course fee to be announced.

WELL 117 Self Defense (1)

This course will help develop basic self-defense skills. Students will gain skills using proper distance, timing, and use of body dynamics. This class is taught in a non-competitive environment. Meets QuEST Wellness requirement.

WELL 118 Creative and Expressive Movement (1)

Focus on health-related physical fitness through continuous movement and individual monitoring of pace/levels of exertion. Cooperative activities include aerobic (moderate to vigorous) and anaerobic (e.g., body awareness, self-expression, synchronized movements and group challenges) within a stimulating, challenging and enjoyable atmosphere. Meets QuEST Wellness requirement.

WELL 119 Beginning Yoga (1)

Students will learn and practice basic moves and proper technique and breathing for performing general yoga exercises. This course will emphasize and explore the physical and kinetic aspects of yoga rather than the philosophical origins. Meets QuEST Wellness requirement.

WELL 120 Racquet Activities (1)

Students will have an opportunity to learn basic rules, scoring, safety, etiquette, skills and strategies. Emphasis will be placed on developing basic racquet skills for various popular games. Meets QuEST Wellness requirement.

WELL 121 Team Activities (1)

The course provides an introduction to applying rules, strategies, position play, lead-up activities, teamwork, safety and skills of team sports as recreational activity. Meets QuEST Wellness requirement.

WELL 122 Flag Football and Basketball (1)

Students will develop an appreciation for team activities that promote skill-related and health-related physical fitness. Emphasis will be placed on basic skills, modified and small group activities, strategies and offensive and defensive play. Meets QuEST Wellness requirement.

WELL 123 Strength Training (1)

This course provides students with the instruction and guidance to design and implement a basic strength training program for life-long fitness. The course focuses on fundamentals of strength training including training principles, techniques, and safety issues. Development of and participation in an individual strength-training program is central to the course. Meets QuEST Wellness requirement.

WELL 124 Safety and R.A.D. Systems for Women (1)

This course is designed to 1) develop and enhance in each female student, the options of self-defense, and offer practical avenues for them to respond to increasing acts of violence against them, and 2) provide a college level course for the women of Messiah College in which general safety, self-defense, and post encounter options are introduced and put into practice in a controlled environment. Rape Aggression Defense (R.A.D.) Basic class is taught by a R.A.D. certified instructor, following the R.A.D. curriculum. The basic course is the cornerstone of the R.A.D. system. Meets QuEST Wellness requirement.

WELL 126 Tennis and Volleyball (1)

The course focuses on a progression of basic knowledge: skills and strategies that are needed to play and enjoy tennis and volleyball as lifetime fitness activities. Includes fundamental and developmental activities, space and court positioning, and basic principles for play. Meets QuEST Wellness requirement.

WELL 127 Aquatics (1)

The course provides knowledge and introductory skills focusing on individual development of swimming strokes and safety. Additional content includes personal safety, aquatic conditioning, water games and how to assist others in emergency situations. Meets QuEST Wellness requirement.

WELL 128 Developmental Gymnastics/Recreational & Rhythmical Activities (1) Developmental gymnastics includes balance beam and tumbling, focusing on both elementary and lower level skills/stunts. Emphases placed on basic body positions and learning sequences, spotting and safety procedures. Recreational and rhythmical activities focuses on competitive, cooperative and inclusive games, and some basic dance forms (e.g., folk, line). Meets QuEST Wellness requirement.

WELL 129 Beginning Pilates (1)

This course provides an introduction to the basic moves and techniques of Pilates. Emphasis will be placed on developing balance skills, core strength, and breath control. Students will develop basic Pilates skills, and variations thereof, that they can use through their lifetime to improve health. Meets QuEST Wellness requirement.

WELL 131 Disc Activities (1)

This course provides an introduction to the basic skills, rules, and strategy for popular games involving the use of discs. Activities may include Disc Golf, Ultimate Frisbee, and other disc games. Meets QuEST Wellness requirement.

WELL 135 Non-Traditional Games (1)

This course provides an introduction to the basic skills, rules, and strategy for popular playground and contemporary games. Games will emphasize cooperation, enjoyment, and general physical activity rather than requiring a high degree of athletic skill. Activities may include, Tchoukball, four-square, team handball, and others. Meets QuEST Wellness requirement.

WELL 136 Exercise and Weight Management (1)

Students will be guided and encouraged to eat a healthy diet, exercise regularly (walk, bike, swim) at least 3 days per week, and complete a brief daily devotional. The goal of the course is to have students develop healthier lifestyles through balancing diet, exercise and spiritual discipline. Students will develop personal goals based on the "S.M.A.R.T. Goals" principles and will be assessed based on their progress and eventual accomplishment of their goals. Meets QuEST Wellness requirement.

WELL 137 Fitness Walking (1)

Students will be guided through a progressive exercise program that gradually increases physical activity over the course of the semester. This class will specifically focus on walking for fitness. Emphasis will be on proper form, understanding how to regulate one's work rate, and improving health. Course will also address the importance of habitual physical activity with regard to health and disease risk. Meets QuEST Wellness requirement.

WELL 138 Couch to 5K (1)

This course is for students who are currently inactive or habitually get low amounts of exercise. Students will be guided through progressive workouts that prepare students to improve health and fitness. The culminating even for this course will be a completion (through walking or jogging) of a 5k event. Course will also address the importance of habitual physical activity with regard to health and disease risk. Meets QuEST Wellness requirement.

COMMUNITY OF EDUCATORS

Date indicates eligibility for membership in Community of Educators

Ex-Officio

- Randall G. Basinger**, *Provost; Professor of Philosophy* 1983
B.A., Trinity College, 1972; M.A., Trinity Evangelical Divinity School, 1974; Ph.D., Northwestern University, 1979.
- Kim S. Phipps**, *President; Professor of Communication* 1998
B.A., Kentucky Christian College, 1978; M.A., Morehead State University, 1979; Ph.D., Kent State University, 1985.

Curricular Administrators

- F. Wes Bernstein**, *Digital Media Specialist* 2014
B.A., Temple University, 2005; M.S., Shippensburg University, 2014.
- Helena Cicero**, *Interim Director, The Oakes Museum of Natural History* 2017
B.S., Messiah College, 1999; M.A., Messiah College, 2015.
- Amy E. Cook**, *Coordinator of Practicums and Internships for the Graduate Program in Counseling* 2015
B.A., M.S., Shippensburg University, 1994, 1998.
- Dean C. Curry**, *Director of the College Honors Program; Professor of Politics* 1980
B.A., Houghton College, 1974; M.A., University of Pennsylvania, 1975; Ph.D., Claremont Graduate University, 1981.
- Susan R. Donat**, *Director of Curriculum; Assistant Director of Assessment* 2011
B.A., Westminster College, 1991; M.Ed., The Pennsylvania State University, 2000; Ph.D., Indiana University of Pennsylvania, 2015.
- Douglas Flemmens**, *Director of the Collaboratory for Strategic Partnerships and Applied Research* 2016
B.S., The Pennsylvania State University, 1989; M.S., Lehigh University 2000.
- Steven S. Funck**, *Manager, Natural Sciences Laboratory Program* 2012
B.S., Grove City College, 1974; M.S., University of Kansas, 1983; M.A., U.S. Naval War College, 1993.
- Goforth, Cindy**, *Director of the Academic English Program* 2015
B.B.A., New Mexico State University, 1983; M.B.A., George Washington University, 1987; M.A., Biola University, 2012.
- Julie L. Gomboc-Turyan**, *Director of Curriculum and Student Services, School of Graduate Studies and Assistant Professor of Education* 2014
B.S., Indiana University of Pennsylvania, 2001; M.A., M.S., 2003, 2014, The Pennsylvania State University;
Ph.D., Indiana University of Pennsylvania, 2012.
- Angela C. Hare**, *Dean, School of Science, Engineering and Health; Professor of Mathematics* 1996
B.A., Wheaton College, 1990; M.S., Drexel University, 1993; Ph.D., American University, 1996.
- Hilary B. Hoover**, *Assistant Registrar* 2015
B.A., Messiah College, 2002; M.S.W., L.S.W., Temple University Harrisburg, 2007.
- Paula A. Johnson**, *Director of Clinical Education for Physical Therapy* 2016
B.S., Temple University, 1988; M.B.A., The Pennsylvania State University, 1993.
- Cynthia J. Kerns**, *Instructional Designer* 2013
B.G.S., University of Nebraska at Omaha, 1993; M.S., St. Joseph's University, 2013.
- Christine Kirkpatrick**, *Director/Teacher, Early Learning Center* 2016
B.S. Kutztown University, 1989; M.A. Liberty University; 2014.
- Jonathan D. Lauer**, *Director of the Murray Library and Learning Commons* 1989
B.A., Wheaton College (Illinois), 1974; M.A., University of Chicago, 1978; M.A., Wheaton College Graduate School, 1984.
- Robin M. Lauermann**, *Professor of Politics; Assistant Dean of General Education and Common Learning; Director of Academic Advising* 2002
B.A., M.A., Ph.D., SUNY Buffalo, 1993, 1995, 2001.
- Caroline Maurer**, *Dean, School of Business, Education and Social Sciences; Associate Professor of Education* 2013
B.S., M.Ed., Wright State University, 1982, 1992; Ph.D., The Ohio State University, 2008.
- Paula C. Maynard**, *Associate Registrar for Graduate Programs* 2015
B.A., M.A., Messiah College, 1994, 2014.
- Michael Nagel**, *Managing Director, International Business Institute* 2016
M.B.A. The Pennsylvania University; D.B.A. University of Manchester.
- Valerie Olson**, *Director of Physical Therapy Program* 2016
B.S., Southern Connecticut State University, 1975; B.H.S. University of Florida, 1976; Ph.D., UMDNJ Seton Hall University, 2000.

