

## Mat 120 Introductory Statistics

Fall 2009

**Instructor:** Dr. Russell Rainville

**Office:**

107 Brinkman House

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Administrative Assistant: Carol Weeks      Phone: 778-7120

**Office Hours:**

M and F      1:00 - 2:15

T and Th      9:00 - 11:00

Other times by appointment.

**Grading:** †

Your grade will be based on your scores on tests (there will be three of these) and a final examination. Each test will be 23% and the final will be 31% of your grade.

**Additional Resources:**

Group and Individual Mathematics Tutoring

Math Clinic

117 Franklin Hall

Terry Sawyer, Director      Phone: 778-7068

Clinic Hours: M T W Th      1:00 – 4:00

(Individual Tutoring is also available.)

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† Note: “*Equal educational opportunity is offered to students with special needs due to disability. Please notify the instructor if a reasonable accomodation is needed to meet course requirements.*”

**Text:**

*“Statistics”* Fourth Edition

by Freedman, D.; Pisani, R.; Purves, R.

**Attendance:\***

You are not required to attend class. However, you are responsible for all of the material which is covered in class and if you are not in class your test grades will probably suffer. Also, if you miss a class it will be more difficult for you to understand what happens in following classes.

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\* 1) *In the event of disruption of normal classroom activities due to an H1N1 swine flu outbreak, the format and attendance requirements for this course may be modified to enable completion of the course. Should this occur, you will be provided an addendum to the course syllabus that will supersede the initial version.*

2) *We are asking all members of the UMF community to help us in limiting the spread of this virus and other communicable illnesses. Students who are experiencing influenza-like symptoms a fever, sore throat, and/or cough should not attend class. These absences will not be penalized. You do not need to provide a note from your physician. However, it is your responsibility to notify all your instructors (via e-mail, telephone, or voice mail) as soon as possible about your condition. You will still be responsible for all course-related work, but appropriate accommodations will be provided.*

3) *Should you experience a fever, sore throat, and/or cough, you need immediately to contact the Health Center at 778-7200 or your own health care provider. According to the Maine Center for Disease Control, you must be placed in isolation (not in your room in the residence hall) either by returning to your home or by being placed in a pre-designated isolation room in one of our residence halls. If you remain on campus, the Health Center will assign you to available space where you must stay until you are free of fever, without fever-reducing medication, for a period of 24 hours or until your symptoms have resolved, whichever is longer. You should not return to class until that time. For more information about the progress of the H1N1 virus in Maine, please go to <http://www.maine.gov/dhhs/boh/index.shtml>*

**Outline of Material:**

- I) Descriptive statistics
  - A) Measurement
  - B) Measures of center
  - C) Measures of variation
  - D) Pictorial methods
- II) Probability and Sampling
  - A) Sampling with replacement
  - B) Sampling without replacement
  - C) Distribution of sample means
  - D) Binomial distributions
- III) Predicting
  - A) means
  - B) proportions
- IV) Hypothesis Testing
  - A) Normal tests
  - B) t tests
  - C)  $\chi$  - Square tests
- V) Regression
  - A) Correlation
  - B) Prediction