2019-2020

Data Analytics
Graduate Student Guidebook

Oregon State University

Data Analytics Masters and Certificate
Online program
2019-2020

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A. INTRODUCTION

The purpose of this guidebook is to acquaint students with the organization, policies, and procedures of the Data Analytics programs offered by the Department of Statistics at Oregon State University. Additional material about the department and campus offerings can be found on the Web at: http://stat.oregonstate.edu. Our online program is discussed at https://ecampus.oregonstate.edu/online-degrees/graduate/data-analytics/. All graduate program at Oregon State University (OSU) fall under the authority of the Graduate School, and so students should be aware of all Graduate School policies and procedures, available at gradschool.oregonstate.edu.

A.1.   Fields of Study

The Department of Statistics offers online graduate programs leading to the Master of Science (M.S.) or Graduate Certificate in Data Analytics. The Graduate Certificate requires five core courses, which are a subset of the courses required for the M.S. degree.

A.2.   Program Learning Objectives

The program learning objectives for the Master's programs are:

1. Gain a thorough understanding of the theoretical and applied principles of statistics.
2. Demonstrate the ability to summarize a technical report and/or statistical analysis and interpret results. Also shows the ability for broader implication of application in the statistical field.
3. Communicate statistical concepts clearly and professionally in oral form.
4. Demonstrate preparedness to provide guidance in statistical design and analysis.

A.3.   Terminology

In reading what follows, it is useful to have the following terminology:

- **Department Office:** Located on campus at Weniger 239, many student inquiries can be answered in this office. You can contact the office at 541-737-3366 or statoff@science.oregonstate.edu.

- **Department Head:** The Department Head is the final arbiter of decisions within the Department. Dr. Lisa Ganio is the Department Head and Director of Data Analytics.
- **Director of Data Analytics (DDA):** The Director of Data Analytics is the faculty member in the Department who has most contact with the Data Analytic students. Among other things, the DDA communicates with and counsels prospective students, interprets Departmental policy for current students, and advises students regarding their progress in the Department.
- **Advisor:** All Master's students in the program are assigned a faculty member as an advisor (or major professor) during the fall term after they enter the Program. Your advisor is responsible for helping you through the program and they should be your 'first stop' for answers to questions about the program or OSU requirements.
- **Graduate Committee:** After the completion of Fall term, the student chooses additional two committee members from the Data Analytics faculty with the help of the major professor, to make up their graduate committee. The committee will review the student's program of study and participate in the student's oral exam. You can find OSU's requirements for your committee at https://gradschool.oregonstate.edu/progress/graduate-committee .
- **Quarter System:** OSU and the online program are on a quarter system. The Data Analytic curriculum is taught in the Fall, Winter, and Spring quarters and classes are 11 weeks long including one week for finals. Summer classes for this program are not offered. The official academic calendar can be found at https://registrar.oregonstate.edu/osu-academic-calendar .
- **OSU Graduate School:** The Graduate School oversees all graduate certificate and degree programs at OSU and implements the minimum policies and regulations for graduate education. Each graduate program at OSU establishes its own requirements but is also subject to all the requirements of the graduate school. The Graduate School requires that all graduate student adhere to requirements for satisfactory academic progress and continuous enrollment as well as other milestones prior to graduation. Please see https://gradschool.oregonstate.edu . The Graduate School supports students throughout the academic lifecycle, from admissions to degree completion.
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A.4. General Contact Information

Important department contacts:

- Statistics Department Head: Dr. Lisa Ganio (lisa.ganio@oregonstate.edu 541-737-6577)
- Director of Data Analytics: Dr. Lisa Ganio (lisa.ganio@oregonstate.edu 541-737-6577)
- Graduate Program Coordinator: Maggie Neel (neel@science.orgonstate.edu; 541-737-3366)
- Contact for entry of Course Overrides: Maggie Neel or Mary Gardner (statoff@science.oregonstate.edu 541-737-3366)
- Program website address: Https://ecampus.oregonstate.edu/online-degrees/graduate/data-analytics/
- Graduate School: The Graduate Schools offers an array of professional development opportunities specific to the success of graduate students. Topics covered in these offerings include: research and ethics, teaching and facilitation, writing and communication, leadership and management, career skills, grad life and wellness. Please visit the Graduate School links to browse our student success offerings.

