

## COURSE OUTLINE

### STAT 350: Mathematical Statistics I

#### Instructor(s)

**Lecturer** Dr. Min (Mark) Tsao, Professor

**Research Area** Nonparametric Statistics, Applied Statistics

**Email** mtsao@uvic.ca<sup>1</sup>

**Phone** 250-721-7460 (Use only in case of emergency)

**Office** David Turpin Building A544

#### General Course Information

**Number of Units** 1.5

**Pre-requisites** One of STAT 252, STAT 254, STAT 255, STAT 260; and MATH 200 or MATH 205.

#### Office Hours and Assistance

**Monday** 1:30 pm to 2:30 pm, DTB A544

**Thursday** 2:30 pm to 4:30 pm, DTB A544

#### Learning Objectives

To learn basic probability and mathematical statistics material in preparation for studying more advanced theories in mathematical statistics and applied statistics.

#### Course Material and Online Resources

**Textbook** Bain, L. J. and M. Engelhardt, Introduction to Probability and Mathematical Statistics, 2nd. Edition. Duxbury Press, 1992.

**Course webpage** Visit the course webpage for homework assignment questions and solutions, announcements and other information. In particular, if you need some information about this course, please check this course webpage first before approaching the instructor. Chances are that you can find it there. The address is:  
<https://coursespaces.uvic.ca/course/view.php?idnumber=20170913077>

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<sup>1</sup>Emails should be used primarily for administrative purposes/questions. For technical questions about the course material or homework, face-to-face discussions are most effective.



**Calculator** Students will need a calculator for this course. The only acceptable calculator for all courses offered by the Department of Mathematics & Statistics is the Sharp EL-510R, EL-510RN or EL-510RNB. It may be purchased at the UVic Bookstore or elsewhere for about \$12.

## Class Meetings

Mondays and Thursdays: 8:30 am – 9:50 am in Cornett Building A121.

## Specific Topics

Topics include random variables and their distributions, properties of random variables, joint distributions of random variables, functions of random variables and limiting distributions. The course covers roughly Chapters 1 through 7 of the textbook.

## Homework Assignments

There are about six assignments. Reasonable amount of discussions among students are encouraged but each student must independently write his or her own solution. *Two identical or almost identical assignments will both receive no points.*

## Examinations and Grading

There will be a closed book midterm and a closed book final examination. Weightings of all course components and the midterm date are:

Homework: 30%; Midterm (Monday, October 23): 20%; Final (Time TBA): 50%.

**Accessibility** Students with diverse learning styles and needs are welcome in this course.

In particular, if you have a disability/health consideration that may require accommodations, please feel free to approach me and/or the Centre for Accessible Learning (CAL) as soon as possible. The CAL staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations <http://uvic.ca/cal>. The sooner you let us know your needs the quicker we can assist you in achieving your learning goals in this course.

**Grading** Percentage scores will be converted to letter grades according to the university-wide standard table

<http://web.uvic.ca/calendar2017-05/undergrad/info/regulations/grading.html#>.

**Final Examination** Off-schedule final examinations (i.e., deferred examinations) are given only in accordance with the university policy as outlined in the Calendar. If you are unable to write a final examination due to illness, accident or family affliction, please refer to the following webpages for detailed instructions how to proceed:

<http://web.uvic.ca/calendar/undergrad/info/regulations/concessions.html>



Students are **strongly advised not to make plans for travel or employment during the final examination period** as special arrangements will not be made for examinations that conflict with such plans.

**Supplemental Examinations.** The Department of Mathematics and Statistics does not award 'E' grades or offer Supplemental Examinations in any of its courses.

## Policies and Ethics

**Attendance** The university Calendar states 'Students are expected to attend all classes in which they are enrolled.'

<http://web.uvic.ca/calendar/undergrad/info/regulations/attendance.html>

Our courses are conducted on that basis. If you miss an announcement (information concerning midterms, corrections to assignment, etc.) because you did not attend class, you must accept the consequences of not having learned of the change.

**Guidelines on Religious Observances** Where classes or examinations are scheduled on the holy days of a religion, students may notify their instructors, at least two weeks in advance, of their intention to observe the holy day(s) by absenting themselves from classes or examinations.

**Missing work** If you miss the midterm and/or an assignment due to illness, accident, or family affliction, you should notify me as soon as possible and provide a written request to be excused as well as supporting documentation. Once your request is approved, the weight of the missed assignment will be divided evenly among the remaining assignments, and that of the missed midterm will be divided evenly among the remaining components of the course resulting in 40% for the homework assignments and 60% for the final exam.

**Academic Integrity** Academic integrity is intellectual honesty and responsibility for academic work that you submit individual or group work. It involves commitment to the values of honesty, trust, and responsibility. It is expected that students will respect these ethical values in all activities related to learning, teaching, research, and service. *Plagiarism and other acts against academic integrity are serious academic offenses.*

### **The responsibility of the institution**

Instructors and academic units have the responsibility to ensure that standards of academic honesty are met. By doing so, the institution recognizes students for their hard work and assures them that other students do not have an unfair advantage through cheating on essays, exams, and projects.

### **The responsibility of the student**

Plagiarism sometimes occurs due to a misunderstanding regarding the rules of academic integrity, but it is the responsibility of the student to know them. If you are unsure about the standards for citations or for referencing your sources, ask your instructor. Depending on the severity of the case, penalties include a warning, a failing grade, a record on the students transcript, or a suspension.

It is your responsibility to understand the University's policy on academic integrity:



<http://web.uvic.ca/calendar/undergrad/info/regulations/academic-integrity.html#>

