

How I Incorporated Sustainability into BIOL 110 in Fall 2009

- Learning Objectives:
 - To be able to explain the concept of “sustainability” and discuss how various environmental toxins affect physiology.
 - To recognize how issues of sustainability affect your own lives and how they will be important to understand as a professional in the health care field (or elsewhere).
- During each unit I talked about environmental toxins and how they can affect our physiology where appropriate
- I modified my BIOL 110 Online discussion board assignments as a way to review for the final exam (see below) by putting students into groups by topic and having them read and answer the questions collaboratively. Then, the class as a whole discussed each topic.

Biology 110: Structure and Function I

Instructor Information

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Office hours: Monday 3:00pm-5:00pm and Wednesdays 11:00am-12:00pm or by appointment

Required Materials

Textbook: Principles of Anatomy and Physiology with Wiley Plus, 12th ed. (2009) by Tortora and Derrickson, John Wiley and Sons, Inc.

You are responsible for all material covered in class as well as material in the required readings listed in the syllabus. I suggest that you bring the current chapter to class with you for reference. The binder-ready version makes this much easier than having to bring the entire textbook with you.

Learning Objectives

- To be able to use correct terminology when referring to anatomical structures and physiological processes.
- To recognize and describe the interrelationships between structure and function.
- To explain the basic concepts of homeostasis and identify how different homeostatic mechanisms function within each of the organ systems.
- To identify and describe the functional roles of the nervous and endocrine systems in communication, control, and integration of all body systems.
- To identify and describe the functional roles of the integumentary, skeletal, and muscular systems.
- To write an essay explaining a physiological process in a specific organ system or apply acquired knowledge to specific clinical case studies.
- To be able to explain the concept of “sustainability” and discuss how various environmental toxins affect physiology.

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- To recognize how issues of sustainability affect your own lives and how they will be important to understand as a professional in the health care field (or elsewhere).

Course Expectations

1. Attend every lecture and notify the professor ahead of time if you will miss a class.
2. Come to each lecture prepared for the material that is to be covered that day (read ahead in the course text).
3. Be an active participant during the lectures.
4. Spend time after each class reviewing the material. **For every hour you spend in lecture, you should spend 2-3 hours outside of class studying.** Therefore, you should **spend at least 6-9 hours per week studying** for this 3 credit course.
5. Behave appropriately during class. Examples of this are: being courteous and respectful of others, refraining from engaging in side conversations, turning OFF cell phones during class, etc (you get the idea, right?). Inappropriate behavior will result in removal from the course.

Attendance

You should attend every class. Attendance will be directly calculated into your final grade.

Angel

Angel can be accessed at www.scranton.edu/angel. Please login and make sure that your contact information is correct (**especially your e-mail address**), as I will use angel to send e-mails to the class. Check the Angel site at least weekly because new links and course information may be posted. This information will help you understand and study the material from the text. You are responsible for the information posted on Angel unless specified otherwise. Further instructions, grading criteria and helpful APA web links are available on the Angel web site.

Grading

The student's final grade will be based on the following criteria:

Exams I-V	500 points (100 points each)
Comprehensive Final Exam	150 points
Quizzes I-V	100 points (25 points each)
Homework Assignments I-X	100 points (10 points each)
Attendance and Participation	50 points
TOTAL POINTS POSSIBLE	900 points

Final grades will be based on the total points earned divided by the total points possibly multiplied by 100.

Example: $(720 \text{ points earned} / 900 \text{ points possible}) * 100 = 80\%$

Grade Scale

A	100-94 %	C	76-73
A-	93-90	C-	72-70
B+	89-87	D+	69-66
B	86-83	D	65-60
B-	82-80	F	59 or less
C+	79-77		

Homework Assignments

In order to assist you in learning the material covered this semester homework assignments will be given frequently. **Assignments must be turned into the professor at the beginning of class on the day that they are due or submitted on Angel in the allotted time period.** Late assignments will **NOT** be accepted, a grade of 0 will be given. Fifteen homework assignments will be given throughout the semester. The 5 homework assignments directly preceding an exam will be optional extra credit assignments (listed as "optional homeworks A-E" on the syllabus). This will be your only chance to earn extra credit for the semester. These homework assignments must be completed as they are assigned in order to receive credit for them; they cannot be completed in bulk at the end of the semester.

Quizzes

Due to the intense nature and the volume of material covered in this course, five quizzes will be given throughout the semester. The format of the quizzes may include multiple choice, true/false, matching, short answer, and fill-in-the-blank questions. You may also be asked to identify anatomical landmarks on figures. Each quiz may cover any and all new material not covered on a previous quiz or exam (unless otherwise stated in class). There will be **no make-up quizzes**, however you will be able to drop your lowest quiz grade (if you are absent on the day a quiz is given you will receive a zero on that quiz and that would be the quiz grade you would drop).

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Examinations

Five examinations will be given during the semester and a sixth, comprehensive final examination will be given during finals week. Exam dates are indicated on the tentative lecture schedule. The format of all exams may include multiple choice, true/false, matching, fill in the blank, short answers (a few sentences to a paragraph), and essays (up to a page). You will not be able to keep your exams, however you are welcome to stop by during my office hours or schedule an appointment to review previous exams. During exam review copying questions is not permitted.

NOTE: NO MAKE-UP EXAMS WILL BE GIVEN. Students who have an excused absence (this means they have spoken to the instructor prior to the exam about missing it and have a valid, approved reason) may be eligible for a pro-rated score (average on other 4 exams = score you will be given on missed exam).

Statement on Academic Honesty

Each student is responsible for understanding and complying with The University of Scranton's Academic Code of Honesty (www.scranton.edu/student_handbook). Cheating and plagiarism are NOT tolerated. Consider this your **first and only** warning.