A.5. Data Analytics Online Classroom

Our philosophy for designing online courses: Use OSU-supported technology to best deliver the content in the most flexible way while keeping the technology transparent to you.

We use "CANVAS", a centralized platform where you can log into your classroom. There you can get assignments, interact with faculty and peers, reply to message boards, and more.

Our courses are created in partnership with our faculty and our distance-education instructional designers to ensure a learning experience that is tailored to the subject matter and the expected learning outcomes. We approach the development of our online courses very seriously, so that they mirror the exact same quality content as you would expect on campus.

A.6.   Steps after receiving your admission notification

Visit the ecampus "Getting started" page: https://ecampus.oregonstate.edu/students/newly-admitted/graduate.htm. This page will lead you to links that will help you register for class including:

- Let the office know your joining us
- Setting up your ONID (OSU Network ID)
- Applying for financial aid
- Please work directly with financial aid concerning your eligibility for aid. You must be enrolled in a minimum of 5 credit hours per term to receive funding.
- Register for classes
- Tuition, fees and billing

A.7.   Preparing for your first day of class, September 25, 2019

- Visit our ecampus website: https://ecampus.oregonstate.edu/students/newly-admitted
- Check your computer for minimum requirements needed for Ecampus online courses in Canvas: https://ecampus.oregonstate.edu/forms/browsercheck
- Complete new student orientation, "Being a successful online learner"
- Log into your course.
- Consider downloading the mobile app
- Explore your course, and explore Canvas, the online platform that delivers course content to you.
- Read the Syllabus, noting assignments and reading deadlines, exam policies, and timing
- Get to know your instructors and peers
- Email with your academic advisor (Assigned after start of Fall term)
- Get started with your first lesson

A.8.   Academic and Student Support Resources

OSU offers a wide array of academic and student support resources designed to meet your online graduate student needs. The following link will lead you to all the resources: https://ecampus.oregonstate.edu/services/student-services/

- Ecampus Success Counseling
- Online Tutoring
- Career Services
- Disability access services
- OSU Libraries
- Canvas 24/7 support
- Student communities
- Success blog

- Student Stories
- ASC Learning corner
- Academic Success Courses
- OSU Learning Centers

A.9.   Requirements

University requirements for advanced degrees are set forth in the Oregon State University General Catalog and Schedule of Classes, which is available at: http://catalog.oregonstate.edu/Default.aspx?section=Graduate

Policies governing all graduate programs are found at https://gradschool.oregonstate.edu/faculty/graduate-program-policies

The department has certain requirements of its own in addition to those of the University. These departmental requirements are set forth in this guidebook. It is the student's responsibility to be aware of and to satisfy both Graduate School and departmental requirements.

A.10.   Petitions

A student who wants to deviate from Department requirements should first discuss the matter with their advisor or the Director of Data Analytics. A written petition, signed by the student and the advisor, is then sent to the Director of Data Analytics. The petition must be specific with regard to the requirements involved and the circumstances that justify deviation from these requirements. The Director will review the petition with the Data Analytics Graduate Committee. If the Data Analytics Graduate Committee denies the petition, its decision may be appealed to the Department Chair.

For more information, a copy of "*Grievance Procedures for Graduate Students*" may be obtained in the Graduate School office or at: gradschool.oregonstate.edu/progress/grievance-procedures.

A.11.   Academic Honesty

Oregon State University expects students to be honest in their academic work. Academic dishonesty is defined as an intentional act of deception in which a student seeks to claim credit for the work or effort of another person or uses unauthorized materials or fabricated information in any academic work. It includes cheating (the intentional use or attempted use of unauthorized materials, information or study aids), fabrication (the intentional falsification or invention of any information), assisting in dishonesty or tampering (intentionally or knowingly helping or attempting to help another commit an act of dishonesty or tampering with evaluation instruments and documents), and plagiarism (intentionally or knowingly representing the words or ideas of another person as one's own). Please understand that our instructors review all assignments for academic honesty.

