Course website

http://math.pugetsound.edu/~jbernhard

Contact information

James Bernhard • jbernhard@pugetsound.edu • Thompson Hall 390G

For my office hours, see the course website. My office phone number is 253.879.3812, but the phone is usually one of the slowest ways to reach me. Email is usually much faster. (All of my email is forwarded to another account, so you may receive email from me at that account as well.) Neither phone nor email will necessarily reach me “after hours” (on nights and weekends), so please take that into account when you contact me via either one.

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 when I request one, you will be able to access your grade-to-date any time during the semester via the course website.

Learning outcomes

Upon completion of this course, students will be able to:

• assess the validity of statistical arguments by carefully considering the context and manner in which data has been collected and statistical methods applied.

• learn new statistical methods appropriate to the problem at hand.

• understand and apply an advanced statistical method which they have chosen and explored in the course.

Prerequisites

The prerequisite for this course is Mathematics 260 (Intermediate Applied Statistics) or the equivalent. If you have not met this requirement or are not sure if this is an appropriate course for you, please see me and we can discuss the course’s suitability.

Course materials

There are two required texts for this class:


Both of these are available at the campus bookstore.

Access to a computer with R and R Studio will be necessary for this course. No other particular technology is required for this course. We will assume a background in R, as taught in Mathematics 260.

Coursework

There is no final exam for this course. The course is finished on the last day of class.

The homework assignments are to help you learn the course material, so that you will be able to understand and discuss the readings from the textbooks. You will also apply what you learn in the homework assignments to the final project.

On homework assignments, I encourage you to work with others, including me, in any way that helps you achieve these goals. You should be able to earn nearly 100% on all the homework assignments, and if you are not doing so, you are falling behind in the course. If you are genuinely stuck on a problem, you should seek help on it, preferably before it is due. (This is better for both your learning and your grade.)

The reading questions are to ensure that you have read the relevant sections of the textbook before we discuss them in class. I will not provide any feedback on them (other than a 0 or 1 score), but I will use them to generate the lectures.

Project 1 will consist of an in-class presentation and a paper. In each of these, you will explain an advanced statistical technique that you have chosen (and that I have approved).

Project 2 will also consist of an in-class presentation and a paper. In each of these, you will conduct a data analysis using the advanced statistical technique that you explored in your midterm project.

You are not allowed to work with others on either of the projects other than for presentation rehearsal feedback and routine paper editing. If you have questions about either of the projects, you should ask me and no one else.

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 assignments</td>
<td>40%</td>
</tr>
<tr>
<td>Reading questions</td>
<td>5%</td>
</tr>
<tr>
<td>Project 1</td>
<td>25%</td>
</tr>
<tr>
<td>Project 2</td>
<td>30%</td>
</tr>
</tbody>
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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, please let me know. If the circumstances dictate, I can work with you to find another way to demonstrate your understanding of the material.
Late work policy

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.

Attendance policy

I will not be taking attendance in this class. You are responsible for the material that we cover in class whether or not you are in attendance. Since it is extremely difficult to keep up in the course without attending regularly, I expect absences to be rare. I do not ordinarily give make-up tests, so if you must be absent during one of those, please let me know as early as possible so that we can discuss the situation.

Academic honesty

On homework assignments, you are allowed to work with anyone (including each other, tutors, and me) on homework problems, as long as you do so in a way that helps you learn the material. As a specific aspect of this, you may communicate with others orally about homework assignments, and you are allowed to make written scratchwork together with others, but you are not allowed to read even part of anyone else’s homework assignment write-up.

You are not allowed to work with others on either of the projects other than for presentation rehearsal feedback and routine paper editing. If you have questions about either of the projects, you should ask me and no one else.

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/

Classroom Emergency Response Guidance

Please review university emergency preparedness, response procedures and a training video posted at www.pugetsound.edu/emergency/. There is a link on the university home page. Familiarize yourself with hall exit doors and the designated gathering area for your class and laboratory buildings.

If building evacuation becomes necessary (e.g. earthquake), meet your instructor at the designated gathering area so she/he can account for your presence. Then wait for further instructions. Do not return to the building or classroom until advised by a university emergency response representative.

If confronted by an act of violence, be prepared to make quick decisions to protect your safety. Flee the area by running away from the source of danger if you can safely do so. If this is not possible, shelter in place by securing classroom or lab doors and windows, closing blinds, and turning off room lights. Lie on the floor out of sight and away from windows and doors.
Place cell phones or pagers on vibrate so that you can receive messages quietly. Wait for further instructions.

**Office of Accessibility and Accommodations**

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Peggy Perno, Director of the Office of Accessibility and Accommodations, 105 Howarth, 253.879.3395. She will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

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**Other**

Feel free to contact me with any questions you have regarding the course. I very much want each and every one of you to succeed in this class.

I look forward to an enjoyable class with you this semester!