

**MATH 376 BC (60476) Introduction to Mathematical Statistics**

Spring, 2020      Tuesday, Thursday 10:00am -11:40 NAC 6/115

Text: *Introduction to Mathematical Statistics*, by Hogg , McKean and Craig; Pearson - 8<sup>th</sup> Edition (However, the 7<sup>th</sup> Edition will do fine).

The book is concise and our goal will be to proceed through all six chapters in order with related topics introduced in class lectures.

Grading: There will be three in class tests [after Section 4.2, after Chapter 5 and after Chapter 7] and a final exam. Some of the homework will be collected and roughly graded. The homework grade will count as one test. The final counts 40 % of the grade. You should be warned that there are no makeups. Instead the remaining tests and the final will simply be counted more heavily.

Please attend regularly and be on time.

Office Hours: Tuesday and Thursday 9:00-9:50am  
Other times by appointment.

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## COURSE LEARNING OUTCOMES

**DEPARTMENT:**

**Mathematics 376**

### **COURSE LEARNING OUTCOMES**

*Please describe below all learning outcomes of the course, and indicate the letter(s) of the corresponding Departmental Learning Outcome(s) (see list at bottom) in the column at right.*

After taking this course, the student should be able to:	Contributes to Departmental Learning Outcome(s):
1. Understand the statistical and mathematical concepts underlying standard statistical methodology.	a, e(1), e(2)
2. Use probability theory, asymptotic expansions and approximations, and inequalities to derive properties of statistical procedures.	a, e(1), e(2)
3. Develop an intuition for the models and methodology..	c

### **COURSE ASSESSMENT TOOLS**

1. The average of class examinations and graded homeworks: 60% of grade
2. Comprehensive written final exam: 40% of grade.

### **DEPARTMENTAL LEARNING OUTCOMES**

The mathematics department, in its varied courses, aims to teach students to

- a. perform numeric and symbolic computations
- b. construct and apply symbolic and graphical representations of functions
- c. model real-life problems mathematically
- d. use technology appropriately to analyze mathematical problems
- e. state (e1) and apply (e2) mathematical definitions and theorems
- f. prove fundamental theorems
- g. construct and present (generally in writing, but, occasionally, orally) a rigorous mathematical argument.