Robert C. Pepper , <i>Assistant Provost and Dean of the School of Graduate Studies, Assistant Professor of Leadership Studies</i> B.A., Messiah College, 1992; M.S., Shippensburg University, 1985; Ph.D., Regent University, 2009.	1994-2012; 2014
Darlene Perez-Brown , <i>Director of Occupational Therapy Program, Associate Professor of Occupational Therapy</i> B.S., University of Puerto Rico, 1979; M.A., Southwestern Baptist Theological Seminary, 1986; Ph.D., Southwestern Baptist Theological Seminary, 1991.	2015
Dereck Plante , <i>Engineering Projects Manager</i> B.A. Eastern Nazarene University; M.S.E., University of Massachusetts.	2016
Peter K. Powers , <i>Dean, School of the Humanities; Professor of English</i> B.A., Wheaton College, 1982; M.F.A., University of Montana, 1985; M.A., Ph.D., Duke University, 1987, 1991; Messiah College Scholar Chair, 2002-2004.	1997
Richard E. Roberson , <i>Dean, School of the Arts; Professor of Music</i> B.Mus., Indiana University, 1975; M.Mus., D.M.A., University of North Texas, 1977, 1979.	1983
Danielle Seibert , <i>Occupational Therapy Academic Fieldwork Coordinator, Clinical Instructor in Occupational Therapy</i> B.S., M.S. Misericordia University, 2000.	2016
Susan K. Shannon , <i>Director of Learning Technology Services</i> B.S., Shippensburg University, 1989; M.S., Shippensburg University, 1993; M.E.T., Boise State University, 2013.	2008
Amanda J. Sigel , <i>Field Placement, Internship and Certification Coordinator</i> B.A., University of Richmond, 1989; M.S., Shippensburg University, 2011.	2012
Amy C. Slody , <i>Director of Disability Services</i> B.A., Lock Haven University, 1999; J.D., Widener University School of Law, 2003.	2011
James J. Sotherden , <i>Registrar; Coordinator of Student Retention</i> B.S., Lemoine College, 1980; M.S., Syracuse University, 1987.	1999
William G. Strausbaugh , <i>Vice President for Information Technology; Associate Provost; Assistant Professor of Computer Science</i> B.A., Messiah College, 1979; M.S., Villanova University, 1981; D.Ed., Pennsylvania State University, 2003.	1981
Jon C. Stuckey , <i>Director of Development; Assistant Professor of Sociology</i> B.A., Malone College, 1986; M.A., Ph.D., Case Western Reserve University, 1989, 1992.	2003
Carrie D. Widdowson , <i>Senior Associate Registrar</i> B.S., Indiana University of Pennsylvania, 1989; M.Ed., The Pennsylvania State University, 2003.	2012
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Term-Tenure Track Faculty	
Todd Allen , <i>Professor of Communication; Special Assistant to the President and Provost for Diversity Affairs</i> B.A., Geneva College, 1991; M.A., University of Akron, 1995; Ph.D., Duquesne University, 2009.	2017
Edward T. Arke , <i>Professor of Communication; Faculty Director, Media Lab</i> B.A., M.S., Shippensburg University, 1984, 1992; Ed.D., Duquesne University, 2005.	1997
Andrew Babyak , <i>Assistant Professor of Management, Chair, Department of Business</i> B.A., Toccoa Falls College, 2003; M.A., Columbia International University, 2003; Ph.D., Regent University, 2013.	2015
Heather H. Barto , <i>Associate Professor of Counseling; Director, Graduate Program in Counseling</i> B.S., James Madison University, 1994; M.S., Johns Hopkins University, 1996; Certificate of Advanced Study, Johns Hopkins University, 2000; Ph.D., Virginia Polytechnic Institute and State University, 2011.	2010
John A. Beaney , <i>Professor of Modern Languages</i> B.A., Olivet Nazarene University, 1978; M.A., Ph.D., Purdue University, 1982, 1988; Justus-Liebig-Universität Gießen; Universität Leipzig; Philipps-Universität Marburg; Universidad de Castilla-La Mancha; Université d'Orléans; Universidad Complutense de Madrid, Universität Wien.	1987
John I. Bechtold , <i>Professor of Psychology; Chair, Department of Psychology</i> B.A., Wheaton College, 1980; M.S., Ph.D., Kansas State University, 1983, 1986, 1990.	1988
Karl Bergmann , <i>Assistant Professor of Physical Therapy; Assistant Director, Doctor of Physical Therapy Program</i> B.S., M.S., Northeastern University, 2002; ScD, Texas Tech University, 2008.	2017
Sheri L. Boyce , <i>Professor of Biology; Pre-Health Professions Committee/Allied Health Advising</i> B.S., Messiah College, 1992; Ph.D., The Ohio State University, 1999.	1999
Erin F. Boyd-Soisson , <i>Professor of Human Development and Family Science</i> B.S., The University of Pittsburgh, 1995; M.A., Ph.D., The University of Texas at Austin, 1999, 2002.	2002
Carol A. Buckley , <i>Assistant Professor of Math Curriculum Climate and Instruction; Supervisor of Student Teachers</i> B.S., M. Ed., Shippensburg University, 2003, 2007; D.Ed., Immaculata University, 2013.	2013

Melinda S. Burchard , <i>Associate Professor of Special Education</i> B.A., The College of William and Mary, 1985; M.Ed., James Madison University, 2002; Ph.D., George Mason University, 2010.	2011
Fabrizio Cilento , <i>Associate Professor of Communication</i> B.A., M. A., University of Florence, 2003; M.A., University of Washington, 2005; Ph.D., University of Washington, 2010.	2010
Leah K. Clarke , <i>Associate Professor of Counseling; Assistant Director, Graduate Program in Counseling</i> B.A., The College of William & Mary, 2000; M.S., University of North Carolina at Greensboro, 2004; Ph.D., University of North Carolina at Greensboro, 2009.	2010
Edward R. Cohn , <i>Associate Professor of Theatre</i> B.A., State University of New York College at Plattsburgh, 1987; M.A., New York University, 1993; Ph.D., Bowling Green State University, 2000.	2001
Robin A. Collins , <i>Professor of Philosophy; Messiah College Distinguished Professor, 2012-2017</i> B.A., B.S., Washington State University, 1984; Ph.D., University of Notre Dame, 1993; Messiah College Scholar Chair, 1999-2000.	1994
James Colonna , <i>Assistant Professor of Music; Director of Bands</i> B.A., Saint Vincent College, 1995; M.M., University of North Texas, 2000; D.M.A., Michigan State University, 2007.	2017
Jean Thompson Corey , <i>Associate Professor of English; Chair, Department of English; Director, Center for Public Humanities</i> B.S., Vanderbilt University, 1979; Teacher Certification, Gordon College, 1985; M.A., Duke University, 1989; D.A., Middle Tennessee State University, 2000.	2006
Rachel A. Cornacchio , <i>Associate Professor of Music Education; Assistant Director of Graduate Program in Conducting; Supervisor of Student Teachers</i> B.M., Nyack College, 1998; M.M., Florida State University College of Music, 2002; Ph.D., University of Oregon, 2008.	2008
Michael R. Cosby , <i>Professor of New Testament</i> B.S., University of Montana, 1972; M.A., Western Kentucky University, 1980; Ph.D., Emory University, 1985. C. N. Hostetter, Jr. Chair of Religious Studies, 2001-2003; Messiah College Scholar Chair, 2004-2006, 2012-2014 and Distinguished Professor, 2007-2012.	1997
Richard D. Crane , <i>Associate Professor of Theology</i> B.A., Samford University, 1984; M.Div., The Southern Baptist Theological Seminary, 1989; Ph.D., Marquette University, 2000. Hostetter Endowed Chair, 2014-2016.	2002
Kristopher Cravey , <i>Assistant Professor of Business; Director Graduate Programs in Business and Leadership</i> B.A., Christian Life College, 1999; M.A., M.B.A., Ph.D. Regent University, 2005, 2015.	2015
Henry A. Danso , <i>Professor of Psychology</i> B.A., (Hons.), University of Ghana, 1992; M.A., Wilfrid Laurier University, 1996; Ph.D., The University of Western Ontario, 2001.	2009
Edward B. Davis , <i>Professor of the History of Science; Messiah College Distinguished Professor, 2013-2018</i> B.S., Drexel University, 1975; M.A., Ph.D., Indiana University, 1981, 1984; Messiah College Scholar Chair, 1998-1999; Distinguished Professor, 2002-2012.	1985
David N. Dixon , <i>Associate Professor of Communication</i> B.A., Messiah College, 1988; M.A., Wheaton College Graduate School, 1993; Ph.D., Indiana University-Bloomington, 2000.	2014
Timothy D. Dixon , <i>Professor of Music; Director of Orchestral Activities; Co-Chair, Department of Music</i> B.A., B.M., Miami University, 1995, 1998; M.M., Michigan State University, 1997; D.M.A. University of Iowa, 2002.	2002
Michael Dolislager , <i>Assistant Professor of Economic Development</i> B.A., Hope College, 2003; Ph.D., Michigan State University, 2017.	2015
Jan E. Dormer , <i>Associate Professor of TESOL</i> B.A., Asbury College, 1983; M.A., Ball State University, 1986; Ed.D., University of Toronto, 2006.	2012
Jennifer J. Dose , <i>Professor of Management</i> B.A., Wittenberg University, 1989; M.A., Ph.D., The Ohio State University, 1991, 1995; The Harry R. Hitchcock Chair of Business and Management, 2003-2005, 2012-2015.	2000
Crystal L. Downing , <i>Professor of English and Film Studies; Messiah College Distinguished Professor, 2012-2017</i> B.A., Westmont College; M.A., Ph.D., University of California at Santa Barbara, 1982, 1986; Messiah College Scholar Chair, 2001-2003, 2008-2010, 2011-2012.	1994
Elizabeth Dubin , <i>Assistant Professor in Art Education; Director of the Aughinbaugh Art Gallery</i> B.A., Shippensburg University; M.F.A., Temple University; M.Ed., The Pennsylvania State University.	2014
David A. Dzaka , <i>Professor of English; Director, Writing Center</i> B.A., Dip.Ed., University of Cape Coast, Ghana, 1989; M. Phil., University of Ghana, 1994; Ph.D., University of Hawaii, 2001.	2001-2004, 2006
L. Marlin Eby , <i>Professor of Mathematics and Statistics</i> B.A., Millersville State College, 1973; M.Stat., Ph.D., University of Florida, 1975, 1978.	1985
Gary Emberger , <i>Professor of Biology</i> B.S., M.S., The Pennsylvania State University, 1975, 1977; Ph.D., North Carolina State University, 1981.	1981

