Instructor: Kyla Pohl

Summer 2020, CRN 42334

Email: kpohl@uoregon.edu

Office Hours: Tues, Wed, Thurs 12 – 1pm (via Zoom) and by appointment

Class Meetings: M-F, 10:00-11:50am, via Zoom (meeting link can be found on Canvas)

Course Goals: By the end of the course, students will understand...

- how to determine various measures of center and spread and visual presentations for data sets
- the role of randomness and probability in the application of standard statistical tests
- how to apply the tools of inferential statistics to study the mean and proportion of quantitative variables for populations

Learning Outcomes: Specifically, by the end of the course a successful student can...

- organize, present, and analyze data using appropriate statistical models
- use properties of, and computations for, probability in statistical contexts
- determine, given data set(s) in context, an appropriate test statistic and effectively analyze the data using a one-sample or two-sample test for mean or proportion
- correctly interpret the meaning of a p-value
- construct confidence intervals for one-sample and two-sample tests for mean and proportion
- interpret the results of a test of significance and confidence interval both quantitatively and qualitatively
- set up, execute, and interpret one-sample and two-sample tests of hypothesis for mean and proportion
- interpret the values of Type I and Type II errors for a given test of significance
- use the statistical package of a calculator to perform computations for one- and two-sample data

As a consequence of asking for interpretation of results, exams will contain instructions such as "De-scribe", "Explain", and "Discuss", in addition to simply "Compute".

Course Materials:

- <u>Text:</u> "The Basic Practice of Statistics", 8th Ed., by David Moore
- <u>Calculator</u>: A scientific or graphing calculator with a statistics package (capable of determining sample standard deviation, mean, probability in a Normal distribution, etc.) is required. If you don't have access to a calculator of this type, you can download an emulator here.

Category	Portion of Course Grade
Course Engagement	5%
Quizzes	10%
Worksheets	10%
Homework	20%
Midterm Exam 1	10%
Midterm Exam 2	10%
Midterm Exam 3	10%
Final Exam	25%

Grade Categories and Distribution: We will used a fixed grading scheme for the course.

Worksheets and Course Engagement: Every day in class you will work in small groups in break out rooms to complete worksheets, focused on processing recent material discussed in primary class time. These will be worth course credit for participation and completion. Engaging earnestly with your group in the discussion of the material, regardless of completion, is generally sufficient for full participation credit. (The instructor is the arbiter of what constitutes full or partial participation.) If you are not in class, you may also receive course engagement points through attending my office hours. If my office hours do not work with your schedule I am always available to schedule an office hour with you through appointment. The worksheet can be completed during or after class, to be turned in by the beginning of the next day's class. It will be graded for completion.

Concept Quizzes: There will be a quiz each class day given on Canvas due by midnight (except on exam days). Content covered will be based on the homework due that day at the beginning of class. Each quiz will have a time limit of 20 minutes and you will be given 1 attempt. The lowest 4 quizzes from the quarter will be dropped from the grade book.

Homework: Homework will be assigned every day after class and will be due the following day before class. Please upload a pdf file to Canvas. If you choose to hand-write your assignments, please be sure that all writing is clear and legible.

Exams: The three midterm exams will cover approximately five or six chapters each. The final exam will be cumulative. The exams will be available on Canvas at the allotted time and submitted again via Canvas by the end time of the exam. These are the only portion of the course that are required to be done during class time.

Midterm Exam 1 (Sections $1 - 3, 8, 9, 12$):	June 26
Midterm Exam 2 (Sections $13, 15 - 18$):	July 2
Midterm Exam 3 (Sections $20 - 21$):	July 10
Final Exam: (All course material, including Sections 22 and 23)	July 17
Nexting a second on an and instate about the	

Sections covered on exams are subject to change.

Grading Scheme: The course will be graded according to this scheme. The top and bottom 2% of each letter grade will be plus and minus, respectively.

Percentage	Letter Grade
90% to $100%$	А
80% to $90%$	В
70% to $80%$	\mathbf{C}
60% to $70%$	D
0% to $60%$	\mathbf{F}

Late Work Policy: Late work will not be accepted in this course. This includes homework assignments, quizzes, worksheets, etc. Exams must be submitted within the allotted time to receive any credit. Please carefully keep track of due dates/times to avoid losing credit for your work.

