Course Syllabus
Mathematics 373: Linear Statistical Models
Professor James Bernhard, Spring 2012

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

The most important information about the course is on the above course website, including a full course calendar.

Course goals

1. To learn about nonparametric statistical methods, especially those involving resampling.
2. To gain a deeper understanding of already familiar parametric statistical methods.
3. To learn to use R as a problem-solving tool rather than just for routine calculations.

Prerequisites

The prerequisite for this course is Mathematics 260.

Course activities

<table>
<thead>
<tr>
<th>Type of activity</th>
<th>% of course grade</th>
<th>Resources you are allowed to use</th>
<th>Further information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeworks</td>
<td>30%</td>
<td>Any, including working with other people</td>
<td>Approximately weekly</td>
</tr>
<tr>
<td>Test 1</td>
<td>10%</td>
<td>R, class textbook, your own prior homeworks, any lecture notes prepared beforehand</td>
<td>Take-home test, see course calendar for due date</td>
</tr>
<tr>
<td>Test 2</td>
<td>15%</td>
<td>Same as Test 1</td>
<td>As for Test 1</td>
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<tr>
<td>Test 3</td>
<td>15%</td>
<td>Same as Test 1</td>
<td>As for Test 1</td>
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<tr>
<td>Test 4</td>
<td>15%</td>
<td>Same as Test 1</td>
<td>As for Test 1</td>
</tr>
<tr>
<td>Project</td>
<td>15%</td>
<td>Same as Test 1</td>
<td>As for Test 1</td>
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</tbody>
</table>

The Project will include an in-class presentation and a write-up. There is no final exam in this course. The course is finished on the last day of classes.

Your course grade will be based on my assessment of your understanding of the material. By default, I will use the percentages given above in my assessment. However, these percentages are subject to change due to individual circumstances, so if you believe that 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.

Note from the above table that you are allowed to work with others, including myself, only on the approximately weekly homework assignments. Also, when you are allowed to work with others, your write-up must still be your own and must reflect your understanding of the material. For general information on issues of academic honesty, see the official University of Puget Sound academic policy online at:

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

The required text for this course is *Resampling Methods: A Practical Guide to Data Analysis (3rd edition)*, by Phillip I. Good. It has been ordered at the campus bookstore.

There is no particular specialized technology needed for this course. We will use R for statistical computations, as should be familiar from Mathematics 260.

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.

Emergency response procedures

Please note the following information regarding the university’s emergency response procedures:

- Please review university emergency preparedness and response procedures posted at [http://ww.pugetsound.edu/emergency/](http://ww.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. Stay low, away from doors and windows, and as close to the interior hallway walls as possible. Wait for further instructions.

My contact information

James Bernhard
jbernhard@pugetsound.edu
Office: Thompson Hall 390G
Office hours: see course website

Email is generally the easiest way to contact me. I read my email frequently and try to respond to it in a timely fashion. My office phone number is 253-879-3812, but reaching me by email is usually much faster and easier than by phone.

Please feel free to contact me with any questions you have regarding the course. I look forward to an enjoyable class with you this semester!