Jeffrey S. Erikson , <i>Assistant Professor of Biology and Environmental Science</i> B.S., The Pennsylvania State University, 1990; M.S., Shippensburg University, 1996; M.E.P.C., The Pennsylvania State University, 2002.	1997
Anthony Eseke , <i>Assistant Professor of Communication and Public Relations</i> B.A., SS. Peter & Paul Seminary, 1992, 1996; B.A. University of Ibadan, 2007; M.A. University of Nigeria, 2004; M.A., Ph.D., University of Florida, 2012; 2015.	2016
Patrice R. Ewoldt , <i>Associate Professor of Music</i> B.A., University of Northern Iowa, M.M., The Cleveland Institute of Music, D.M.A., University of Maryland.	2011
Emily Farrar , <i>Assistant Professor of Engineering</i> B.S., Messiah College, 2010; M.S., Ph.D., Cornell University 2013, 2014.	2015
Matthew Farrar , <i>Assistant Professor of Physics</i> B.S., McMaster University, 2007; M.S., Ph.D., Cornell University 2010, 2012.	2015
John Fea , <i>Professor of American History; Chair, Department of History</i> B.S., Cairn University (formerly Philadelphia Biblical University), 1988; M.Div., Trinity Evangelical Divinity School, 1992; M.A., Trinity International University, 1992; Ph.D., State University of New York at Stony Brook, 1999; Messiah College Scholar Chair, 2005-2007.	2002
Daniel M. Finch , <i>Professor of Art</i> B.F.A., Augusta State University, 1995; M.F.A., The University of Georgia, 2001.	2002
Sarah Fischer , <i>Assistant Professor of Literacy Education</i> B.S., The Pennsylvania State University, 2008; M.S., The Pennsylvania State University, 2012; Ph.D., The Pennsylvania State University 2015.	2015
Randall K. Fish , <i>Professor of Electrical Engineering; Assistant Chair, Department of Engineering</i> B.S., Eastern Nazarene College, 1979; B.S., Boston University, 1980; M.S., Boston University, 1982; Ph.D., University of Washington, 2001.	2008
Jennifer L. Fisler , <i>Professor of Education; Director of Teacher Education Program; Director of Teaching & Learning</i> B.A., Messiah College, 1994; M.Ed., D.Ed., Rutgers University, 1997, 2002.	2003
Eric M. Forst , <i>Assistant Professor of Music</i> B.M., The University of Georgia, 2003; M.M., The University of Kansas, 2005.	2013
Christine A. Forsythe , <i>Professor of Art</i> B.A., Indiana University of Pennsylvania, 1977; M.F.A., Rochester Institute of Technology, 1982.	1982
Donald J. Forsythe , <i>Professor of Art</i> B.S., Indiana University of Pennsylvania, 1977; M.F.A., Rochester Institute of Technology, 1979; Messiah College Distinguished Professor, 2003-2013.	1982
David K. Foster , <i>Professor of Biology and Environmental Science</i> B.S., Eastern College, 1990; M.S., Ph.D., University of Wisconsin-Madison, 1993, 1998.	1997
Milton C. Gaither , <i>Professor of Education</i> B.A., Wheaton College, 1993; M.A.R., Yale Divinity School, 1996; Ph.D., Indiana University, 2000.	2000
Stephen E. Gallaher , <i>Professor of Christian Ministries</i> B.A., Messiah College, 1978; M.Div., Lancaster Theological Seminary, 1981; D.Min., Perkins School of Theology, 1996.	2004
Maya N. Georgieva , <i>Assistant Professor of Counseling</i> B.A., Sofia University, 2008; M.A., Marymount University, 2013.	2017
Malcolm Gold , <i>Associate Professor of Sociology; Chair, Department of Sociology, Anthropology and Criminal Justice</i> B.S., Birmingham University UK, 1994; M.A., Warwick University UK, 1996; Ph.D., Warwick University UK, 2001.	2015
Brenton E. Good , <i>Associate Professor of Art; Chair, Department of Visual Arts</i> B.A., Messiah College, 2001; M.A., M.F.A., University of Dallas, 2003, 2005.	2007
Todd A. Goranson , <i>Professor of Music</i> B.M.P., M.M., University of Idaho, 1997, 1999; DMA, West Virginia University, 2006.	2012
David J. Hagenbuch , <i>Professor of Marketing</i> B.S., Messiah College, 1989; M.B.A., Temple University, 1991; D.B.A., Anderson University, 2006; Hitchcock Chair of Business and Management, 2007-2009.	2000
Raeann R. Hamon , <i>Professor of Family Science and Gerontology; Chair, Department of Human Development and Family Science, 2012-2016;</i> <i>Messiah College Distinguished Professor, 2011-2016</i> B.A., Messiah College, 1983; M.S., Ph.D., Virginia Polytechnic Institute and State University, 1985, 1988; Graduate Certificate in Gerontology, 1986; Certified Family Life Educator, 1997; Messiah College Scholar Chair 2003-2005; Distinguished Professor, 2005-2011, 2012-16.	1986
Michael A. Harcrow , <i>Associate Professor of Music</i> B.M.Ed., West Texas State University, 1983; M.M., University of Miami, 1988; D.M.A., University of North Texas, 2007.	2006

John C. Harles , <i>Professor of Politics; Co-chair, Department of Politics and International Relations; Student Scholarship Advisor</i> B.A., Wheaton College, 1979; M.Phil., D.Phil., Oxford University, 1981, 1989. Messiah College Scholar Chair, 2000-2002; 2008-2009; 2015-2017.	1984
John F. Harms , <i>Associate Professor of Biological Sciences</i> A.S., Jamestown Community College, 1994; B.S., State University of New York, College at Fredonia, 1996; Ph.D., Pennsylvania State University, College of Medicine, 2002.	2006
Andrew Hart , <i>Assistant Professor of Theology</i> B.A., Messiah College, 2004; M.Div., Biblical Theological Seminary, 2011; Ph.D., Lutheran Theological Seminary of Philadelphia.	2016
Kerry Hasler-Brooks , <i>Assistant Professor of English</i> B.A., Messiah College, 2005; M.A., Villanova University, 2010; Ph.D., University of Delaware, 2014.	2015
David Hazen , <i>Assistant Professor of Education</i> B.A., Winona State University, 1997; M.A., University of St. Thomas, 2000; Ed.D., Walden University, 2013.	2017
Niklas Hellgren , <i>Associate Professor of Physics</i> M.S., Ph.D., Linköping University, 1995, 1999.	2010
Mary L. Holloway , <i>Assistant Professor of Communication</i> B.A., Clarion State University, 1976; M.A., Western Kentucky University, 1982.	1982
Stanley Hoover , <i>Assistant Professor of Counseling</i> B.A., Taylor University, 2009; M.A., Richmond Graduate University, 2012; Ph.D., Mercer University, 2015.	2015
Joseph P. Huffman , <i>Professor of European History; Messiah College Distinguished Professor, 2010-2020, Coordinator, Latin Language & Literature Program</i> , B.A., Seattle Pacific University, 1982; M.A., Western Michigan University, 1984; M.A., Ph.D., University of California, Los Angeles, 1985, 1991; Messiah College Scholar Chair, 2001-2002. Public Humanities Fellow, 2014-2015.	1994
Gregg M. Hurley , <i>Assistant Professor in Dance</i> B.A., Hofstra University, 1993; M.F.A., University of Arizona School of Dance, 2010.	2013
Krista H. Imbesi , <i>Assistant Professor of Film and Digital Arts</i> B.A., Messiah College, 2009; M.F.A., SUNY University at Buffalo, 2012.	2014
Daniel Inouye , <i>Associate Professor of Theatre</i> B.A., Wheaton College, 2000; M.F.A., Baylor University, 2006.	2015
Douglas Jacobsen , <i>Professor of Church History and Theology; Messiah College Distinguished Professor, 2012-2022</i> <i>Coordinator, Christian Scholarship and College Identity</i> B.A., Wheaton College, 1973; M.A., Ph.D., The University of Chicago, 1977, 1983; Messiah College Distinguished Professor, 2001-2011.	1984
Rhonda Hustedt Jacobsen , <i>Professor of Psychology; Director of Faculty Development</i> B.A., Wheaton College, 1972; M.Ed., University of Illinois, 1975; Ed.D., Temple University, 1988; Lancaster Theological Seminary.	1984
Tara S. Jankouskas , <i>Associate Professor of Nursing</i> B.S.N., Bloomsburg University of Pennsylvania, 1984; M.S.N., University of Texas at Austin, 1991. Ph.D., The Pennsylvania State University, 2010.	2009
Charles D. Jantzi , <i>Professor of Psychology</i> B.A., Cedarville College, 1986; M.A., University of Dayton, 1988; Psy.D., Wright State University, 1994.	2004
Paul A. Johns , <i>Assistant Professor of Human Development and Family Science</i> B.A., Messiah College, 1996; M.A., Bethel Theological Seminary, 2001; Certified Family Life Educator, 2006; Licensed Marriage and Family Therapist, 2007.	2005-2006, 2007
Kathleen M. Johnston , <i>Associate Professor of Accounting</i> B.A., Lycoming College, 1986; MBA, Lebanon Valley College, 1998; CPA, Pennsylvania.	2013
Sarah D. Jones , <i>Assistant Professor of Nursing</i> B.S.N., M.S.N., Indiana University of Pennsylvania, 1992, 2002.	2014
Sang Uk Joo , <i>Assistant Professor of Sport Management</i> B.P.Ed., M.P.Ed., Korea National Sport University, 2007; M.S., State University of New York at Cortland, 2009.	2015
David E. Kasperek , <i>Associate Professor of Graphic Design</i> B.A., Seton Hill College, 1995; M.G.D., North Carolina State University School of Design, 1998.	2000
Tina Keller , <i>Assistant Professor of TESOL Education</i> B.S., Messiah College, 1999; M.Ed., The Pennsylvania State University, 2009; Ph.D. New Mexico University, 2015.	2015
H. Scott Kieffer , <i>Professor of Health and Exercise Physiology</i> B.S., B.A., Davis and Elkins College, 1985; M.S., University of Nebraska-Kearney, 1987; Ed.D., University of South Dakota, 1998.	1999
Robert A. Kilmer , <i>Associate Professor of Business Information Systems and Management</i> B.S., Indiana University of Pennsylvania, 1976; M.S., Naval Postgraduate School, 1986; Ph.D., University of Pittsburgh, 1994.	1998

