Stats 3Y03 (11/12) Course Outline

Table of Contents

Section 1 (C01) Instructor Information
- **Name:** [Aaron Childs](#)
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- **Office:** HH/213
- **Office Hours:** click [here](#)

Lectures
- Monday, Wednesday, Thursday 5:30pm-6:20pm in JHE/376

Textbook
(Required) "Applied Statistics and Probability for Engineers", Fourth Edition or Fifth Edition, by Montgomery and Runger, Wiley, 2007 or 2011.
(Older editions can be used as long as you have access to the exercises in the 4th or 5th edition.)

Custom Courseware
(Required) A custom courseware which contains the lab assignments (and some related suggested problems) will be available at the bookstore near the beginning of February

Library
There is a copy of the textbook on reserve in Thode library. The custom courseware is not available at the library.

Material to be Covered (from the **4th** Edition of the textbook)
- Probability (Sections 2.1-2.6, 2.8).
- Discrete random variables and probability distributions (Sections 3.1, 3.2, 3.4, 3.6-3.9).
- Continuous random variables and probability distributions (Sections 4.1-4.4, 4.6-4.8).
- Joint Probability distributions (Section 5.2, 5.3, 5.5).
- Random sampling and data description (Sections 6.1-6.4.6.6).

- Sampling distributions and point estimation of parameters (Sections 7.1-7.3).
- Statistical intervals for a single sample (Sections 8.1-8.3, 8.5).
- Tests of hypotheses for a single sample (Sections 9.1-9.3, 9.5).
- Two-sample t-test (Section 10.3).
- Simple linear regression (11.1-11.8)
- Analysis of variance (Section 13.2)

Material to be Covered (from the **5th** Edition of the textbook)
- Probability (Sections 2.1-2.6, 2.8).
- Discrete random variables and probability distributions (Sections 3.1, 3.2, 3.4, 3.6-3.9).
- Continuous random variables and probability distributions (Sections 4.1-4.4, 4.6-4.8).
- Joint Probability distributions (Section 5.1, 5.2, 5.4).
- Random sampling and data description (Sections 6.1-6.4.6.6).
- Sampling distributions and point estimation of parameters (Sections 7.1-7.3).
- Statistical intervals for a single sample (Sections 8.1, 8.2, 8.4).
- Tests of hypotheses for a single sample (Sections 9.1-9.3, 9.5).
- Two-sample t-test (Section 10.2).
- Simple linear regression (11.1-11.8)
- Analysis of variance (Section 13.2)

Lab Assignments
- There will be 3 lab assignments due on the following **tentative** dates (which are subject to change)
  - 11:59pm on Friday March 2nd
  - 11:59pm on Friday March 16th
  - 11:59pm on Friday April 6th
- Lab assignments are in the custom courseware
- Lab assignments will require the use of Minitab (any version should be okay)
- Minitab is available in the campus computer labs
- Minitab can also be purchased online at http://www.onthehub.com/minitab/minitab_english.htm

Tests
- There will be three 75 minute tests, held in the evenings on the following **tentative** dates (which are subject to change):
  - Friday January 27th
  - Friday February 17th
  - Friday March 23rd
- Only the McMaster standard calculator Casio fx-991 is allowed.
- You must bring your McMaster ID card to the tests.
- A formula sheet (which is posted on the course web site) will be provide with the test paper.
- All necessary tables will be provided with the test paper.

Course Evaluation

Lab Assignments	10%
Test 1	15%
Test 2	15%
Test 3	15%
Final Exam	45%

Notes:

- At the end of the course the grades may be adjusted, but this can only increase your grade and will be done uniformly. We will use the grade equivalence chart published in the Undergraduate Calendar to convert between percentages and letter grades.
- The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check their McMaster email and course websites weekly during the term and to note any changes.

Missed Work Policy

- If you are absent from the university for a minor medical reason, lasting fewer than 5 days, you may report your absence, once per term, without documentation, using the McMaster Student Absence Form. Absences for a longer duration or for other reasons must be reported to your Faculty/Program office, with documentation, and relief from term work may not necessarily be granted. When using the MSAF, report your absence to childsa@mcmaster.ca. Please note that the MSAF may not be used for term work worth 30% or more, nor can it be used for the final examination.
- If your MSAF form was received then the word "note" will appear in place of your mark on the marks page. This will show up within one week after you filled out the MSAF form. If you don't see the word "note" in place of your mark for the missed work one week after filling out the MSAF form, then send an email to Dr. Childs telling him the date that you filled out the MSAF form. If you do see the word "note" in place of your mark, then no follow-up is required.
- The perentage for a missed test or assignment will be added to your final exam.

Academic Dishonesty

Academic dishonesty consists of misrepresentation by deception or by other fraudulent means and can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. It is your responsibility to understand what constitutes academic dishonesty. For information on the various kinds of academic dishonesty please refer to the Academic Integrity Policy, specifically Appendix 3, located at http://www.mcmaster.ca/policy/Students-AcademicStudies/AcademicIntegrity.pdf The following illustrates only three forms of academic dishonesty: 1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained. 2. Improper collaboration in group work. 3. Copying or using unauthorized aids in tests and examinations.

Back to the Stats 3Y03 Information Page