Course Syllabus: MA 110A Statistics

Dr. Darien Lauten    Fall, 2005
Mon. & Wed.  2:30 - 3:45 PM   Three credits

Office Location:  Regis third floor  (306)  Phone:  Office: 603 897 8602
Office Hours:  M:  2:00 –  2:30 (Mem), 4 –  5 PM (Regis)  Home:  603 868-7133
T:  10:00 - 12:00 (Regis), 2:00 - 4:00 (Regis)  e-mail address:  dlauten@rivier.edu
W:  2:00 –  2:30 (Mem), 4 –  5 PM (Regis)
Note that the ½ hour office hours are conducted in the classroom of the course they precede. All students
from any course are welcome during those times.

Brief Course Description: An introduction to the basic techniques of statistical analysis for students who
need a working knowledge of procedures for evaluating statistical data. Topics include normal distribution,
the central limit theorem, parameter estimation, hypothesis testing, correlation, and linear regression.


Required Materials (bring to every class meeting): Your textbook, three-ring binder with pockets, hole
punch, miniature stapler, a 6” ruler, and two colored pencils. Although not required, you will find a
graphing calculator extremely useful. A TI-83 or TI-83+ is most used on campus. The overhead-projector
calculator used in class will be a TI-83, and your instructor is most familiar with the TI-83. You are
required to have a calculator.

Course Objectives:
· To involve students in the active doing of statistics
· To engage students in mathematical thinking
· To help students learn to differentiate between ethical and unethical use of statistics
· To develop students’ abilities to detect and interpret patterns and structure in real data
· To engage students in developing mathematical models of problems and in solving problems
· To help students learn to read mathematics and to become independent learners of mathematics
· To develop students’ conceptual understanding of the major ideas of statistics including, but not limited
to, data and distributions (discrete and continuous), numerical summary measures, fitting a line to data,
sampling distributions, and confidence intervals.
· To engage students in the solution of problems, especially open-ended problems
· To develop students’ abilities to write clearly and concisely about mathematical ideas and problem
  solutions
· To develop students’ abilities to work together, recognizing that we can all benefit by listening to each
  others’ ideas and approaches and by learning to communicate clearly our own ideas
· To engage students in the use of technology to interpret data

Teaching Strategies:
· Active student engagement in group work and discussions
· Exploratory, intuitive activities that involve students in doing mathematics
· Large and small-group discussions with an expectation of student participation and questioning
· Student reading of mathematics and studying of examples
· Student writing about mathematical ideas
· Weekly quizzes
Course Requirements:
• Homework (collected or checked each class period)
• Attendance at all scheduled class meetings
• Active participation and engagement in full-class and small-group discussions and activities
• Graded assignments and project(s)
• Weekly quizzes
• Tests (3) and a cumulative final examination

Methods of Assessment and Computation of Grades:
Preparation for each class and timely completion of homework 10%
Active engagement in class activities and discussions, attendance, punctuality, and respect for others 15%
Quizzes (10% of quiz grades will be dropped) and graded assignments 25%
Tests, and final examination 50%

Resources
Mathematics Conference Room (in Regis Hall, see the MACS Administrative Assistant if the room is locked). Please feel free to use the Mathematics Conference Room whenever a faculty meeting is not being held (see schedule on door).
FYI: The Math Conference Room:
• Contains many other statistics books with solutions.
• Is a great place to meet others from your class for collaboration on assignments.
• Is near my office for quick questions when you get stuck.
• Is a cozy place to study. (You can bring food as long as you clean-up after yourself.)

Please visit during my office hours and send email with your questions.

Readings and Assignments
There will be regular (weekly) short quizzes. You are responsible for all Review Questions

<table>
<thead>
<tr>
<th>Week</th>
<th>Monday</th>
<th>Wednesday</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>W Sept. 28. Review Chapters 1, 2, 3 Choose a partner for the upcoming project.</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Assignment</td>
<td>Notes</td>
</tr>
<tr>
<td>------------</td>
<td>---------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>13 M Nov. 28.</td>
<td>Review for chapter 6, 7 test. First day for project presentation.</td>
<td>W Nov. 30. Test on chapters 6, 7. Read 8.1 pages 325 - 335. Sampling Distributions</td>
</tr>
<tr>
<td>15 M Dec 12.</td>
<td>Review</td>
<td></td>
</tr>
</tbody>
</table>

**Classroom Policies**

- Attendance will be taken each class period. You are expected to attend all classes. Missing classes will affect your grade, unless you provide a documented reason for your absence. If you miss class, you are responsible for getting the notes from a classmate submitting assigned work on time, and returning to class with all assignments up to date. To be "excused" from a class you must provide documentation from a professional source (physician, court, funeral director, campus nurse, etc.) If you must miss class because of serious illness or emergency, please inform me as far
ahead as possible by note, email, or phone message. Students on athletic teams must provide written notice of forthcoming athletic events at least two class meetings before the absence.

- Assignments, computer labs, and projects are due on the assigned date whether or not you are present in class. Full credit is given only for assignments handed in on time. Late assignments are worth $\frac{1}{2}$ credit and must be submitted before the test on the chapter. If you must miss class, place your assignment in the mailbox by my office door.

- Each week there will be a short quiz on material presented the previous class meeting. Ten percent of your quiz grades will be dropped. You may not make up a missed quiz. A quiz missed for any and all reasons counts toward the 10% of dropped quiz grades.

- In order to make up a missed test or final examination, you will need a documented note. (See above). Again, quizzes may not be made up. (See above).