Jesse Kleingardner , <i>Assistant Professor of Biochemistry</i> B.S., Ithaca College, 2005; M.S., University of Rochester, 2009; Ph.D., University of Rochester, 2014.	2015
James A. Krimmel , <i>Associate Professor of Accounting</i> B.S., Messiah College, 1981; C.P.A., 1984; M.B.A., Shippensburg University, 1990; Certified Fraud Examiner (CFE), 2002; Certified Financial Forensics, 2014.	1986
Abaz Kryemadhi , <i>Associate Professor of Mathematical Sciences</i> B.S., University of Tirana, 1996; Diplom Physik, University of Siegen, Germany, 1998; M.S., Indiana University, 2000; Ph.D., Indiana University, 2004.	2006
Stephen F. Kuniak , <i>Assistant Professor of Counseling</i> B.A., Saint Vincent College, 2005; M.S., Ph.D., Duquesne University, 2008, 2014.	2017
James B. LaGrand , <i>Professor of American History; Director of the Core Course</i> B.A., Calvin College, 1990; M.A., Ph.D., Indiana University, 1992, 1997. Messiah College Scholar Chair, 2000-2002.	1997
Charlene Lane , <i>Assistant Professor of Social Work</i> B.A., York College (CUNY), 1990; M.S.W., New York University, 1994; Ph.D., Adelphi University, 2012.	2017
Valerie A. Lemmon , <i>Associate Professor of Psychology</i> B.A., Gettysburg College, 1985; M.S., Millersville University, 1992; M.S., Psy.D., Philadelphia College of Osteopathic Medicine, 2004.	2007
Matthew D. Lewis , <i>Assistant Professor of Health , Nutrition and Exercise Science; Athletic Trainer</i> B.A., Asbury University, 2002; M.S., University of Kentucky, 2007; Ph.D. University of Kentucky, 2014.	2013
Erik D. Lindquist , <i>Professor of Biology and Environmental Science; Chair, Department of Biological Sciences; Chair</i> B.S., Southern Illinois University, 1991; M.S., Ph.D., The Ohio State University, 1995, 1997.	2003
Amanda Lohss , <i>Assistant Professor of Mathematics</i> B.S., York College of Pennsylvania, 2012; M.S., Ph.D., Drexel University, 2014, 2017.	2017
James V. Makowski , <i>Professor of Biology</i> B.A., Messiah College, 1976; M.A., West Chester State University, 1980; Ph.D., University of Delaware, 1991.	1981
Theresa Mannah-Blankson , <i>Assistant Professor of Economics</i> B.A., M.Phil., University of Ghana, 2000, 2003. M.A., Ph.D. University of Massachusetts, 2016.	2016
Sean C. Matthews , <i>Associate Professor of Art</i> B.F.A., Appalachian State University, 2002; M.F.A., Towson University, 2006.	2010
Nancy D. McCown , <i>Associate Professor of Communication; Co-Chair, Department of Communication</i> B.A., Messiah College, 1985; M.J., Temple University, 1994; Ph.D., University of Maryland, 2008.	2007
Carol Z. A. McGinnis , <i>Assistant Professor of Counseling</i> B.S., M.S., Ph.D., Loyola University, 2002, 2006, 2010. M.S., University of Maryland University College, 2013.	2012
Obed Mfum-Mensah , <i>Professor of Education</i> B.A., Andrews University, 1995; M.Ed., University of Western Ontario, 1999; Ph.D., University of Toronto, 2003.	2005
Bernardo A. Michael , <i>Professor of History; Coordinator, Ethnic and Area Studies</i> B.A., M.A., St. Stephen's College, University of Delhi, India, 1984, 1986; Ph.D., University of Hawaii, 2001; Messiah College Scholar Chair, 2007-2008, 2009-2010.	2001
Caleb D. Miller , <i>Professor of Philosophy</i> B.A., Drake University, 1980; M.A.T.S., Gordon-Conwell Theological Seminary, 1983; Ph.D., University of Notre Dame, 1991.	1993
Douglas K. Miller , <i>Professor of Health and Exercise Science; Director of Wellness</i> B.A., Manchester College, 1976; M.A., University of Northern Colorado, 1979; Ph.D., University of Maryland, 1992.	1979
Deedre Nancy Cher Mitchell , <i>Assistant Professor of Counseling</i> B.A., Shippensburg University, 2001; M. Educ., Loyola University MD, 2004; Ph.D., Regent University, 2012.	2012
Donald A. Murk , <i>Professor of Early Childhood Education; Chair, Department of Education</i> B.S., Messiah College, 1979; M.A., The Pennsylvania State University 1984; Ph.D., University of Maryland, 1992; Fellow, Ernest L. Boyer Center, 2012-2014.	1981
Lawrence M. Mylin , <i>Professor of Biology</i> B.A., B.A., Messiah College, 1980; Ph.D., The Pennsylvania State University, 1990.	1999
Brian A. Nejmeh , <i>Professor of Business Information Systems and Entrepreneurship</i> B.S., Allegheny College, 1983; M.S., Purdue University, 1985.	2002
Ness-Myers, Jennifer , <i>Assistant Professor of Biology</i> B.A., Concordia College, 1997; Ph.D., The Pennsylvania State University College of Medicine, 2002.	2017

Alison R. Noble , <i>Associate Professor of Chemistry</i> B.S., Westmont College, 1997; Ph.D., University of Illinois Urbana-Champaign, 2002.	2010
David R. Owen , <i>Associate Professor of Computer Science</i> B.S., Messiah College, 1997; M.S., West Virginia University, 2002; Ph.D., West Virginia University, 2007.	2007
Jenell Williams Paris , <i>Professor of Sociology and Anthropology</i> B.A., Bethel University, 1994; Ph.D., American University, 1998; Messiah College Scholar Chair, 2010-2012.	2007
Nancy J. Patrick , <i>Professor of Special Education; Director of the Graduate Program in Education</i> B.A., Texas A & I University, 1977; M.Ed., University of North Florida, 1981; Ph.D., The Pennsylvania State University, 1992.	2002
David K. Pettegrew , <i>Associate Professor of History</i> B.A., Wright State University, 1998; M.A., Ph.D., The Ohio State University, 2000, 2006; Messiah College Scholar Chair, 2009-2011, 2014-2016.	2006
Douglas C. Phillippy , <i>Professor of Mathematics</i> B.A., Shippensburg University, 1983; M.S., Ph.D., Lehigh University, 1986, 1991.	1993
George F. Pickens , <i>Professor of Theology and Mission, Coordinator, Peace and Conflict Studies</i> B.A., Kentucky Christian College, 1980; M.A., The Ohio University, 1984; Ph.D., The University of Birmingham, England, 1997.	2005
Amy B. Porto , <i>Associate Professor of Nutrition and Dietetics</i> B.S., Muhlenberg College, 1997; Ph.D., The Pennsylvania State University, 2004.	2004
Emerson B. Powery , <i>Professor of Biblical Studies</i> A.A., Miami Dade Community College, 1986; B.A., Lee University, 1989; M. Div., Princeton Theological Seminary, 1992; Ph.D., Duke University, 1999. Hostetter Chair of Religious Studies, 2009-2011.	2008
Donald G. Pratt , <i>Professor of Engineering</i> B.S., Case Western Reserve University, 1978; M.E., Ph.D., Cornell University, 1989, 1992; Moody Bible Institute, Clarence W. Hottel Chair of Engineering, 2001- 2003; 2005-2007; 2009-2011.	1993
Sharon L. Putt , <i>Professor of Theology and Religion</i> Graduate Diploma in Theology, Southwestern Baptist Theological Seminary, 1997; M.Th., Texas Christian University, 1999; Ph.D., Southern Methodist University, 2006. Messiah College Scholar Chair, 2011-2013.	2005
Keith Quesenberry , <i>Assistant Professor of Marketing</i> B.A., Temple University, 1994; M.S., West Virginia University, 2011.	2015
Eric Rawson , <i>Professor of Exercise Science; Chair, Department of Health, Nutrition and Exercise Science</i> B.S. Northeastern University, 1992; M.S., Ph.D. University of Massachusetts, 1998, 2000.	2016
Anne M. Reeve , <i>Professor of Chemistry</i> B.S., Clemson University, 1983; Ph.D., The Johns Hopkins University, 1992.	2007
Paul M. Rego , <i>Associate Professor of Politics; Chair, Department of Politics and International Relations</i> B.A., Millersville University, 2001; M.A., Ph.D., University of Massachusetts-Amherst, 2005, 2006.	2007
J. Roberto Reyes , <i>Professor of Human Development and Family Science</i> B.A., Oral Roberts University, 1989; M.Div., Ph.D., Fuller Theological Seminary, 1992, 1995. Certified Family Life Educator, 1997; Clinical Member, American Association of Marriage and Family Therapy, 1996; Fellow, Ernest L. Boyer Center, 2012-2014.	1996–2007; 2012
Gladys Alicia Robalino , <i>Associate Professor of Spanish; Chair, Department of Modern Languages</i> A.A.B., American Junior College, 1989; B.A., Catholic University, 1999; M.Ed., Universidad Tecnologica Equinoccial, 2001; M.A., McGill University, 2004; Ph.D., Vanderbilt University, 2008.	2008
Sheila K. Rodriguez , <i>Associate Professor of Spanish</i> B.A., Earlham College, 1992; M.A., Ph.D, Temple University, 2000, 2005.	2003-2004, 2006
Eugene G. Rohrbaugh , <i>Professor of Computer Science</i> B.A., Millersville University of PA, 1987; B.S., Millersville University of PA, 2002; M.A., University of Texas, 1993; Ph.D., University of Texas, 1995.	1996-1997; 1998-2005; 2007
Matthew S. Roth , <i>Professor of English</i> B.A., Houghton College, 1992; M.F.A., Wichita State University, 1996; Ph.D., University of North Texas, 2002.	2002
Roseann K. Sachs , <i>Professor of Chemistry; Chair, Department of Chemistry and Biochemistry</i> B.A., Bethel University, 1986; Ph.D., University of Minnesota; 1993.	2003
Dwayne Safer , <i>Assistant Professor of Finance</i> B.S., Taylor University; M.B.A. Rutgers University.	2016
Rodney Sauder , <i>Assistant Professor of Accounting</i> B.A., Messiah College, 2002; M.B.A., Shippensburg University, 2015.	2015

