Course Description:
This is the second course in statistics for those interested in spatial applications. The course will cover ANOVA, correlation, and regression techniques. Regression is one of the most widely used statistical techniques, and this material will receive a thorough treatment. Examples of analysis in geographic research will be provided throughout the course.

Prerequisites:
An introductory course in statistics

Required Materials:
Statistical Methods for Geography. (2010). Third Edition. Sage Publications. (You can probably get by with the second edition, but it will be up to the student to confirm that assigned problems are the same.)

You will need a hand-held calculator for homework and exams. You may not use a cell phone or computer calculator for the exams.

Many of the exercises will require the use of statistical software. You are free to choose your own software. The R software environment will be introduced and in class examples will use this software. R is freely available for download (http://www.r-project.org/) and is available in the Geographic Information and Analysis Laboratory (GIAL), located in 145 Wilkeson. Class accounts will be provided to enable access to this lab.

Assignments and course materials will be posted on UBLearns.

Internet access will be required for some assignments.

Grading:

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<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
<th>Letter Grade</th>
<th>Translation</th>
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<tbody>
<tr>
<td>Homework and Attendance</td>
<td>&gt;= 90</td>
<td>A</td>
<td>High Distinction</td>
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<tr>
<td>Four exams</td>
<td>&gt;= 80 and &lt; 90</td>
<td>B</td>
<td>Superior</td>
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<td></td>
<td>&gt;= 70 and &lt; 80</td>
<td>C</td>
<td>Average</td>
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<td></td>
<td>&gt;= 60 and &lt; 70</td>
<td>D</td>
<td>Minimal Passing Grade</td>
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<td></td>
<td>&lt; 60</td>
<td>F</td>
<td>Failure</td>
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Homework:
Assignments will be distributed through UBLearns. In order to receive full credit, homework assignments must be turned in during class on the due date. Assignments turned in after the due date but before the end of the following class meeting will receive a maximum of 50% of the points available. No assignments will be accepted after the following class meeting.

Exams:
Exams will consist of statistical problem solving and some short answer questions. Makeup exams will only be given with a medical excuse and documentation. You must contact me before the exam to arrange a makeup. Exams answers will be completed in provided bluebooks or on the exam sheet itself. A formula sheet will be provided for the exams. This sheet will be posted approximately one week before the exam so that students can familiarize themselves with the material. Students will only be allowed to have pencils and calculators during the exams.

Attendance:
Attendance is mandatory. You should contact a classmate to get any class notes and announcements that you miss.

Academic Integrity:
Any academic misconduct (plagiarism, cheating on exams, and copying homework) will be penalized with a zero score on the given assignment or exam. I promise to do my best to evaluate each assignment and exam solely on its content and in an impartial manner.

Outline:
1. Introduction and review of probability and hypothesis testing
2. Common methods of statistical inference
   a. Analysis of variance (ANOVA)
   b. Correlation
   c. Regression

Class Calendar:
A class calendar will be maintained on UBLearns. This calendar will include readings, lecture topics, homework due dates, and exam dates. The calendar is tentative and subject to change. I will announce schedule changes in class as soon as possible.

Course TA:
Xiaonan Tai
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