Accessibility: For those of you who are currently registered with Accessible Education Center for a documented disability, please present your paperwork to me during the first week of the term (or earlier) so that we can design a plan for you. Those of you with a disability (or who might) but are not registered with AEC should contact them as soon as possible. It is much more likely that measures can be taken to provide adequate special accommodation if the organization is done through AEC. I have attempted to provide documents that are accessible. Please let me know if you need additional accommodations.

Student Conduct: I plan to treat every student with respect and, as such, expect my students to show respect for me and for the class as a whole. Violations of the student conduct code results in the incident being included on your student conduct record as well as academic sanctions such as a failing grade on any coursework related to the violation or simply a failing grade in the course. The University of Oregon requires all instances of cheating be reported, no matter how small. Cheating includes, but is not limited to:

- Looking at another student's exam during a test,
- Copying the work of another person (student or otherwise) and submitting it as your own,
- Using any materials except those explicitly approved during a test-taking situation,
- Resubmitting graded work that was altered after being returned,
- Cooperating on work for the course (including exams) without being explicitly allowed to do so.

For a list of other descriptions of cheating, see the Student Conduct Code.

Suggestions for Successful Study:

• Don't get behind in your reading, homework, etc.

- Participate in class, ask questions, and make use of my office hours.
- Form a study group with others in the class. Work together on homework but everyone must join in and submit their own work.
- Read ahead in the book and watch the videos. A little bit of preparation will help the material sink in quicker during class and allow you to ask meaningful questions.
- Keep all your old exams and worksheets. You'll find them useful when you're studying for tests.

Prohibited Discrimination and Harassment Reporting: I am a student-directed employee. For information about my reporting obligations as an employee, please see Employee Reporting Obligations. Students experiencing any form of prohibited discrimination or harassment, including sex or gender based violence, may seek information on safe.uoregon.edu, respect.uoregon.edu, titleix.uoregon.edu, or aaeo.uoregon.edu or contact the non-confidential Title IX office (541-346-8136), AAEO office (541-346-3123), or Dean of Students offices (541-346-3216), or call the 24-7 hotline 541-346-SAFE for help. I am also a mandatory reporter of child abuse. Please find more information at Mandatory Reporting of Child Abuse and Neglect.

Tentative Weekly Schedule: The following is a non-binding notion of where we will be and what we will do each week. The actual assignment deadlines will be provided in class and usually also on Canvas.

Date	Assessment	Textbook Sections	HW and WS Due
M Jun 22		Syllabus, 1.1-1.5, 2.1-4	
Т""23	Ch. 1 and 2 Quiz	2.5-8, 3.1-8	1
W " " 24	Ch. 2 and 3 Quiz	8.1-6, 9.1-7	2
R " " 25	Ch. 8-9 Quiz	12.1-7	3
F""26	Midterm 1 (11-11:50)	Review	4
M " " 29	Ch. 12 Quiz	13.1-6	
Т""30	Ch. 13 Quiz	15.1-6, 16.1-4	5
W July 1	Ch. 15 and 16 Quiz	17.1-4, 18.1-4	6
R " " 2	Midterm 2 (11-11:50)	Review	7
F""3		No Class	
M " " 6	Ch. 17-18 Quiz	20.1-3	
Т""7	Ch. 20 Part 1 Quiz	20.4-7	8
W " " 8	Ch. 20 Part 2 Quiz	21.1-2	9
R""9	Ch. 21 Part 1 Quiz	21.3-5	10
F " " 10	Midterm 3 (11-11:50)	Review	11
M " " 13	Ch. 21 Part 2 Quiz	22.1-2	
Т""14	Ch. 22 Part 1 Quiz	22.3-4	12
W " " 15	Ch. 22 Part 2 Quiz	23.1-3	13
R " " 16	Ch. 23 Part 1 Quiz	23.4-5, Review	14
F " " 17	Final Exam		15

Important Dates:

June 24 June 25 July 9 Last day to drop without a "W" Last day to switch to or from audit Last day to withdraw (drop with a "W") or change to P/NP

See the DuckWeb course page for this course for other Summer 2020 deadlines.

Showing Work

To get full credit for homework and (especially) on exams, it will be necessary to show work. This is what lets me know that you understand the process, and assign partial credit where it is due. It will be helpful to you as well, as showing your work means you'll be making less mistakes.

Need help?

You should make use of my office hours whenever possible. Keep in mind that I may ask you questions about how you started the problems and encourage you to contribute to solving it, rather than simply handing you the result. Always feel free to reach out to me via email with questions, but note that I will not always be available to answer questions immediately.