

## Course Information

### STAT 3350/MATH 3350 Design of Experiments Winter 2018

- **Lecture**

Lectures MWF 08:30AM–09:30AM LSC-COMMON AREA C332

- **Instructor**

Name: Stuart Carson

Office: Chase 113

Email: st925638@dal.ca

Office hours: Monday, Wednesday, 10:00AM-11:30AM or by appt.

Location: Office hours will be held in the Math and Stats Resource center, (Chase 119), if available; Chase 113 otherwise.

- **Marking Scheme**

Assignments 25%

Midterms 25%

Final Exam 50%

- **Assignments**

There will be five assignments of equal weight.

- **Synopsis of Objectives**

The aim of the course is to develop the fundamental statistical concepts required for designing efficient experiments to answer real questions. The first main subject is unit variation and control. The basic concepts of replication, blocking and randomization are each examined. The second main subject is treatment questions and structure. The ideas of factorial designs, split-plot and incomplete plot designs are presented. We conclude with a look at response surface methodology.

- **Exams**

The two equally weighted midterms will be held in class. The final exam (3 hours) will be as scheduled by the registrar.

- **Conversion to Letter Grades**

Total grade	Letter grade
90-100	A+
85-89	A
80-84	A-
77-79	B+
73-76	B
70-72	B-
65-69	C+
60-64	C
55-59	C-
50-54	D
<50	F

- **Textbook**

This course relies rather heavily on the text **Design and Analysis of Experiments, 9th ed.**, by Douglas C. Montgomery.

- **Scope** We will cover much of the material in the text. We will cover Chapters 1-3 (quickly), and Chapter 4 (section 4.1,4.2). Emphasis will then be on Chapters 5-8. Selections from Chapters 11, 13 and 14 may be introduced time permitting.

- **Course Website**

There will be a BrightSpace page for the course which will be used to post announcements and other ancillary materials. The concepts of the course will be presented in the lectures. Come to class.

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- **Pre-requisite**

STAT 2080, MATH 2030 and either MATH 1010 or STAT 2060

An online statistics refresher is available at <http://davidmlane.com/hyperstat/>.

- **Statement of Accommodation**

Students who require academic accommodation for either classroom participation or the writing of tests, quizzes and exams should make their request to the Office of Student Accessibility & Accommodation (OSAA) prior to or at the outset of each academic term. Please see [www.studentaccessibility.dal.ca](http://www.studentaccessibility.dal.ca), email [disabilities@dal.ca](mailto:disabilities@dal.ca) or phone 494-2836 for more information or to obtain Form A - Request for Accommodation.

A note taker may be required to assist a classmate. There is an honourarium of \$75 for the course. If you are interested, please go to the Advising and Access Services Centre, Killam G28 for more information or email [notetaking@dal.ca](mailto:notetaking@dal.ca)

Please note that your classroom may contain specialized accessible furniture and equipment. It is important that these items remain in the classroom so that students who require their usage will be able to participate in the class.

- **Statement on Intellectual Honesty**

Please see the section in the undergraduate calendar on Intellectual Honesty:

[http://www.dal.ca/content/dam/dalhousie/pdf/university\\_secretariat/Policy%20on%20Intellectual%20Honesty.pdf](http://www.dal.ca/content/dam/dalhousie/pdf/university_secretariat/Policy%20on%20Intellectual%20Honesty.pdf).

- **Classroom Etiquette**

1. Cell phones and other texting devices should be turned OFF before class begins.
2. If you must, on rare occasions, leave class early; please take a seat near the door so that your exit will not disrupt the class unduly. Similarly, try to arrive at class on time, and enter quietly when late.
3. Refrain from unnecessary talking when the instructor or a student is speaking to the class.
4. Treat your instructor and your fellow students with the courtesy with which you would like to be treated! R-E-S-P-E-C-T. Violators will be required to wear a feather boa and perform an *a cappella* rendition of this Aretha Franklin classic for the benefit of the class (and perhaps YouTube since the cell phone policy at item 1 will be suspended if more than 50% of the class is giggling at any one time). I do have a pink boa and I'm not afraid to use it.

[https://www.youtube.com/watch?v=\\_DZ3\\_obMXwU](https://www.youtube.com/watch?v=_DZ3_obMXwU)