CONTACT INFORMATION

Professor: James Bernhard
Email address: jbernhard@pugetsound.edu
Office: Thompson Hall 390G
Office hours: TBA — see course website

My phone number is 879-3812, but the phone is usually one of the slowest ways to reach me. Email is usually much faster.

The course website is the best resource for information about the course. Among other things, it contains a complete calendar for the semester, including all assignments. Also, if you email me a password, you will be able to access your grade-to-date any time during the semester via the course website.

LEARNING OBJECTIVES The primary goals of this course, in order of importance, are:

1. To learn how to learn mathematics.
2. To learn how to write an expository mathematical paper.
3. To learn about the subject of probability theory.

The third goal includes building a solid foundation in probability theory, one suitable for pursuing (among other things) any of the following:

- graduate studies in statistics or biostatistics
- graduate studies in mathematics or applied mathematics
- an actuarial career.

PREREQUISITES To take this course, you should have completed Mathematics 280 (Multivariate Calculus) and Mathematics 290 (Linear Algebra). If you have not completed both of these, you should see me so that we can discuss the suitability of this course for you.

COURSE MATERIALS The required text for this course is Elementary Probability for Applications by Rick Durrett (2009), available at the campus bookstore. You may find it convenient at times to use a calculator or computer program (such as R), but no particular specialized technology is required for this course.

That said, I will expect your work to be word-processed on a computer. If you are not already familiar with how to typeset mathematics (such as with \LaTeX, LyX, Word’s Equation Editor, etc.), you will need to become familiar with this during the semester. I would be happy to help you with this. You will not be graded on your typographical skills, but you will need to be able to use them to communicate successfully.

COURSEWORK The coursework consists of:

- Approximately weekly homework problems, usually due in class on Wednesdays.
- A few reading assignments, during the first half of the semester.
- Three take-home tests, over the course of the semester.
- A practice project, during the second half of the semester.
- A project, at the end of the semester.
There is no final exam for this course. The course is finished on the last day of class.

You will turn in only one homework problem per week for a grade. You should be able to solve this problem fully and write up your solution clearly, and I will then give you feedback on it. Contrary to what you may have encountered in other mathematics classes, solving the homework problems that you turn in will not give you sufficient mastery of the material for the tests. The homework problems that you turn in will only cover a small part of the course material. You should complete and write up many more problems than those that you turn in.

I have structured the take-home tests to give you an incentive to do such additional homework problems. Before I hand out each take-home test, I will collect (a photocopy or electronic copy of) a set of “notes” that you write up for yourself to use as your only resource on the test. You may not use the textbook or any other resources on the test; you are allowed to use only your prepared notes. These notes may consist of anything: formulas, worked problems, theorems, proofs, and anything else that you have written up before the test. Your notes must be written up by you though, either by hand or electronically, no matter what the original source of the material was. For example, no photocopies of material from the textbook or from any other resource are allowed.

You must therefore determine for yourself before each test what material you think you will need to succeed on the test. This process is important in helping you to learn how to learn mathematics.

**Grading** Your grade will be based on my assessment of your understanding of the material. By default, I will weight the various components of the course as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework problems</td>
<td>5%</td>
</tr>
<tr>
<td>Reading assignments</td>
<td>5%</td>
</tr>
<tr>
<td>Test 1</td>
<td>15%</td>
</tr>
<tr>
<td>Test 2</td>
<td>25%</td>
</tr>
<tr>
<td>Test 3</td>
<td>25%</td>
</tr>
<tr>
<td>Practice project</td>
<td>5%</td>
</tr>
<tr>
<td>Project</td>
<td>20%</td>
</tr>
</tbody>
</table>

However, these weights are subject to change due to individual circumstances, so if you believe the above components do not accurately represent your understanding of the material, then you should let me know. If the circumstances dictate, I can work with you to find another way to demonstrate your understanding of the material.

**Policy on Late Work** I will not accept late work without an appropriate reason, which you should explain to me before the work is late if possible. If you are falling behind or need to turn something in late, please see me so that we can discuss it.

**Academic Honesty** I encourage you to work with others (other students, myself, tutors, etc.) on homework problems and reading assignments in any way that helps you understand the material, but the write-up that you turn in should be your own. You may not discuss the take-home tests with anyone besides me before they are due and turned in, and you may use only the resources allowed in the instructions. You should work with everyone in your group on the practice project, as you will turn in only a single paper per group on the practice project. The (non-practice) project and presentation should represent your own work.

For practical guidelines on using quotation and paraphrasing effectively and honestly, see the following guide put together by staff at the University of Puget Sound Library:

http://alacarte.pugetsound.edu/subject-guide/6-Academic-Integrity-Puget-Sound

For general information on issues of academic honesty, see the official University of Puget Sound academic honesty policy at:

http://www.pugetsound.edu/student-life/student-resources/student-handbook/academic-handbook/academic-integrity/

**Other** Feel free to contact me with any other questions you have regarding the course. I look forward to an enjoyable class with you this semester!