Damian G. Savarino , <i>Associate Professor of Music</i> B.M., Ithaca College, 1994; M.M., New England Conservatory of Music, 1997; D.M.A., Catholic University of America, 2013.	2004
Richard W. Schaeffer , <i>Professor of Chemistry</i> B.A., Messiah College, 1983; Ph.D., Temple University, 1992.	2004
David J. Schenk , <i>Associate Professor of Philosophy</i> B.A., Antioch College, 1991; Ph.D., University of Iowa, 2003.	2006
Timothy W. Schoettle , <i>Professor of Philosophy; Chair, Department of Philosophy</i> B.A., Yale University, 1990; M.A., University of Michigan, 1997; Ph.D., University of California, 2003.	2004
Eric A. Seibert , <i>Professor of Old Testament</i> B.A., Messiah College, 1992; M.A., M.Div., Asbury Theological Seminary, 1996; M.Phil., Ph.D., Drew University, 1999, 2002; C. N. Hostetter, Jr. Chair of Religious Studies, 2003-2005; Messiah College Scholar Chair, 2010-2012.	2000
Charles R. Seitz , <i>Professor of Social Work; Chair, Department of Social Work</i> B.A., M.S.W., University of Maryland, 1983, 1986; Ph.D., Regent University, 2006.	2000
Michael J. Shin , <i>Associate Professor of Biology</i> B.A., Yale University, 1994; M.S., Ph.D., New York University, 1997, 2004.	2004
Kate D. Simcox , <i>Professor of Communication; Co-Chair, Department of Communication</i> B.A., Bluffton University, 2001; M.A., Ph.D., Bowling Green State University, 2002, 2005.	2005
Shelly Ann Skinner , <i>Associate Professor of Christian Ministries</i> B.A., Biola University, 1994; M.A. Talbot School of Theology, 1997; Ed.D., The Southern Baptist Theological Seminary, 2010.	2011
Nathaniel L. K. Skulstad , <i>Assistant Professor of Film and Digital Media</i> B.A., Trinity Western University, 2005; MFA, York University, 2013.	2013
Brian A. Smith , <i>Associate Professor of Hebrew Bible; Chair, Department of Biblical and Religious Studies; Teaching Pastor, Office of College Ministries</i> B.A., Taylor University, 1988; M.Div., Gordon-Conwell Theological Seminary, 1994; M.Phil., Ph.D., Hebrew Union College-Jewish Institute of Religion, 1999, 2007.	2001
Samuel O. Smith , <i>Professor of English</i> B.S., Philadelphia College of Bible, 1982; M.A., Shippensburg University, 1983; Ph.D., University of Delaware, 1989; Folger Institute for Renaissance and Eighteenth-Century Studies; Folger Institute for the History of British Political Thought; University of Chicago.	1989
Thomas S. Soerens , <i>Professor of Engineering</i> B.S.C.E., University of Wisconsin–Milwaukee, 1987. M.S., Ph.D., University of Oklahoma, 1991, 1995.	2013
William J. Stowman , <i>Professor of Music; Co-Chair, Department of Music; Director of Instrumental Studies</i> B.S., Indiana University of Pennsylvania, 1985; M.M.E., M.A., Eastern Kentucky University, 1993, 1994; D.M.A., University of North Texas, Denton, 1998.	1996
Brian D. Swartz , <i>Associate Professor of Engineering, Chair, Department of Engineering</i> B.S., M.S., Ph.D., The Pennsylvania State University, 2005, 2007, 2010.	2013
David J. Tanis , <i>Assistant Professor of Adventure Education; Director of Adventure Programs</i> B.S., Calvin College, 1990; M.A., Geneva College, 1997; D.Ed., The Pennsylvania State University, 2012.	1997
Jennifer L. Thomson , <i>Associate Professor of Biopsychology</i> B.S., Rider University, 2003. Ph.D., University of North Carolina at Chapel Hill, 2009.	2012
Wanda E. Thuma-McDermond , <i>Professor of Nursing</i> B.A., B.S.N., Goshen College, 1975, 1979; M.S., Indiana Wesleyan University, 1992; Ph.D., Widener University, 2011.	2003
Harold R. Underwood , <i>Associate Professor of Engineering and Physics</i> B.A., Wheaton College, 1984; B.S., M.S., Ph.D., University of Illinois, 1984, 1986, 1990.	1992
David T. Vader , <i>Professor of Engineering</i> B.S.M.E., Texas A & M University, 1982; M.S.M.E., Ph.D., Purdue University, 1985, 1988. Hottel Chair of Engineering, 1999-2001.	1993
Timothy J. Van Dyke , <i>Associate Professor of Engineering</i> B.S., Calvin College, 1983; B.S., M.S., M.S., Ph.D., University of Michigan, 1983, 1984, 1989, 1995.	2001
D. Scott Weaver , <i>Associate Professor of Computer Science; Chair, Department of Computer and Information Science</i> B.A., Messiah College, 1985; M.S., Shippensburg University, 1998; D.P.S., Pace University, 2010.	2002
David L. Weaver-Zercher , <i>Professor of American Religious History</i> B.A., Messiah College, 1983; M.Div., Eastern Baptist Theological Seminary, 1987; Ph.D., The University of North Carolina at Chapel Hill, 1997. Messiah College Scholar Chair, 2014-2016.	1997

Dorothy Weigel , <i>Program Director of the Higher Education Program, Assistant Professor of Higher Education</i> B.A. King University, 1999; M.A. Appalachian State University, 2001; Ph.D. University of South Carolina, 2010.	2016
Cynthia A. Wells , <i>Associate Professor of Higher Education; Director of the Ernest L. Boyer Center</i> A.B., Occidental College, 1988; M.S., Wright State University, 1992; Ph.D., The Ohio State University, 2003; Fellow, Ernest L. Boyer Center, 2012-2014.	1998
Travis Weller , <i>Assistant Professor of Music</i> B.S., Grove City College, 1995; M.Ed., Duquesne University, 2007; Ph.D., Kent State University, 2014.	2017
Tymberley A. Whitesel , <i>Professor of Theatre; Chair, Department of Theatre and Dance</i> B.A. Goshen College, 1993; M.F.A., Illinois State University, 1998.	2004
Lamarr C. Widmer , <i>Professor of Mathematics</i> B.A., M.S., Ph.D., University of Iowa, 1972, 1984, 1988.	1988
Samuel P. Wilcock , <i>Professor of Statistics; Chair, Department of Mathematics, Physics and Statistics</i> B.A., Messiah College, 1996; M.S., Ph.D., Virginia Polytechnic Institute and State University, 1997, 2001.	2001
Norman J. Wilson , <i>Professor of History</i> B.A., B.A., University of Wisconsin-Madison, 1981, 1985; M.A., Ph.D., U.C.L.A., 1987, 1994.	2003
Kathryn A. Witt , <i>Professor of Dietetics; Director of the Didactic Program in Dietetics</i> B.A., Hope College, 1981; M.S., Purdue University, 1983; Ph.D., The Ohio State University, 1989.	1991
Nancy Woods , <i>Professor of Nursing; Chair, Department of Nursing</i> Diploma, Thomas Jefferson University Hospital, 1975; B.S.N., University of Hawaii, 1981; M.S.N., University of Pennsylvania, 1986; M.P.H., University of Hawaii, 1997; Post-MSN, Ursuline College, 2003; Ph.D., Johns Hopkins University, 2004.	2008
Maude S. Yacapsin , <i>Associate Professor of Special Education</i> B.A., M.S., Bloomsburg University, 1988, 1992; Ed.D., University of Nebraska, 2006.	2011
Tesfayohanes Jacob , <i>Assistant Professor of Engineering</i> B.S., Addis Ababa University, 2005; Ph.D., University of Colorado, Boulder, 2012.	2015
Lijuan (Stella) Ye , <i>Associate Professor of Mandarin Chinese</i> B.A., Zhejiang University of Technology, 2003; M.A., University of Alabama, 2006; Ph.D., Georgia State University, 2011.	2011
Kim D. Yúnez , <i>Professor of Spanish</i> B.A., Houghton College, 1986; M.A., Ph.D., Temple University, 1990, 1999.	1990
Donjiao Zhao , <i>Associate Professor of Anatomy; Cadaver Lab Coordinator</i> B.M., China Medical University, 1995; Ph.D., Purdue University, 2010.	2017
Michael A. Zigarelli , <i>Professor of Leadership and Strategy</i> B.A., Lafayette College, 1987; M.A., Cornell University, 1989; Ph.D., Rutgers University, 1994.	2008
Louann B. Zinsmeister , <i>Professor of Nursing; Program Director of the Graduate Programs in Nursing</i> B.S.N., Millersville University, 1984; M.S., University of Delaware, 1985; Ph.D., Widener University, 2004; NLN Certified Nurse Educator, 2011.	1994
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Clinical Track	
Wendy L. Cheesman , <i>Associate Professor in Health and Human Performance; Physical Therapist; Athletic Trainer</i> B.A., Messiah College, 1989; M.S., University of Rhode Island, 1995; D.P.T., Temple University, 2014.	1996
Marti G. Derr , <i>Associate Professor of Nursing</i> B.S.N., Eastern Mennonite University, 1981; M.S., University of Kentucky, 1985; M.S., Goldsmiths College, University of London, 1992; M.S.N., University of Maryland, 2004.	1996
Frank, Nancy , <i>Assistant Professor of Nursing</i> B.S.N., Messiah College, 1997; M.S.N., Messiah College, 2016.	2017
Michelle D. George , <i>Associate Professor of Social Work; Coordinator, Social Work Field Placements</i> B.A., Messiah College, 1988; M.S.W., Temple University, 1994.	2008
Megan Gross , <i>Assistant Professor of Nursing</i> B.S., Robert Morris University, 2008; M.S., West Chester University, 2012.	2015
Pamela J. Linstedt , <i>Associate Professor of Nursing</i> B.S.N., Alderson-Broaddus College, 1977; M.S.N., Indiana University, 1982.	1997
Debra L. Loop , <i>Associate Professor of Nursing</i> B.S.N., Liberty University, 1986; M.S.N., University of Virginia, 1987.	1995
Kayla R. Riegel , <i>Assistant Professor of Occupational Therapy</i> B.S., M.S.O.T., College Misericordia, 2006; O.T.D. Misericordia University, 2011.	2016