Academic dishonesty may result in academic penalties including failing an assignment, failing a course, and being prohibited from pursuing work within an academic major or college/school. Further information regarding academic honesty policies may be obtained at: https://studentlife.oregonstate.edu/studentconduct/academicmisconduct .

B. APPLICATION PROCESS

B.1.   Prerequisites

An undergraduate statistics course at the level of ST 351 (Introduction to Statistical Methods) or equivalent is a prerequisite for the program. Students who wish to review topics that are discussed in this class should visit this website for topics covered in ST 351: (http://catalog.oregonstate.edu/CourseList.aspx?subjectcode=ST). You must have an understanding of study design, probability distributions, and the fundamentals of confidence intervals and hypothesis tests. ST351 is an upper division course in statistics that includes the use of a statistical computing package (e.g. R, SAS, SPSS) to carry out basic statistical analyses. The course topics include study designs, descriptive statistics and exploratory data analysis tools, data collection and recording, probability distributions, sampling distributions for means and proportions, hypothesis testing and confidence intervals for means and proportions in one- and two-sample inference, and chi-square tests. Students who have completed such a course should be able to do the following:

1. Describe the characteristics of, and explain the process involved in, crafting a sound research question.
2. Identify appropriate data collection methods and justify your reasoning as to why a particular method may be considered appropriate for the stated research question.
3. Display the data in a manner that provides information that can be used to help answer the research question.
4. Obtain and evaluate statistical evidence (e.g. a confidence interval) that can be used along with exploratory tools to answer research questions.
5. Use statistical evidence and exploratory data analysis tools to answer a research question and communicate the answer in an accurate and interpretable fashion.

In addition, a statistics software package, R, will be taught and used in the statistics core courses. You can review the basics of R by attending this free online course: https://www.datacamp.com/courses/free-introduction-to-r.

B.2.   Application Deadlines

The program accepts new students to begin in Fall term of each year. Domestic student may apply any time prior to August 1 and international students may apply any time before July 1. For those applicants who do not meet our program's prerequisite background, we offer the Data Analytics' prerequisite course (ST 351) during the prior summer term (June through August). Potential applicants, who may wish to take this prerequisite course, are encouraged to apply prior to March 1 so that their application is reviewed prior to deadlines for summer term enrollment.   The final deadline for consideration for Fall term for domestic students is August 1, and for international applicants the deadline is June 1.

B.3.   Application Documents

The following documents are required in the application process.

B.3.1 Statement of Preparedness

- A statement of your career and academic objectives and preparedness is required with your application. Please address each for the following 4 questions succinctly – we are not expecting more than the equivalent of 2 typewritten pages. What is your math background and experience?
- What do you hope to get out of this graduate program?
- Describe your experience working with data
- Describe your experience with computing and programming (software, coding)
- Describe a time you experienced conflict and how you approached/resolved it.

B.3.2 Letter of Reference

As part of the application for admission, you must provide the names and email addresses of reference writers. Letters of reference or recommendation (you will hear them called both) are a significant part of your application for graduate admission. When reading your letters of recommendation, the admissions decision-makers are looking for evidence of critical thinking skills, problem solving and quantitative skills, motivation, persistence, ability to learn and excellent communication skills.

Your choice of letter writers and how you communicate with them influences the quality and relevance of your letters. The reference letter writers are not required to be from a university setting. To assure your letters are helpful to your application for admission, remember to:

1) Ask only people who know you well and can address the points mentioned above - writers should be professional and academic contacts; do not include personal references which are irrelevant to application reviewers;
2) Contact potential letter writers well ahead of your application deadline, preferably two months in advance and tell the writer your deadline;
3) Do not assume the person will write a letter. Ask them to confirm their willingness *or* inability to write a letter for you;
4) Make writing the letter as convenient as possible and provide the following to your letter writers:
   - Describe the program at Oregon State to which you are applying. Explain that the Data Analytics program is a non-thesis, fully online program. Explain to them what the admissions decision makers will be looking for in their letter.
   - Provide the writer with your current resume or c.v. so they have information readily available
   - Explain the process for submitting the letter to your letter writer. They will be able to upload their letter into our system.
   - Say thank you!