As written in the Student Handbook, *plagiarism* is described by the handbook of the Modern Language Association as "giving the impression that you have written or thought something that you have in fact borrowed from someone else." Examples of plagiarism include using another person's words without citation and submitting someone else's work as your own. Plagiarism also applies to tests and quizzes and includes looking at someone else's paper, communicating with another student, or using unauthorized materials (i.e. notes, cell phones, etc). Any student who violates this policy in any manner will be subject to a grade of F for the course and may be expelled from the University of Scranton.

Please note: Plagiarism of any kind is grounds for dismissal from this course and from the University of Scranton.

Students with Disabilities

In order to receive appropriate accommodations, students with disabilities must register with the Center for Teaching and Learning Excellence and provide relevant and current medical documentation. Students should contact Mary Ellen Pichiarello (Extension 4039) or Jim Muniz (Extension 4218), 5th floor, St. Thomas Hall, for an appointment. Visit <http://www.scranton.edu/disabilities> for more information.

Writing Center

The Writing Center provides one-on-one consultations focused on improving your writing skills at all stages of the writing process. To meet with a writing consultant, stop by during the Writing Center's regularly scheduled hours. You may also call (941-6147) for an appointment or request an appointment by completing the Writing Assistance Request Form online. Online Consultations are also available. Visit <http://www.scranton.edu/writing-center> for more information.

Sexual Harassment

Sexual harassment is unwanted sexual or gender based behavior that creates an environment that would reasonably be perceived and is perceived by the complainant as hostile or abusive. Any student, faculty, or staff member who feels they have been sexually harassed should contact The Office of Equity and Diversity at the following website: <http://academic.scranton.edu/department/diversity/training.shtml#>

School Closing

In cases of inclement weather, check your email and Angel to be sure class will be held.

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Tentative Lecture Schedule:

Date	Lecture Topic	Reading
Aug 25	Course Introduction; Levels of Structural Organization; Anatomical Terminology	p2-5, p12-21
Aug 27	Homeostasis: Concept and Feedback mechanisms; Chemistry Review (ions and water) COMPLETE HOMEWORK #1	p8-12; p29-33; p39-40
Sept 1	Cytoplasm and Organelles STUDY FOR QUIZ #1	p62-87
Sept 3	QUIZ #1 Cell Division COMPLETE HOMEWORK #2	p93-101
Sept 8	Cellular respiration COMPLETE OPTIONAL HOMEWORK A STUDY FOR EXAM #1	p977-997 (focus on handout and slides)
Sept 10	Exam 1	Ch 1-3, part of Ch 25
Sept 15	Cellular Junctions; Begin Tissue Types and Functional Roles COMPLETE HOMEWORK #3	p109-112; p112-123;
Sept 17	Finish Tissue Types and Functional Roles; Membranes STUDY FOR QUIZ #2	p123-135; p135-137
Sept 22	QUIZ #2 Structures and Functions of the Skin COMPLETE HOMEWORK #4	p147-161
Sept 24	Wound Healing COMPLETE OPTIONAL HOMEWORK B STUDY FOR EXAM #2	p162-164
Sept 29	Exam 2	Ch 4, 5
Oct 1	Bone Formation and Growth STUDY FOR QUIZ #3	p175-190
Oct 6	QUIZ #3 Calcium Homeostasis; Joints COMPLETE HOMEWORK #5	p 190-191; p264-270 and p276-279
Oct 8	Skeletal Muscle Tissue; Skeletal Muscle Contractions; Skeletal Muscle Tension Development; Muscle Fiber Types COMPLETE OPTIONAL HOMEWORK C STUDY FOR EXAM #3	p301-310; p311-320; p320-324; p324-325
<i>Oct 13</i>	<i>No class, Fall Break ☺</i>	
Oct 15	Exam 3	Ch 6, 9, 10
Oct 20	Introduction to the Nervous System Anatomy of Nervous Tissue COMPLETE HOMEWORK #6	p 415-426
Oct 22	Resting Membrane Potential, Graded Potentials, Action Potentials STUDY FOR QUIZ #4	p 426-440
Oct 27	QUIZ #4 Signal Transduction/Neurotransmitters We may cover Regeneration and Repair of Nervous Tissue	p 441-451; p452-454

Oct 29	Anatomy of spinal cord, nerves; Sensory and Motor Tracts, Reflexes COMPLETE OPTIONAL HOMEWORK D STUDY FOR EXAM #4	p 460-470; p480-488
Nov 3	Exam 4	Ch 12-13
Nov 5	The Brain COMPLETE HOMEWORK #7	p495-536
Nov 10	The Autonomic Nervous System: The Sympathetic and Parasympathetic Divisions STUDY FOR QUIZ #5	p425-426; p546-561
Nov 12	QUIZ #5 Autonomic Reflexes; Introduction to the Somatic Nervous System; Sensation COMPLETE HOMEWORK #8	p562-563; p569-573
Nov 17	Somatic Sensory Pathway COMPLETE HOMEWORK #9	p573-582
Nov 19	Somatic Motor Pathway; Integrative Functions of Cerebellum COMPLETE OPTIONAL HOMEWORK #14 STUDY FOR EXAM #5	p583-589; p590-592
Nov 24	Exam 5	Ch 14-16
<i>Nov 26</i>	<i>No class, Thanksgiving</i>	
Dec 1	Introduction to the Endocrine System, Mechanism of Hormone Actions COMPLETE HOMEWORK #10	p642-646; p646-650
Dec 3	Hypothalamus/pituitary gland and introduction to specific hormones STUDY FOR FINAL EXAM!!!	p650-658
TBA	CUMULATIVE Final Exam	Ch 1-6, 9, 10, 12-16, 18