Kristen L. Slabaugh, *Associate Professor of Nursing; Coordinator, DNP; FNP* 2011
B.S.N., Messiah College, 2005; M.S.N./F.N.P., The Pennsylvania State University, 2010.

Jeffrey A. Stroup, *Assistant Professor of Nursing* 2014
B.S., University of St. Francis, 2004; M.S.N., Mansfield University, 2013.

Lecturers

Diane Brockman, *Senior Lecturer in Psychology* 2015
B.A., Shippensburg University, 1992; M.A., Immaculata College, 1995; M.A., Temple University, 1999; Ph.D., Temple University, 2002.

Edwin (Sandy) Bush, Jr., *Senior Lecturer in Health and Human Performance; Director, Athletic Training Education Program; Athletic Trainer* 1983
B.S., Lock Haven State College, 1977; M.S., South Dakota State University, 1981.

Heather Dravk, *Senior Lecturer in French* 2014
B.A., Randolph-Macon Woman's College, 1993; M.A., University of Northern Iowa, 2002.

Amy E. Ginck, *Senior Lecturer in Modern Languages* 1998-2004; 2005
B.A., Messiah College, 1993; M.A., Bowling Green State University, 1995.

Scott Heisey, *Senior Lecturer in Engineering* 2015
B.S., Drexel University, 1979; M.S., The University of Texas at Austin, 1981.

Elaine Henderson, *Senior Lecturer in Music* 2001
B.M., B.M.E., Mars Hill College, 1975; M.M., Indiana University, 1977.

Michael S. Jones, *Senior Lecturer in Counseling* 2015
B.S., Freed Hardeman University, 1998; M.A., Ashland Theological Seminary, 2003.

Jeremy R. Kauffman, *Lecturer in Health and Human Performance; Head Athletic Trainer* 2009
B.A., Messiah College, 2003; M.S., McDaniel College, 2006.

Cynthia L. Lehman, *Senior Lecturer in Mathematics* 2015
B.A. Messiah College, 1994; M.Ed. Loyola College, 2001.

Michelle Lockwood, *Senior Lecturer in Engineering* 2015
B.S., Calvin College, 1992; M.S., University of Michigan, 1993.

Devin Manzullo-Thomas, *Lecturer in the Humanities, Director, Sider Institute for Anabaptist, Pietist, and Wesleyan Studies; Archives Specialist, Ernest L. Boyer Center* 2015
B.A. Messiah College, 2009; M.A. Temple University, 2012.

Jon D. Melton, *Senior Lecturer in Chemistry* 1989
B.A., Cornell College, 1980; Ph.D., Iowa State University, 1986.

Kristin L. R. Mouttet, *Senior Lecturer in Counseling, Marriage and Family Coordinator* 2012
B.A., Seattle Pacific University, 1995; M.S., John Brown University, 2000; Ph.D., Regent University, 2009.

Jodi D. Noble, *Senior Lecturer in Chemistry; Assistant Coach, Women's Basketball* 1994
B.A., Messiah College, 1984; M.S., The Pennsylvania State University, 1992.

Christine Perrin, *Senior Lecturer in English; Director of Writing Across the Curriculum* 2015
B.A., The Johns Hopkins University, 1991; M.F.A., University of Maryland, 2001.

Michelle Sanford, *Lecturer in Dietetics; Dietetic Internship Program Director* 2016
B.S., Messiah College, 1993; M.S. New England College, 2009.

Melinda Smith, *Lecturer of Applied Health and Director of Student Wellness* 2015
B.A., Messiah College, 2003; M.S., McDaniel College, 2007.

Judi K. Tobias, *Senior Lecturer in Health, Nutrition and Exercise Science; Head Volleyball Coach* 1996
B.A., Messiah College, 1980; M.Ed., Penn State University Capital Campus, 1996.

Brenda White, *Lecturer in Athletic Training* 2017
B.A., Messiah College, 1996; M.A., Washington College, 1999; M.Ed., Wilmington University, 2002.

Randall S. Zwally, *Senior Lecturer in Music* 2002
B.S., M.M., West Chester University, 1976, 1991; M.L.S., Clarion University, 2003.

Artist in Residence

Linda L. Tedford, *Artist-in-Residence, Department of Music; Director of Choral Activities* 1997
B.M., Covenant College, 1969; M.M., Temple University, 1973.

Librarians

Elizabeth Y. Kielley , <i>Librarian/Technical Services Coordinator</i> B.A., Gettysburg College, 1989; M.L.S., University of Pittsburgh, 1991.	1999
Lawrie H. Merz , <i>Librarian/Public Services Coordinator</i> B.Mus., Houghton College, 1979; M.S.L.S., Villanova University, 1983; M.A., Syracuse University, 1996.	1997
Sarah Myers , <i>Librarian/Collection Development Coordinator</i> B.A., Susquehanna University, 2012; M.S.L.S., Clarion University of Pennsylvania, 2013.	2016
Michael D. Rice , <i>Librarian/Electronic Resources Coordinator</i> B.A., Millersville University, 1978; M.S.L.S., Clarion University of Pennsylvania, 1984.	1992
Beth M. Transue , <i>Librarian/Collection Development Coordinator</i> B.S., Messiah College, 1993; M.S.L.S., Drexel University, 1998; M.E.T., Boise State University, 2013.	2006

Cocurricular Educators

N. Michael Blount , <i>Counselor/Program Director of Education Outreach, Men's Development and Sexuality Programming</i> B.S., Northwestern College, 1991; M.A., Bethel College (Minnesota), 1996.	1997
Abby Book , <i>Career Coach/Specialist for Student Alumni Engagement</i> B.A., Messiah College, 1998; M.A., Shippensburg University, 2000.	2015
Bryan E. J. Brunk , <i>Head Wrestling Coach; Game Management</i> B.A., Western New England College, 1998; M.S., University of Southern Maine, 2003.	2003
Atsen Bulus , <i>Head Men's Lacrosse Coach; Work Study/Game Management Supervisor</i> B.A., Calvin College, 2006; M.A., University of Michigan, 2010.	2014
Julie Cline , <i>Assistant Director of Student Involvement and Leadership Programs</i> B.A., Taylor University, 2011; M.A., Taylor University, 2013.	2016
Luiza Cliver , <i>Assistant Director of International Student Programs</i> B.A., Messiah College, 2012; M.A., Trinity College of Dublin, 2015.	2017
Jack T. Cole , <i>Executive Director of Athletics and Fundraising/ Assistant Professor of Higher Education and Athletics Leadership</i> B.A., Malone College, 1982; M.E., Ashland College, 1984.	1985
Douglas M. Curry , <i>Worship Pastor</i> B.A., Messiah College, 1990; M.A., Lancaster Bible College Graduate School, 2002; D.Min., Wesley Theological Seminary, 2011.	2002
Debra I. Danielson , <i>Assistant Director of Counseling</i> B.A., Messiah College, 1978; M.A., Ashland Theological Seminary, 1981.	1994
Aaron Faro , <i>Assistant Men's Soccer Coach, Athletic Recruitment Coordinator, AROMA Sports Ministry Director</i> B.A., Messiah College, 2003; M.A., Messiah College, 2015.	2015
Joy Fea , <i>Career Coach and Internship Program Coordinator</i> B.A., Colorado State University, 1989; M.A., Trinity Evangelical Divinity School, 1992.	2015
Dale E. Fogelsanger , <i>Head Cross Country Coach; Head Track and Field Coach</i> B.S., Messiah College, 1987; M.Ed., Shippensburg University, 1998.	1998
Scott R. Frey , <i>Head Coach, Women's Soccer; Locker & Laundry Supervisor/Game Management</i> B.S., Messiah College, 1984; M.A., Western Maryland College, 1990.	2000
Marcelle Giovannetti , <i>Program Director for Alcohol & Drug Education and Multicultural Students</i> B.A., Elizabethtown College, 2000; M.S., Shippensburg University, 2014.	2014
Brooke L. Good , <i>Head Field Hockey Coach; Assistant Athletics Director/Senior Women's Administrator/Title IX Deputy</i> B.S., Messiah College, 2003; M.Ed. Millersville University, 2006.	2010
Heather J. Greer , <i>Head Women's Lacrosse Coach; Director of Recreational Sports</i> B.A., Messiah College, 2002; M.S., Virginia Commonwealth University, 2005.	2007
Lyndsay Grimm , <i>Director of Residence Life</i> B.A., Roberts Wesleyan College, 2006; M.A., Geneva College, 2011.	2017
Kristin M. Hansen-Kieffer , <i>Vice Provost; Dean of Students; Assistant Professor in Health and Exercise Science</i> B.S., University of Nebraska, Kearney, 1987; M.S., South Dakota State University, 1991; Ed.D., University of South Dakota, 2000.	1999
Christina R. Hanson , <i>Director of Career and Professional Development Center</i> B.A., Messiah College, 2003; M.S., Shippensburg University, 2005.	2005