Your final task is to periodically check the online application tracking system to see if your letters have been received. The letter of reference system triggers an email to each reference writer and enables them to submit a confidential electronic letter for you. Upon receipt, electronic letters are added to your file each working day.

If you choose to not use the letter of reference system, please ask your letter writers to mail confidential letters to the Graduate School; in most cases, these will be added to your file within one week of receipt. If the program to which you are applying accepts unofficial letters (meaning you handled the opened letters), you can upload letters into your application in the document upload section.

http://gradschool.oregonstate.edu/admissions/process#references

B.3.3 Transcripts

Transcripts from all your higher education are required. Official transcripts are not required during the application process. International transcripts must be submitted with a certified English translation.

Upon acceptance, the graduate school will request official transcripts. If you are sending official electronic transcripts from *Parchment*, *E-Scrip Safe*, or *National Clearinghouse*, please select "**Oregon State University-Graduate Admissions**" as the recipient.

Or if sending by postal mail, <u>sealed</u> official paper transcripts can be sent to:

> Graduate School
> Oregon State University
> Heckart Lodge
> 2900 SW Jefferson Way
> Corvallis, OR 97331

If you have additional questions regarding your transcripts, please feel free to contact Graduate Admissions at <u>graduate.admissions@oregonstate.edu</u>

B.3.3   Admission requirements

The GRE or GMAT are **not** required for this program.

The Graduate School can admit domestic students with a GPA greater than 2.75 but less than the required 3.0 GPA in an "Academic Conditional Status". Graduate students admitted "academic conditional" must receive B or better grades on the first 18 credits of graded coursework to meet the condition of admission. It is up to the Data Analytics program to decide whether they would like to accept an "academic conditional" student.

B.3.4   Language Requirements

No foreign language is required for the Masters of Data Analytics degree.

B.3.5   International Students:

Since the Data Analytics program is online, visa documents are not issued for the program.
International students are required to take the TOEFL and submit scores with their applications. The graduate school only accepts IELTS academic exams. The TOEFL can be waived, if the student has received a degree in the United States. International transcripts must be submitted with a certified English translation.

B.4.   Transfer Credits

Previously earned credits will be reviewed for transfer into the program after an application and official transcript are submitted for admission. A maximum of 15 graduate-level credits may be transferred into a Master's degree and a maximum of 6 graduate-level credits may be transferred into the Graduate Certificate. However, if the credits are earned at a school other than OSU, the credits must not have been used as part of an awarded prior degree. Further information about transfer credits can be found in the graduate catalog. Transfer credit must comply with all policies in this section of the catalog.
http://catalog.oregonstate.edu/ChapterDetail.aspx?key=38#Section1802

B.5.   Provisional Admission

Students are admitted into the master's program on one of two bases: full admission or provisional admission. Full admission may be granted to students who meet all of the admissions requirements. Students who meet all of the requirements except for the prerequisite ST351 or its equivalent may be granted provisional admission. When the ST351 prerequisite or its equivalent is completed, the Graduate School will remove the provisional status. The ST351 requirement must be completed satisfactorily before the student can start their Fall term.

C.   STEPS TO TAKE AFTER RECEIVING THE ACCEPTANCE LETTER

C.1.   Timing of program

The Master's degree programs in Data Analytics typically takes five academic quarters of full-time enrollment to complete. The Data Analytics program can be taken part time; one course per quarter or two to three courses per quarter. 45 credit hours are required for the curriculum, please read the web pages to see details on the timing of the offered courses.
- Full time example: 3 classes (9 credits) per term, estimated completion is 5 terms or 15 academic months (1.5 years/actual)
- Part time example: 1 class, (3 credits) per term, estimated completion is 15 terms or about 45 academic months (5 years/actual)

C.2.   Program Progression

A student is expected to make satisfactory progress toward a degree. Continuous enrollment is required, with a minimum enrollment of 3 credits per term, with exception of summer. A leave of absence is required, if an absence is needed. A student whose progress is unsatisfactory may be dismissed from the program. If the Graduate Data Analytics Committee decides that a student's progress is unsatisfactory, then the student is notified and is given the opportunity to submit a written explanation to the Committee concerning any special circumstances that he or she would like to be considered. The Committee reviews the case and makes a recommendation to the department's head who makes the final decision on whether or not to dismiss the student from the program. A student who has been dismissed from the department may continue to take courses only if he or she is accepted in another department or program or if the Graduate School grants the status of special student.

