Math 365: Mathematical Probability

Instructor: Breeann Flesch, PhD

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Course Description:

MTH 365 Mathematical Probability (4 credits)
Probability theory developed through moment generating functions. Random variables, classical probability distributions. Prerequisite: MTH 253 or MTH 254 with a grade of C- or better.

Instructor Office Hours:
Mondays 10:00 - 11:00
Wednesdays 11:00 - 12:00
Thursdays 10:00 - 12:00
Fridays 11:00-12:00
    You do not need to make an appointment to come to office hours. At times other than my listed office hours, you are welcome and encouraged to call or email me with questions about the course. If you have scheduling conflicts with my office hours and would like further help, please let me know.

Course Materials:

- Text: Probability and Statistical Inference, 9th Edition
  ISBN-13: 978-0321923271
  Author(s): Hogg, Tanis and Zimmerman
  Publisher: Prentice Hall

- Access to Moodle: `http://online.wou.edu/`. You should automatically be enrolled in the Moodle course if you successfully enrolled in the course.

- Calculator − A graphing calculator is highly recommended for this course, namely a TI-83 or TI-84. Please see me if you are considering purchasing a new calculator.

Expected Learning Outcomes:

- Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work. - aligned with program goal 1 and Quantitative Literacy

- Understands the axioms of probability, deterministic and probabilistic modeling, continuous and discrete probability distributions, and conditional probability - course specific goal

- Understands mean, variance, standard deviation, expected value, various probability distributions, and the Central Limit Theorem - course specific goal

Course Policies

<u>ATTENDANCE:</u> Attendance is absolutely important to be successful in this course. If you miss class, you are responsible for the missed material and there will be no opportunities to make-up daily in-class assignments.

<u>CLASSROOM BEHAVIOR:</u> Please refer to the Standards of Conduct in the WOU catalog. In particular, please read `http://www.wou.edu/las/natsci_math/math/academicdishonesty.php`

<u>GRADING:</u>

- Written Homework – Written homework will be assigned and collected weekly. It is imperative for your success in the class that you work the homework as assigned and keep up with your study of the material. Written homework assignments will be due at the beginning of the designated class. *No late homework will be accepted under any circumstances.* Your lowest score of the approximately 9 assignments will be dropped.

- In-class work – Each week one or more in-class activities will be assigned. Often these will be due by the end of the class period. At times it will be possible to work in groups, but you should be prepared to work individually. *No late work will be accepted under any circumstances.* It is imperative that you are in class and actively participating to be successful in this class. Your lowest score will be dropped.

- Project – The project explores theoretical issues in greater depth and will use LaTex. More details will be available soon in class.

- Exams − There will be two midterm exams and a final exam. Makeup exams are generally not given. If you must miss an exam due to a documented emergency or a documented university sanctioned absence from class please inform me ASAP. Cell phones may not be used as calculators during an exam and must be turned off.

- Grades − The standard grading scale will be used with each component worth approximately:

Component	%
Written Homework	20
In-class work	15
Project	5
Exam 1	20
Exam 2	20
Final Exam	20

RESOURCES:

- TUTORING: Free drop-in tutoring for background material on MTH 365 is available at the Math Center in the library. Please see the schedule at `http://www.wou.edu/las/natsci_math/math/tutor/`. Tutoring is also available through the Learning Center. Information on available services may be found at `http://www.wou.edu/provost/aalc/learning/procedures.php`.

- WOLF CONNECT SYSTEM (WCS): If the instructor determines your performance in this class is placing you at academic risk, you may be referred to Western's Student Success Specialist. The specialist will offer to work with you to address issues and develop a student success strategy. Regardless of whether a referral has or has not been made, you are ultimately responsible for tracking your own progress in this course.

- INCOMPLETES: An Incomplete can only be granted for a student who is passing a class and has a documented emergency that prevents them from completing the course, after Friday of the seventh week of class, which is the last day for dropping a course with W grade.

- LEARNING DISABILITIES: If you have a documented learning disability, please talk to me during the first few days of class; I will be more than happy to accommodate you in any way that I can. If you have a documented disability that requires academic accommodations or auxiliary aids at Western Oregon University, please contact the Office of Disability Services (ODS). ODS is located in the APSC, Room 405, Phone 503-838-8250 V/TTY or email at ODS@wou.edu.

- VETERANS AND ACTIVE MILITARY PERSONNEL: Veterans and Active Military Personnel with special circumstances are welcome and encouraged to communicate these, in advance if possible, to the instructor.