Math 465   Mathematical Statistics   Winter 2017

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Web Page: http://math.oit.edu/~watermang/   There is a link there to a page for our class. (Doing a search for waterman oit will find you the web page as well.) At the web page you can find the syllabus, daily schedule, as well as (hopefully) other useful things.

Office Hours: 1-1:50 MTWF, 11-11:50 R. You are also welcome to drop in any time to see if I am around - if I am I can usually take some time to help you. **I can also make appointments for other times**.

Text: The text is a looseleaf book I wrote; you can get it at the bookstore, or you can simply access it electronically or download it at my web page. If you would like to have a "real" textbook, I would recommend one of the following. You should be able to get used older editions of any of these for $1-30.

- *Mathematical Statistics* by John E. Freund

- *Probability and Statistics for Engineers and Scientists* by Walpole, Myers, Myers and Ye, 7th or 8th edition.

- *A First Course in Probability* by Sheldon Ross

Course Goals and Objectives: After completing this course, students will be able to

1. Apply counting principles.

2. Solve classical probability problems.

3. Use general, special, and joint distributions to solve problems.

Students will also communicate mathematical ideas using correct and appropriate notation.

Grading: Your grade will be based on your scores on exams, quizzes, assignments and in-class activities.

- *Regular Exams:* There will be three exams given during the term. **You MUST take exams at the scheduled times and there will be no make-up for missed exams**. See the schedule at the end of this syllabus for exam dates. Make-up exams can be given for previously arranged absences if you have a good reason to miss an exam.

- *Final Exam:* The final will be given during the time period listed in the calendar below. It will be comprehensive. **You MUST take the final at the designated time, so make all travel arrangements accordingly.**

- *Quizzes:* Quizzes are basically "small exams" given with the intent of measuring how you are doing at the point in time that they are given. **Quizzes may be announced or unannounced. There will be no make-up for missed quizzes, regardless of the reason**.

- *Assignments:* Many days there will be an assignment **due at the start of class**. Often these will be designed for you to learn a new calculation from the book or videos. See the assignment expectations on the next page for additional information on assignments. **Late assignments will not be accepted**.

- *In-Class Activities:* Much of your time in class will be spent working both alone and as a member of a group, to practice methods and explore concepts. I will regularly collect work that you do in class, either alone or as a group, and grade it. **Such work cannot be made up.**

Grades will be computed from the above as follows:

- Each regular exam will be worth 100 points and the final exam will be worth 150 points.

- The total number of points possible for each student is 450 plus the total number of points *earned* earned on all quizzes, assignments and in-class activities.

- Each quiz, assignment or in-class activity point will be worth the same amount as each exam percentage point.

Your score will be your total number of points earned divided by *your* total number of points possible. Thus, every student will receive 100% on all quizzes, assignments and in-class activities, but the number of points earned that way will vary from student to student. You will receive a letter grade using the grading scale 90-100% $\Rightarrow$A, 80-89% $\Rightarrow$B, 70-79% $\Rightarrow$C, 60-69% $\Rightarrow$D, and below that is an F.

Other Things of Importance:

- *Incomplete Grades:* An incomplete grade can only be assigned to you under the following circumstances:

  1. You have/had a grade of 70% or better (including zeros for any work not done) by the date to withdraw with a W.

  2. You have a SERIOUS problem that begins after the withdraw date and prevents you from being able to complete the term.

  An incomplete grade will definitely not be assigned in the event that you are not performing well in the course and fear that you may not obtain a passing grade!

- *Disabilities:* If you have a physical, learning, sensory or psychological disability and require accommodations, or you might need special arrangements in case the room or building must be evacuated, please let me know as soon as possible. You will need to register with, and, in most cases, provide documentation of your disability to Disability Services. Please contact Erin Ferrara, Coordinator of Disability Services at (541) 851-5227 or erin.ferrara@oit.edu. Disability Services is located in the Learning Resource Center, room 229.

Calendar: Below are some important dates for the term.

January 16th - **Martin Luther King Day Holiday - no class**

January 25th - **Exam One**

February 15th - **Exam Two**

February 24th - Last day to withdraw with a "W"

March 8th - **Exam Three**

Thursday, March 23rd, 10:00 AM - 12:00 PM - **Final Exam**

Assignment Expectations:

Assignments will usually consist of 2 - 5 exercises from the textbook. In order to do the exercises you will usually need to read some examples in the book and/or watch some videos explaining the concept(s) and showing how to work several examples. Here are the expectations:

- The assignment will be posted on the schedule at the class web page.

- Assignments are **due at the start of class the day after they are given**. If you are not able to attend class, you may drop your assignment in the folder outside my office **prior to class**.

- You should put your name and the assignment number on each assignment, but nothing else is required. You may do your assignments on any type of paper, including back sides of previously used pages. (See next bullet.)

- The assignment score will be based primarily on completeness, neatness/organization, and evidence of having checked answers for correctness and attempted to find errors.

- The exercises will usually be taken from the textbook, so the answers are in the back of the book. You should check every answer and, if it not correct, attempt to find and correct your errors. If you can't find your error, you need to write a brief statement saying that, and telling what you do not understand or speculating on where your error might be. **You must do these things in order to receive full credit.**

- Axes of graphs should be drawn with a straightedge, and a scale should be indicated on each axis. **You must do these things in order to receive full credit.**

- You are expected to communicate your work in the same manner as demonstrated in class and the textbook, and on the videos. **You must do these things in order to receive full credit.**