D.   THE M.S. DEGREE IN DATA ANALYTICS

D.1.   Course of study for M.S. Degree in Data Analytics

The M.S. degree requires a total of 45 credit hours. The curriculum includes:
- 6 core courses in statistics, for a total of 21 credit hours.
- 4 elective courses in statistics, for a total of 12 credit hours
- 3 core courses in computer science, for a total of 12 credit hours.

Core Courses in Statistics (21 credits):
ST 516   Foundations of Data Analytics (4 credits)
ST 517   Data Analytics I (4 credits)
ST 518   Data Analytics II (4 credits)
ST 566   Time Series Analytics (3 credits

ST 558 Multivariate Analytics (3 credits)
ST 595 Capstone project (3 credits)

Core courses in Computer Science (12 credits):
CS 511 Programming Concepts for Non-majors (4 credits)
CS 512 Data Science Tools and Programming (4 credits)
CS 513 Applied Machine Learning (4 credits)

Elective courses in Statistics (12 credits):
ST 515 Design and Analysis of Planned Experiments (3 credits)
ST 525 Applied Survival Analysis (3 credits)
ST 537 Data Visualization (3 credits)
ST 538 Modern Analytical Methods for Large and Complex Datasets (3 credits)
ST 539 Survey Methods (3 credits)
ST 591 Introduction to Quantitative Genomics (3 credits)
ST 592 Statistical Methods for Genomic Research (3 credits) (Taught odd winter terms)

Academic year 2019-2020 Statistics and Computer science class offerings and Terms:

2019-2020 Academic Year	Statistics Classes (ST)	Computer Science (CS)
Fall, 2019	516, 525, 558, 591, 595	511
Winter,2020	517, 539, 566, 595	512
Spring, 2020	518, 515, 537, 538, 595	513

First year full time schedule example:

Term	3 Classes	2 Classes	1 Class
Fall, 2019	ST 516, CS 511, ST 591	ST 516, CS 511	ST 516
Winter,2020	ST 517, CS 512, ST 539	ST 517, CS 512	ST 517
Spring, 2020	ST 518, CS 513, ST 537	ST 518, CS 513	ST 518

D.2. Advising

Each student is assigned an advisor upon entering the Data Analytics program. The role of the advisor is to assist the student in the selection of courses, to help solve procedural problems, and to interpret department policy on matters not covered by this guidebook. Each student should communicate with their advisor before registration each quarter and any other time advice is needed. The Director of the Data Analytics program is also available to help with these matters.

D.3. Program of Study

Upon completion of your first term, work with your advisor in completion of your Program of Study. Forms are available from the Statistics office or your advisor. The Program of Study is prepared with the guidance of the major professor. Once the form is completed, the program of study is reviewed by the Major Professor, Department chair, the graduate school and two committee members. The student chooses the committee members with the help of the major professor. Forward the Program of Study to the statistics office, including your advisor name, and the names of your graduate committee made up of two Data Analytics faculty members.

The statistics office will route the document using DocuSign for approvals. The completed document will be returned to you for submission to the graduate school.

D.4.   Capstone Project (ST 595)

Under the direction of an advisor, the capstone project provides an opportunity for students to integrate and apply the analytics skills learned in the Data Analytics program to solve real-world problems and to interpret and communicate results. Student teams will engage in the entire process of solving data science projects in realistic settings, from placing the problem into appropriate statistical framework to applying suitable analytic methods to the problem. Problem solving, written, and oral communication skills will be emphasized. The capstone project will require an override for enrollment. To receive the override, the Capstone Project (ST595) should be taken during the last term and the approved program of study recorded.