Sharde Hardy , <i>Assistant Director of Agape Center</i> B.A., Bluefield College, 2008; M.A., Penn State University, 2011.	2016
Josiah D. Hatfield , <i>Residence Director, Naugle Hall</i> B.A., Taylor University, 2009; M.A., Taylor University, 2012.	2012
Paula R. Hoffman , <i>Assistant Director of Residence Life-FYE, Bittner Hall</i> B.S., Southeastern University, 2007; M.S., Southeastern University, 2013.	2013
Scott K. Hwang , <i>Assistant Director of Multicultural Programs</i> B.A., Gordon College, 2005; M.A. Geneva College, 2011.	2013
Candace Johnson , <i>Counselor</i> B.A. Indiana University of PA, 2008; M.A., Shippensburg University, 2014	2017
Dwayne R. Keiffer , <i>Assistant Director of Career and Professional Development Center</i> B.S., Nyack College, 1989; M.S., Shippensburg University, 1997.	1997
Rhonda L. G. King , <i>Assistant Director of Residence Life/Housing</i> B.A., Eastern Mennonite University, 1992; M.S., Emporia State University, 2000.	2007
Steven E. King, Jr. , <i>Senior Associate Director of Athletics</i> B.S., Messiah College, 2006; M.S., Northeastern University, 2012.	2012
Patrick L. Lightle , <i>Head Baseball Coach; Game Management Coordinator</i> B.A., Ohio Dominican University, 1985; M.S., Eastern Kentucky University, 1987.	2012
Wendy S. Lippert , <i>Assistant Director of Off-Campus Programs</i> B.A., Messiah College, 1993; M.S., Shippensburg University, 2004.	2005
Bradley S. McCarty , <i>Head Men's Soccer Coach; Associate Director of Athletics</i> B.A., Messiah College, 1993; M.E., Wichita State University, 1997.	2001
Caleb Miller , <i>Residence Director, Miller Hall/Fry Apartments</i> B.S., Messiah College, 2014; M.S., Shippensburg University, 2016.	2016
Elizabeth Miller , <i>Certified Registered Nurse Practitioner</i> B.S.N., Messiah College, 1993; M.S.N., Widener University, 1998.	2015
Michael R. Miller , <i>Head Women's Basketball Coach/F.A.N. Fundraising</i> B.S., Messiah College, 1983; M.B.A., Shippensburg University, 1985.	1986
Stephanie Faith Minnich Kjesbo , <i>Director of the Intercultural Office</i> B.A., Central Penn College, 1999; M.A., Evangelical Theological Seminary, 2011.	2011
Beth Moshier , <i>Residence Director, Witmer Hall</i> B.A., Messiah College, 2005; M.A., University of Saint Joseph, 2009.	2017
Holly Motheral , <i>Head Volleyball Coach/Assistant Director of Athletics Communication</i> B.S., Houghton College, 2010; M.A., University of Rio Grande, 2012.	2016
Eleanor A. Muir , <i>Director of Engle Center for Counseling and Health</i> B.A., Wheaton College, 1980; M.S. Shippensburg University, 1986.	2013
Amy Nichols , <i>Residence Director, Hess/Kelly Apartments</i> B.A., Gordon College, 2012; M.A., Taylor University, 2015.	2015
Neryamn R. Nieves , <i>Assistant Director of Martin & Amigo Scholarship Programs</i> B.A., Messiah College, 1987; M.A., University of Delaware, 1991; Ph.D. Temple, 1999.	2014
Don Opitz , <i>College Pastor</i> B.A., Westminster College, 1983; M.Div., Gordon-Conwell Theological Seminary, 1989; Ph.D., Boston University, 1995.	2014
Ashley B. Sheaffer , <i>Director of the Agape Center</i> B.A., Messiah College, 2006; M.S., Shippensburg University, 2009.	2009
Geneve (Evie) R. Telfer , <i>Student Ministries Pastor</i> B.A., Vanderbilt University, 1984; M.Div., Asbury Theological Seminary, 1993; M.S., Loyola College in Maryland, 2009.	1997
Michael D. True , <i>Senior Associate, Talent Development and Marketing</i> B.S., Lancaster Bible College, 1979; M.Div., Trinity Evangelical Divinity School, 1984.	1991
Patrick W. Van Pelt , <i>Head Men's Basketball Coach; Recreational/Club Sports Supervisor</i> B.A., Messiah College, 1991; M.A., Penn State University, 1997.	1999

Kevin J. Villegas , <i>Director of Student Involvement and Leadership Programs</i> B.A., Messiah College, 1998; M.A., Fuller Theological Seminary, 2012.	2012
Bryce Watkins , <i>Residence Director, Sollenberger/Mellinger Apartments</i> B.S., Messiah College, 2012; M.A., Taylor University, 2014.	2014
Amy C. Weaver , <i>Head Softball Coach/Coordinator of Contracts & Travel</i> B.S., Messiah College, 1991; M.S., Western Maryland, 1998.	1998
Wendell S. Witter , <i>Coordinator of Cocurricular Adventure Programs/Adjunct Faculty</i> B.S., Messiah College, 1996; M.A., Wheaton College, 2000.	2007
Douglas M. Wood , <i>Associate Dean of Students</i> B.A., Houghton College, 1990; M.S., Alfred University, 1996.	1997
Rebecca Woodruff , <i>Assistant Director of Residence Life for Upperclass Experience</i> B.A., Messiah College, 2008; M.A., Shippensburg University, 2011.	2014

Emeriti Educators

Dates indicate years of service

Lois Beck , <i>Associate Professor Emerita of French and Communication</i> A.B. Gettysburg College, 1961; M.A. Middlebury College, 1967; M.A., Temple University, 1981.	1968-2014
Michael R. Brown , <i>Librarian Emeritus</i> B.A., Upland College, 1963; M.S.L.S., D.B.A., University of Southern California, 1965; M.A., Temple University, 1977.	1973-2006
Marvin L. Brubaker , <i>Professor Emeritus of Mathematics</i> A.B., Susquehanna University, 1961; M.A., Bowling Green State University, 1964; Ph.D., Lehigh University, 1973.	1983-2005
Barbara E. Burwell , <i>Assistant Professor Emerita of Health and Human Performance</i> B.S., Wheaton College, 1965; M.A., Montclair State College, 1985; Penn State University.	1985-2006
Ronald J. Burwell , <i>Professor Emeritus of Sociology and Anthropology</i> A.B., Wheaton College, 1965; M.Div., Trinity Seminary, 1968; M.A., Ph.D., New York University, 1972, 1976.	1985-2011
Susanna Bede Caroselli , <i>Professor Emerita of Art History</i> A.B., Brown University, 1969; M.A., Ph.D., Johns Hopkins University, 1972, 1980; Messiah College Scholar Chair, 2007-2009.	1996-2013
D. Wayne Cassel , <i>Professor Emeritus of Mathematics</i> B.S., Greenville College, 1959; M.A., Ph.D., Syracuse University, 1962, 1967.	1962-2000
Gene B. Chase , <i>Professor Emeritus of Mathematics and Computer Science</i> S.B., Massachusetts Institute of Technology, 1965; M.A., Cornell University, 1970; Gordon College; University of Washington; University of North Dakota; Ph.D., Cornell University, 1979.	1973-2007
Tom Chilcote , <i>Associate Professor Emeritus of Accounting</i> B.S., Ithaca College, 1976; M.B.A., Cleveland State University, 1979; C.P.A., Ohio, 1984, Pennsylvania, 1990; Chartered Mutual Fund Counselor, 1996; M.A., Liberty University, 2010; M.Div., Liberty University, 2014.	1987-2015
Stephen G. Cobb , <i>Professor Emeritus of Sociology</i> B.A., MacMurray College, 1963; M.Div., Garrett Theological Seminary, 1966; Ph.D., Northwestern University, 1970.	1989-2007
J. Barry DeRoos , <i>Associate Professor Emeritus of Computer Science</i> B.S., Calvin College, 1962; Ph.D., Wayne State University, 1966.	1983-2007
John W. Eby , <i>Professor Emeritus of Sociology</i> B.A., Eastern Mennonite College, 1962; M.S., Ph.D., Cornell University, 1970, 1972.	1994-2011
Peter S. Fraser , <i>Associate Professor Emeritus of Chemistry</i> B.A., University of Minnesota, 1959; Ph.D., University of Washington, 1977.	1982-2003
Dorothy J. Gish , <i>Academic Dean Emerita; Professor of Early Childhood and Family Education</i> B.A., Greenville College, 1957; M.Ed., Ph.D., The Pennsylvania State University, 1966, 1971.	1972-1998
Robert Heinemann , <i>Professor Emeritus of Communication</i> A.B., Wheaton College, 1965; M.A., Illinois State University, 1968; Ph.D., The Ohio State University, 1975.	1979-2005
Gerald D. Hess , <i>Professor Emeritus of Biology</i> B.A., Messiah College, 1965; M.S. Ph.D., Michigan State University, 1968, 1970.	1970-2010
William R. Higgins , <i>Professor Emeritus of Music and Computer Education</i> B.S., Lebanon Valley College, 1964; M.M., Boston University, 1967; D.Ed., The Pennsylvania State University, 1981.	1968-2004
Richard T. Hughes , <i>Distinguished Professor Emeritus of Religion</i> B.A., Harding University, 1965; M.A., Abilene Christian University, 1967; Ph.D., University of Iowa, 1972.	2006-2014

