

Stats 3Y03 (09/10) Course Outline

Table of Contents

Instructors Lectures Textbook Custom Courseware Library Material to be Covered Lab Assignments Tests Course Evaluation Academic Dishonesty

Instructors

Section 1 (C01) Instructor Information

- Name: <u>Aaron Childs</u>
- email: <u>childsa@mcmaster.ca</u>
- Office: HH/213
- Office Hours: click here

Section 2 (C02) Instructor Information

- Name: <u>Senay Asma</u>
- email: <u>asmas@math.mcmaster.ca</u>
- **Office:** HH/204
- Office Hours: Monday 2:00pm-4:00pm, Tuesday 10:30am-11:20am, Thursday 2:00pm-4:20pm

Lectures

- Section 1 (Dr. Childs): Tuesday, Wednesday, and Friday 12:30pm-1:20pm in HSC/1A6
- Section 2 (Dr. Asma): Monday and Thursday 12:30pm-1:20pm in HH/109, and Tuesday 1:30pm-2:20pm in HH/109

Textbook

(Required) "Applied Statistics and Probability for Engineers", Fourth Edition, by Montgomery and Runger, Wiley, 2007.

(Older editions can be used as long as you have access to the exercises in the 4th 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

- 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)

Lab Assignments

- There will be 3 lab assignments due on the following **tentative** dates (which are subject to change)
 - 11:59pm on Friday March 5th
 - 11:59pm on Friday March 26th
 - 11:59pm on Friday April 9th
- 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):
 - Wednesday February 3rd
 - Wednesday March 10th
 - Wednesday March 31st
- 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.
- If any of the tests are missed because of a family matter or illness you should contact your Associate Dean WITHIN 48 HOURS of the missed work with the appropriate documentation. In this case, the percentage for the missed test will be added to your final exam.
- 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.

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/univsec/policy/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