D. 5. Final Oral examination

A final oral examination is required by the Graduate School for all master's programs. It is taken after the student has completed or in the process of completing all courses on their Program of Study. The student first contacts all of the members of their Masters committee to determine a mutually agreeable examination date. Please be aware faculty members tend to get very busy at the end of each quarter, and so the final oral exam should be scheduled well in advance. The student is responsible for scheduling a room for the examination by making a reservation using the Statistics conference room which includes equipment necessary for the Oral, (Zoom, Skype, and/or WebEx). Scheduling the conference room can be found at the following link: https://stat.oregonstate.edu/reservation-calendar. If you need assistance, please contact the office at 541-737-3366. The student then files an Event Scheduling Form with the Graduate School at least two weeks in advance of the examination. The final oral examination should be scheduled for two hours. The first 20 to 30 minutes of the examination is the project presentation. During the remaining time, the committee questions the student. These questions may be related to the project and/or the student's coursework.

E.   THE GRADUATE CERTIFICATE IN DATA ANALYTICS

E.1.   Summary

The requirements for admission to the Graduate Certificate in Data Analytics program are the same as the Master's program. The total credits required to earn the certificate is 18.

E.2.   Course of study for Grad Certificate in Data Analytics

The Graduate Certificate in Data Analytics requires ST 516, ST 517, and ST 518, as well as ST 566 Time Series Analytics and ST 558 Multivariate Analytics for a total of 18 credits.

2019-2020 Academic year	Data Analytics Classes
Fall, 2019	516, 558 (2nd year)
Winter,2020	517, 566 (2nd year)
Spring, 2020	518

Credits earned for the Graduate Certificate can be applied towards the Master's degree, if the Director of Data Analytics and the Graduate school approves this change in program. However, please note the transfer credit rules discussed in B.4. (A maximum of 15 graduate-level credits may be transferred into a Master's degree)

E.3.   Advising

The curriculum for the certificate program is stipulated, thus an advisor is not assigned. The Director of the Data Analytics program is available to help with respond to any questions on the program.

E.4.   Completion of the Certificate Curriculum

Upon completion of the required curriculum, the student should communicate their status to the Graduate coordinator-Office and the graduate certificate checklist will be compiled. The program will notify the Graduate School, and the certificate will be awarded. The Graduate School completes a final audit and awards the certificate, placing the certificate on the student's transcript.

F.   SATISFACTORY PROGRESS

A student is expected to make satisfactory progress toward a degree. A student whose progress is unsatisfactory may be dismissed from the program.

F.1.   Satisfactory Progress for the MS in Data Analytics:

1. Maintain a cumulative GPA in graduate course work of 3.0 or higher by the end of the first year of study. Notice that the Graduate School policy is "A grade-point average of 3.00 is required…."
2. Complete the MS requirements in a reasonable length of time.

F.2. Leave of Absence

On-leave status is available to students who need to suspend their program of study for good cause. Students who desire a leave of absence will work with their major professor, the Data Analytics director, and the Graduate school to arrange authorized leave. The form can be routed through the office using DocuSign. Regular leave of absence is granted for a specific time period that many not exceed three terms, excluding summer session. Read the full leave policy and approved leave types at the following Graduate school link: https://gradschool.oregonstate.edu/faculty/graduate-program-policies .

Leave of absence are due two weeks prior to the start of the term the leave is desired.

F.2.   Annual Review of Student Progress

A student's progress is continually monitored. A special review of a student may be conducted at the discretion of the Director of Data Analytics.

F.3.   Dismissal

If the Director of Data Analytics decides that a student's progress is not satisfactory, and if the Department Chair agrees, then the student is notified and is given the opportunity to submit a written explanation to the Graduate Committee concerning any special circumstances that he or she would like to be considered. The Data Analytics Graduate Committee reviews the case and takes its recommendation to the Department Chair, which makes the

final decision on whether or not to dismiss the student from the program. A student who has been dismissed from the Department may continue to take courses only if he or she is accepted in another department or program or if the Graduate School grants the status of special student.