- Read lightly each section before we discuss it in class. After we have gone over a section in class, reread and study the section. I intend to help you learn to read mathematics. You are responsible for all assigned material. To the extent time allows, I will cover all material in class before it is assigned. Studying each section means working out the book examples on your own.

- Class participation and active engagement in the class discussions and activities, and group work are required and will reflect in your grade.

- You should expect to average five to eight hours studying for this class each week. This includes reading the textbook, working out text examples on your own, reviewing and “filling-in” class notes, doing assignments and graded assignments, and preparing for tests and examinations. If your studying requires significantly more time than this, please see me. You may be under-prepared for the course and together we will need to discuss and seek a remedy for the situation. Similarly, if you are spending significantly less than this amount of time, perhaps you already know this material and should be in a different course.

- All work submitted on tests must be entirely your own. Test questions may not be discussed with other class members. Behavior contrary to this will result in a failing grade and written notification to the department chair and dean for appropriate action.

- If you miss more than 3 hours of class (one class meeting), your name will be turned in to the department chair, your academic advisor, and dean. You also must make an appointment to see me to discuss the advisability of your remaining in the course for the remainder of the semester.

- Any behavior that is disruptive to others will not be tolerated.

- Please silence cell phones in class. They are disruptive to the instructor and other students. If, in an emergency, you must respond to a silent incoming message, please leave the room quietly and respond in the hall after you have closed the classroom door quietly.

- You are expected to hold full responsibility for your learning and to seek out opportunities for independent learning.

**Americans with Disabilities Act (ADA):** Rivier College wants to provide reasonable accommodations to students with disabilities. To accomplish this goal effectively and to ensure the best use of our resources, the College expects students to provide timely notice of a disability to the Office of Special Services for verification and for evaluation of available options. Any student whose disabilities fall within ADA should inform the instructor within the first two weeks of the term of any special needs or equipment necessary to accomplish the requirements for the course. To obtain current information on this procedure, contact the Office of Special Services at telephone extension 8497.

**Academic Honesty:** Plagiarism and cheating are serious breaches of academic honesty. In general, plagiarism is defined as the presentation of someone else’s work in whatever form: copyrighted material, notes, film, art work, reports, statistics, bibliographies, and the like, as one’s own, and failing to acknowledge the true source. Quoting word-for-word, or almost so, or using the argumentation of another source without acknowledging this dependence also constitutes plagiarism. Cheating is defined as the giving or attempting to give or to receive unauthorized information or assistance during an examination or in completing an assigned project. Submission of a single work for two separate courses without the permission of the instructors involved is also a form of cheating.

If students are unsure whether a specific course of action would constitute plagiarism or cheating, they should consult with their instructor in advance.
Penalties for plagiarism and cheating vary with the degree of the offense and may take the form of the following academic sanctions:

- the grade of F for the work in question;
- the grade of F for the course;
- notification of the department chair and/or Academic Dean of the College of the misconduct of the student; recommendations that the student be suspended or dismissed from the College.

**Statement on Attendance:** The classroom is the heart of the educational experience at Rivier College because it provides, uniquely, a formal setting for the important exchanges among faculty and students. Regular and punctual attendance at all classes, essential for maximum academic achievement, is a major responsibility of Rivier College students. Failure to attend and contribute to the classroom environment significantly and demonstrably reduces the quality of the educational experience for everyone in the classroom. As a result, absences almost always impact quality performance.

As part of its commitment to a quality educational experience for all members of the Rivier community, the College formally requires specific attendance policies to be developed by its professors and reviewed by their Chair and Dean. Any form of attendance used by an individual professor as a criterion for evaluation must be specified in the course syllabus and presented to students during the first week of classes. These policies may include reasonable penalties and sanctions for excessive absences.

In the event of prolonged illness, accident, or similar emergency, it is the responsibility of the student to notify both the professor and the Office of the Dean. Students must remember that it is always their responsibility to make up the work they have missed during an absence from class. Students are directed to confer with their professors when their absences jeopardize satisfactory progress. Whenever a professor is absent without notification, students are expected to wait fifteen minutes before leaving and to sign an Attendance List, which a class member delivers to the Office of the Dean.

Instructors are required to record attendance and alert the Registrar when a student fails to attend the equivalent of two consecutive weeks of courses (2 absences for a course meeting once a week, 4 absences for a course meeting twice a week, 6 absences for a course meeting three times a week). The student will then be alerted that he/she is in danger of falling under the "habitual non-attendance" policy (see below).

**Habitual Non-Attendance Policy**

Habitual non-attendance of a course or courses will be considered academic misconduct subject to withdrawal from the course(s) not attended. Habitual non-attendance is defined as an absence in any course (for any reason whatsoever) equating to three full weeks of missed class sessions (3 absences for a course meeting once a week, 6 absences for a course meeting twice a week, 9 absences for a course meeting three times a week).

It is the responsibility of the student to notify the College of any intention to withdraw from a course or withdraw from the College. The College will attempt to resolve the issue of habitual non-attendance with the student; however, the College reserves the right to withdraw students who are no longer attending courses. Habitual non-attendance in one or more classes may result in administrative withdrawal from the class or classes affected withdrawal from the College or, in cases with extenuating circumstances, an administrative leave of absence. In such cases a grade of W or NF will be assigned to the classes affected according to the appropriate date published in the academic calendar.

Students who have attended no class sessions of a course or courses from which they are registered by the end of the drop/add period will be dropped from each class not attended. If a student never attended any courses during the drop/add period, the student will be withdrawn from his/her full schedule of courses.