ST311 Introduction to Statistics  
Section 002  
Spring 2011, NC State University

Instructor: Paul Bernhardt  
Email: pwbernha@ncsu.edu  
Office: 1101 SAS Hall  
Office Hours: To be announced on the course website.  
Course Webpage: http://www.stat.ncsu.edu/courses/st311/  
Class time and Location: 10:15AM-11:05AM, MoWeFr in 210 Harrelson Hall

Adding the course:  
All registration for the course is done through the myPack portal system. The department does not exceed the caps on sections. If seats are open on myPack portal, students are welcome to take them on a first come first serve basis. Instructors cannot “sign” students into the course.

Course Goals:  
To develop statistical thinking skills to apply in your field of study and everyday life.

Course Catalog Description:  
*Credit not allowed if student has prior credit for another ST course or BUS 350*  
Examining relationships between two variables using graphical techniques, simple linear regression and correlation methods. Producing data using experiment design and sampling. Elementary probability and the basic notions of statistical inference including confidence interval estimation and tests of hypothesis. One and two sample t-tests, one-way analysis of variance, inference for count data and regression.

GER Objectives:  
This course satisfies the General Education Requirement (GER) in Mathematical Sciences. As a part of the GER, ST311 will provide instruction and guidance that help students to:  
1. improve and refine mathematical problem-solving abilities and  
2. develop logical reasoning skills.

Required Materials:  
ISBN: 0-495-47694-3 (three ring bind edition with access to online version of the text and student solutions manual).  
Alternatively students may purchase the book only in electronic form from www.ichapters.com for approximately $70 (this form does not include the students solution manual).

Students also need to purchase a WebAssign access code online by logging in to the WebAssign website http://webassign.ncsu.edu or at the University Bookstore. Approximately $15.

Students with Disabilities:  
Reasonable accommodations for examinations will be made for students with verifiable disabilities. Any student who feels they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss specific needs. In order to receive these accommodations, students must register with Disability Services for Students at 1900 Student Health Center, Campus Box 7509, 515-7653. For more information on NC State's policy, please see http://www.ncsu.edu/policies/academic_affairs/pols_regs/REG205.00.28.php

Attendance and Communication:  
Students are expected to attend all regularly scheduled meetings of the course. Students are also expected to check regularly for email sent to the preferred email address. You may change your preferred email address in the myPack Portal.
Grades:
It is the student’s responsibility to be aware of their grade in the course.

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<thead>
<tr>
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<th>Points</th>
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<tbody>
<tr>
<td>In-class activities and participation</td>
<td>50</td>
</tr>
<tr>
<td>Homework</td>
<td>100</td>
</tr>
<tr>
<td>2 Midterm Exams</td>
<td>100</td>
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<tr>
<td>Total</td>
<td>550</td>
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Grading scale:
Grades will be determined by calculating the student’s total out of the available points and comparing with a predetermined cutoff point scale as follows:

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<tr>
<th>Grade</th>
<th>F</th>
<th>D</th>
<th>C-</th>
<th>C</th>
<th>C+</th>
<th>B-</th>
<th>B</th>
<th>B+</th>
<th>A-</th>
<th>A</th>
<th>A+</th>
</tr>
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Incomplete (IN) grades are given only as specified in university regulations. Students who wish to audit the course with satisfactory status must register officially for the course and will be required to attend all class meetings and take both midterm exams.

In Class Activities: This course is taught in student centered manner. During lecture periods students will complete activities and exercises that illustrate course content. The instructor will randomly select activities to grade and students will receive points accordingly.

Homework:
Homework will be due every Tuesday at midnight (11:59PM). Homework assignments will be delivered through WebAssign. Each assignment will be available Saturday at 8:00AM the week before it is due. Study guides for each assignment will be posted on the course web site. Students are encouraged to review the study guide before beginning each assignment. Extensions will not be granted on homework assignments. Any assignment not submitted on time will receive a zero. Twelve assignments will be given and the lowest two (including missed assignments) will be dropped.

Midterm Exams:
Midterm exams will be closed book, closed notes. A formula sheet will be provided and is posted on the course website. You should bring your own calculator. All cell phones, PDAs and any web-enabled devices must be turned off and put away during tests. These devices can NOT be used as calculators or time keeping devices during the test. Students may NOT share calculators during exams. Students may NOT leave the room and return for any reason during an exam. Requests for re-grading of exams must be submitted in writing to the instructor.

Students who are unable to attend an exam for a legitimate unavoidable reason may take a make-up exam only if the student provides suitable documentation (such as a note from a physician) of the absence. Students who have a personal emergency (extreme family illness or death, etc) should contact the Division of Undergraduate Academic Programs (Park Shops, 515-3037) to obtain documentation. According to university policy, a student must notify the instructor in advance if s/he will miss an exam. If it is not possible to notify the instructor in advance, the instructor must be given notice as soon as possible after the exam. Make-up exams will be given at a single time (to be announced) and will be common to all sections.

Final Exam:
This course has a final exam scheduled for May 4, 2010 at 6:00-9:00PM. The location will be announced later in the semester. The final exam is comprehensive. The above rules for midterm exams also apply to the final exam.
Student Code of Conduct:
The instructor of this course is committed to upholding the University policy on academic integrity, as described in the Code of Student Conduct, which can be found at:

http://www.ncsu.edu/policies/student_services/student_discipline/POL11.35.1.php
(See especially Section 1 and Sections 7 through 12)

Other:
The instructor reserves the right to routinely record classes and meetings with video, audio, photographic and other methods. These recordings will be used to improve the classroom environment, quality of the classroom experience and to insure academic integrity. Also, no food is allowed in the classroom.

Course Outline:
Data collection
Graphical and numerical summaries
Normal distribution
Sampling distributions
Confidence intervals
Hypothesis testing
Regression and correlation
Inference for regression
Experiments
Randomization tests
Review

Tutorial Center: The Statistics Tutorial Center (1101 SAS Hall) will have an ST311 tutor available for many hours during the week. The schedule will be posted on the course web site. You can stop in to see any ST311 tutor for help.