G.   FINANCIAL ASSISTANTSHIPS

No graduate teaching or research assistantships are available for the online programs. Although some of the graduate student web pages on "financing your education" do not apply to distance and certificate students, some sections do apply. These include information on fellowships and scholarships, taxes, reference resources, etc. M.S. students should all be advised to file their FAFSA forms and review the Financial Aid office web site: http://financialaid.oregonstate.edu/

H.   ORGANIZATION OF THE DEPARTMENT

H.1.   Faculty in the Statistics Department

Professors:
- **Virginia Lesser,** Ph.D. in Biostatistics, Univ. of North Carolina, 1992; Sampling methodology, and environmental statistics.
- **Javier Rojo**, Ph.D. in Statistics, University of California, Berkeley, 1984; Survival analysis, partial orders of distribution functions, extreme value theory and tail-heaviness of distribution, Nonparametric function estimation, Statistical decision theory, Random matrices, and Dimension reduction.
- **Lan Xue,** Ph.D. in Statistics, Michigan State University, East Lansing, 2005; Non-parametrics and semi-parametrics modeling, variable selection for high-dimensional data, Nonlinear time series analysis, Survival analysis and Analysis of longitudinal data.

Associate Professors:
- **Yanming Di,** Ph.D. in Statistics, University of Washington, Seattle, WA 2009; Statistical genetics and genomics.
- **Sarah Emerson,** Ph.D. in Statistics, Stanford University, Stanford, CA, 2009; Non-parametric and semi-parametric statistics, and biostatistics.
- **Claudio Fuentes,** Ph.D. in Statistics, Univ. of Florida, Gainesville, 2011; Clustering and Classification problems, Post-selection inference, Bayesian Methods and Applied Statistics.
- **Lisa Ganio,** Ph.D. Oregon State 1989, Biometrics, and study design.
- **Yuan Jiang,** Ph.D. in Statistics, Univ. of Wisconsin-Madison, Madison, WI, 2008; Data integration, high-dimensional data, statistical genetics/genomics.
- **Lisa Madsen,** Ph.D. in Statistics, Cornell University, Ithaca, New York, 2004; Spatial statistics, dependent data, and statistical computing.
- **Debashis Mondal,** Ph.D. in Statistics, University of Washington, Seattle 2007; Spatial statistics, MCMC, and time series.
- **Thomas Sharpton,** Ph.D. in Microbiology, Designated emphasis in computational biology, University of California, Berkeley, CA, 2009. Biostatistics, genomics and metagenomics, data integration, big data analysis, machine learning, network informatics.

Assistant Professors:

- **Sharmodeep Bhattacharyya,** Ph.D. in Statistics, Univ. of California, Berkeley, 2013; Statistical inference on networks, high-dimensional statistics, clustering, non-parametric and semi-parametric and semi-parametric methods, application to neuroscience and omics data.
- **Duo Jiang,** Ph.D. in Statistics, Univ. of Chicago, Chicago, IL, 2014; Statistical genetics and biology-related fields, mixed models and quasi-likelihood methods.
- **Katherine McLaughlin,** Ph.D. in Statistics, University of California, Los Angeles, CA 2016; Sampling methodology and social network analysis.
- **James Molineux,** Ph.D. in Statistics, University of California, Los Angeles 2018

Senior Instructor II:
- **Jeff Kollath,** MS in Statistics, Oregon State University, Corvallis, Or, 1995

Senior Instructors I:
- **Katie Jager,** MS in Statistics Oregon State University, Corvallis, OR, 2013
- **Juliann Moore,** MS in Statistics Oregon State University, Corvallis, OR, 2011.
- **Charlotte Wickham,** Ph.D. in Statistics, Univ. of California, Berkeley, CA 2011; Spatio-temporal modeling, environmental statistics.

Instructor:
- **Kelsi Espinoza,** MS in Statistics Montana State University, Bozeman, MT, 2016

Senior Research Assistant II:
- **Lydia Newton,** M.A.I.S. Oregon State University, Corvallis, OR, 1998.