Kay L. Huber , <i>Associate Professor Emerita of Nursing</i> B.S.N.E., Wilkes College, 1969; M.P.A., The Pennsylvania State University, 1979; M.S.N., University of Pennsylvania, 1982; D.Ed., The Pennsylvania State University, 1993.	1984-2007
George P. Kimber , <i>Associate Professor Emeritus of Biblical Literature</i> B.A., Southern California College, 1962; M.Div., M.A., D.Min., Ashland Theological Seminary, 1969, 1975, 1979; Talbot Theological Seminary; Trinity Evangelical Divinity School; The Pennsylvania State University; Temple University.	1970-1992
Carolyn L. Kreamer , <i>Professor Emerita of Nursing</i> Diploma, York Hospital School of Nursing, 1969; B.S., Pennsylvania State University, 1975; M.S., University of Maryland, 1980; Ph.D., University of Texas at Austin, 1989.	1986-2014
Alden M. Long , <i>Professor Emeritus of Biblical Literature and Greek</i> A.B., Houghton College, 1950; M.A., New York University, 1953; B.D., Eastern Baptist Theological Seminary, 1957; S.T.M., Biblical Seminary in New York, 1958.	1951-1997
Martha M. Long , <i>Assistant Professor Emerita of English</i> B.S., Lock Haven State College, 1950; M.A., The Pennsylvania State University, 1964; M.S., Shippensburg University, 1978.	1964-1993
Vernon M. Martin, Jr. , <i>Associate Professor Emeritus of Accounting</i> B.A., Messiah College, 1966; B.S., Elizabethtown College, 1968; M.Ed., The Pennsylvania State University, 1971; University of Southern California; Tax Corporation of America; Wright State University; C.P.A., 1978; M.S., Widener University, 1994.	1981-2006
Yvonne E. Martin , <i>Assistant Professor Emerita of Business Administration</i> B.S., Indiana University of Pennsylvania, 1977; M.B.A., The Pennsylvania State University, 1979.	1981-2013
Mary Ann Mihok , <i>Associate Professor Emerita of Dietetics</i> B.S., The Pennsylvania State University, 1961; M.S., University of Pittsburgh, 1965; Ph.D., University of Maryland, 1997.	1982-2004
Ronald L. Miller , <i>Professor Emeritus of Music</i> B.S. in Ed., Indiana University of Pennsylvania, 1961; M.Mus., Ph.D., Indiana University (Indiana), 1967, 1974.	1968-2003
Benjamin W. Myers , <i>Associate Professor Emeritus of Biology</i> A.B., Messiah College, 1962; M.S., Kansas State Teacher's College, 1966; Ph.D., Purdue University, 1970.	1966-1999
Paul W. Nisly , <i>Professor Emeritus of English</i> A.A., Hession College, 1963; B.A., Eastern Mennonite College, 1965; M.A., M.Phil., Ph.D., University of Kansas, 1969, 1972, 1974; City University of New York.	1972-2006
Theodore L. Prescott , <i>Professor Emeritus of Art</i> B.A., Colorado College, 1967; M.F.A., Rinehart School of Sculpture, The Maryland Institute College of Art, 1970.	1980-2009
Clyde A. Ross , <i>Professor Emeritus of English</i> B.S., Gordon College, 1954; M.R.E., M.Div., Central Baptist Theological Seminary, 1956, 1957; M.Ed., Worcester State College (Massachusetts), 1963; M.A., Geneseo State University College (New York), 1970; Columbia University; Oxford University.	1968-1997
Dorothy A. Schrag , <i>Assistant Professor Emerita of Music</i> B.Mus.Ed., Drake University, 1940; M.Mus., Central Conservatory of Chicago, 1952; School of Sacred Music; Union Theological Seminary; New School for Music Study; Madison College.	1953-1956; 1959-1983
Norman E. Shank , <i>Professor Emeritus of Chemistry</i> B.S., Eastern Mennonite College, 1965; Ph.D., The Ohio State University, 1969.	1962-2000
Joseph K. Sheldon , <i>Professor Emeritus of Biology and Environmental Science</i> B.S., The College of Idaho, 1966; Ph.D., University of Illinois, 1972.	1992-2007
E. Morris Sider , <i>Professor Emeritus of History and English Literature</i> A.B., Th.B., Upland College, 1952, 1953; M.A., University of Western Ontario, 1955; Ph.D., State University of New York at Buffalo, 1966; University of Toronto.	1963-2000
Ronald R. Sider , <i>Professor Emeritus of Music</i> B.Mus., M.Mus., Ph.D., Eastman School of Music, University of Rochester, 1957, 1959, 1967; A.A.G.O., 1962; Oakland University; State University of New York at Binghamton; Westminster Choir College.	1958-1995
Martha O. Solomon , <i>Assistant Professor Emerita of Nursing</i> B.S.N., St. Joseph College, 1973; M.S.N., University of Virginia, 1983; Certified Pediatric Nurse, R.N., B.c., 1989.	1983-2007
Richard A. Stevick , <i>Professor Emeritus of Psychology</i> B.A., Roberts Wesleyan College, 1961; M.S., Syracuse University, 1965; Ed.D., Texas Tech University College of Education, 1979.	1980-2005
Terry L. Stoudnour , <i>Professor Emeritus of Education</i> B.A., Elizabethtown College, 1963; M.Ed., Shippensburg University, 1965; Temple University; Ed.D., Nova Southeastern University, 1978.	1968-1972, 1974-2004
Anita N. Voelker , <i>Professor of Education</i> B.S., Frostburg State University, 1973; M.S., Johns Hopkins University, 1976; Ph.D., University of Maryland, 2006.	1993-2014

Ronald J. Webb, *Professor Emeritus of Business*

B.A., Wheaton College, 1964; M.B.A., D.B.A., University of Maryland, 1996, 1973.

1980-1998; 2004-2008

John R. Yeatts, *Professor Emeritus of the Psychology of Religion*

B.A., Messiah College, 1969; M.Div., Princeton Seminary, 1972; Ph.D., Purdue University, 1981.

1980-2013

Velma A. Yoder, *Associate Professor Emerita of Education*

B.S., M.Ed., Ph.D., The Pennsylvania State University, 1969, 1970, 1988.

1989-2012

ACADEMIC CALENDAR 2018–2019

FALL SEMESTER	August 28	Tuesday	Community Day
	August 29	Wednesday	Community of Educators' Retreat
	August 31-September 6	Friday-Friday	Welcome Week/Orientation
	September 4	Tuesday	Classes begin
	October 11-12	Thursday-Sunday	Fall break
	October 15	Monday	Classes resume
	October 20	Saturday	Homecoming
	November 21	Tuesday	Follows Thursday course schedule
	November 21-23	Wednesday-Sunday	Thanksgiving break
	November 26	Monday	Classes resume
	December 14	Friday	Last day of classes
December 17-20	Monday-Thursday	Final exams	
December 21-January 8	Friday-Tuesday	Winter break	
SPRING SEMESTER			
JANUARY TERM	January 9	Wednesday	Classes begin
	January 21	Monday	Martin Luther King, Jr. Day (No classes)
	January 30	Wednesday	Term ends
SPRING TERM	January 31-February 3	Thursday-Sunday	January Term break
	February 4	Monday	Classes begin
	March 16-24	Saturday-Sunday	Spring break
	March 25	Monday	Classes resume
	April 11	Thursday	Service Day (no day classes) (Rain date April 16)
	April 19-22	Friday-Monday	Easter break
	April 23	Tuesday	Classes resume
	May 7	Tuesday	Last day of classes (Follows Thursday course schedule only if Service Day is on April 11th)
	May 8	Wednesday	Reading Day
	May 9-14	Thursday-Tuesday	Final exams
May 17-18	Friday-Saturday	Commencement Weekend	
May 20-24	Monday-Friday	Faculty: May Development Week	
MAY TERM	May 27-June 14	Monday-Friday	Approved cross-cultural courses
SUMMER SESSION	June 3-July 26	Tuesday-Monday	Undergraduate on-line courses

CONTACTS DIRECTORY

717-796-1800

Academic Records, Transcripts	Ext. 6012	Intercultural Office	Ext. 2131
Admissions	Ext. 6000	Internship Center	Ext. 5099
Agapé Center for Service and Learning	Ext. 7255	Learning Center (tutoring)	Ext. 7209
Alumni and Parent Relations	Ext. 5252	Library (Murray)	Ext. 6006
Boyer Center	Ext. 5077	Post Office	Ext. 6026
Business Office	Ext. 6004	Registrar	Ext. 6012
Career and Professional Development Center	Ext. 6016	Safety, Department of	Ext. 6005
Collaboratory	Ext. 7226	Student Employment (off campus)	Ext. 6016
College Ministries	Ext. 6017	Student Employment (on campus)	Ext. 2900
Dean of Students	Ext. 5234	Student Fees and Financing	Ext. 6004
Disability Services	Ext. 7258	Student Government Association	Ext. 5093
Engle Health Center	Ext. 6035	Student Housing	Ext. 5239
Financial Aid	Ext. 6007	Student Programs	Ext. 5240
Gifts, Bequests, and Annuities	Ext. 5065	Writing Center	Ext. 6530
Information Technology Services (computer help for students)	Ext. 3333		

To facilitate prompt response, please address inquiries to Messiah College and to the appropriate office as listed above.

College office hours are from 8:00 a.m. to 5:00 p.m. Monday through Friday. College staff are available at other times by appointment. Appointments should be scheduled in advance by calling the College and asking for the appropriate office.

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