Department Office Staff:
- **Mary Gardner**, Office Manager
- **Maggie Neel,** Graduate Program Coordinator

Adjunct Professors and faculty:
- **Adam Branscum,** Ph.D. UC Davis 2005, Biostatistics
- **Xiaohui Chang**, Ph.D. Univ. of Chicago, 2012, Spatial Statistics
- **Tom Dietterich**, Ph.D. Computer Science, Stanford, Univ. 1984
- **Alan Fern,** Ph.D**.** Computer Engineering, Purdue University 2004
- **Ping-Hung Hsieh,** Ph.D. Michigan 1997, Extreme value analysis, Bayesian modeling
- **John Molitor,** Ph.D. Statistics, Univ. of Missouri, Columbia Missouri, 1999
- **Mina Ossiander,** Ph.D. Univ. of Washington 1985
- **Juan Restrepo,** Ph.D. Physics, Penn State 1992
- **Enrique Thomann,** Ph.D. Math, UC Berkeley, 1985

Courtesy Faculty:
- **Manuela Huso**, MS, Oregon State Univ. 1988, Research Biological Statistician
- **E. Henry Lee,** Ph.D. Iowa State University 1981, Nonlinear regression, stochastic time series.
- **John Van Sickle,** MS., Oregon State Univ. 1981, Environmental Statistics
- **Jay Verhoef,** Ph.D. Iowa State University, 1991, Environmental Statistics

Professor Emeritus/retired:
- **David S. Birks,** Ph.D. Univ. of Washington 1969. Linear models, mathematical statistics.
- **David A. Butler,** Ph.D. Stanford University 1975. Machine vision, applications to operations research to forestry, reliability theory and applications.

- **G. David Faulkenberry,** Ph.D. Oklahoma State 1965. Population sampling, survey methodology.
- **Paul Murtaugh,** Ph.D. University of Washington 1989, Statistical ecology, generalized linear models, survival analysis, medical statistics
- **Clifford B. Pereira**, Ph.D. Oregon State University 1985; Applications of statistics in biology, mixed linear models, design and analysis of experiments, statistical consulting.
- **Donald A. Pierce,** Ph.D. Oklahoma State 1965. Theory of inference, asymptotics, applied statistics, enumerative data, generalized regression models, survival data.
- **Fred L. Ramsey,** Ph.D. Iowa State 1964. Wildlife survey methods, biometry, statistical ecology, time series analysis, stochastic processes.
- **Kenneth E. Rowe,** Ph.D. Iowa State 1966. Statistical computing, design and analysis of experiments.
- **Daniel W. Schafer,** Ph.D. University of Chicago 1982. Regression analysis, generalized linear models, measurement error regression, categorical data analysis.
- **Robert T. Smythe,** Ph.D. Stanford 1969. Biostatistics, stochastic processes
- **Don L. Stevens Jr.,** Ph.D. Oregon State University 1979. Environmental statistics, sampling methodology, spatial statistics, probability.
- **David R. Thomas,** Ph.D. Iowa State 1965. Resampling methods, nonparametric statistics, survival distributions, tolerance interval methods.
- **N. Scott Urquhart,** Ph.D. Colorado State 1965. Applied linear models, statistical ecology, and environmental statistics.

For more information on the faculty of the Department, see the Statistics Department website at: stat.oregonstate.edu/content/faculty-research-interests. In addition to the regular faculty, the Department frequently has visiting professors.

H.2.   Preferred Communication

Students are expected to use e-mail as their primary means of school-related communication and are expected to check email daily as this is sometimes the only way for the Department to contact you.

I.   MISCELLANEOUS

I.1.   Professional Societies

Students are encouraged to join one or more professional societies as student members. Students who wish to join the Institute of Mathematical Statistics (IMS), the American Statistical Association (ASA), or Biometric Society (WNAR) should go to the website of the appropriate society (ask advisor if help is needed). Membership is either free or very inexpensive for students.

I.2.   Student Files

A file, containing biographical information, correspondence, grades, progress reports, etc., is maintained for each student and kept in the Department office. Under the Oregon Open Records Law, a student may inspect or add to their file at any time.

I.3.   Signatures on documents - DocuSign

OSU and our department uses DocuSign to route documents for signatures. If you need a form signed, please send the document to the statistics office, including all the parties names that need to sign. Please note, if you're expecting a DocuSign document to sign, check your spam folders, these emails sometimes are routed to spam depending on your email's set-up.

I.4.   Other Sources of Information

More information on some of the matters covered in this guidebook may be found in the following sources:
OSU General Catalog and Schedule of Classes: catalog.oregonstate.edu.
OSU Statistics Home Page: stat.oregonstate.edu.

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