

STA4321 Introduction to Mathematical Statistics

Spring 2016

Department Of Statistics, Florida State University

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Office hours: W 2 – 3pm, or by appointment

Class Time & Location

M W 9:30-10:45am in OSB 110

Prerequisite

A grade of C- or better in MAC 2313 (Calculus III).

This is a 3 credit course. All students must register for 3 credits to receive a grade.

* **Note:** Credit not given for both STA 4321 and STA 4442.

Course Objective

Students will learn some basic concepts and methods in mathematical statistics. This course focuses on topics including basic probability theory, counting methods, conditional probability, random variables, discrete and continuous distributions, bivariate distribution, expectation, variance, covariance, moments and moment generating functions.

Class Materials

Textbook: *A First Course in Probability*, ninth edition, by Sheldon Ross.

Calculator: A scientific calculator is required for this class. Cell phones are **NOT** allowed to use as calculators during quizzes and exams.

Blackboard Website: The Blackboard class website is <http://campus.fsu.edu/>. You can login using you FSUID username and password. Class notes, homework, your grades, announcements and other important information will be available through this site. It is your responsibility to check Blackboard and be aware of all information posted on Blackboard.

Course Grade

Your grade will be earned by performance according to the following:

Homework (0%): Homework will be typically assigned every Wednesday after class and is due by the following Monday. Although it will not be collected or graded, it is designed to help you with quizzes and exam tests. Some of the test problems will be the same or very similar with homework problems. Homework solutions will be provided on the Blackboard website by the following Monday. You are encouraged to discuss with your classmates about the homework.

Quizzes (40%): There will be a quiz in class every Wednesday starting from the second week unless the day is a holiday or midterm exam is on the same day. The quizzes are closed book and closed notes. You are supposed to finish the quiz on your own and cannot communicate with your classmates. You have to turn in your quiz on time and you will get zero if you fail to turn in your quiz before I leave the classroom. Your lowest two quiz scores will be dropped and there is **NO** make-up quiz.

Midterm Exam (30%): The midterm exam will be given in class on Wednesday, March 2nd (tentative). For the midterm exam, you can bring one page of hand-written two-sided 8½in × 11in sheet of notes, and a scientific calculator. I expect every one of you to take the midterm exam at scheduled time. However, I can understand sometimes circumstances beyond your control may keep you from class. In this case, please contact me **BEFORE** the exam and bring necessary documentation. I will help arrange makeup exam.

Final Exam (30%): There will be a non-cumulative final exam. You can bring one page of hand-written two-sided 8½in×11in sheet of notes, and a scientific calculator to the final exam. Final exam is on Thursday April 28th at 10am-12noon in OSB 110. Approval to take the final exam not at the exam time must go through your academic dean as outlined in the university's final exam policy.

Extra Credit (5%): I will take attendance five times in class. When I take attendance, make sure that you sign the roster before you leave class. If you attend the class but do not sign the roster, you will not get the extra credit.

Overall Course Grade

Blackboard is used to record your quiz and exam scores. All grades will be recorded as percentages, and these percentages (not points) will be used in your overall course grade calculation as follows:

- (i) calculate the average of your quiz percentages, this is your Quiz Average,
- (ii) overall numerical course grade = $(0.4 * \text{Quiz Average}) + (0.3 * \text{Midterm Exam}) + (0.3 * \text{Final Exam}) + (0.05 * \text{Attendance})$, rounded to the nearest whole number.

Letter	Grade	Letter	Grade	Letter	Grade	Letter	Grade
A	≥ 93	B	83 – 86	C	73 – 76	D	63 – 66
A-	90 – 92	B-	80 – 82	C-	70 – 72	D-	60 – 62
B+	87 – 89	C+	77 – 79	D+	67 – 69	F	≤ 59

The total score on blackboard does **NOT** reflect your true grade. You have to calculate your course grade using the formula above.

Missing Grades:

It is your responsibility to make sure that your grades are correctly imputed into Blackboard. We will do our best to post all the grades correctly, but in the case of a missing or incorrect grade, please contact your TA and me within two weeks of the grades being posted. I cannot promise to resolve a missing grade issue if it is reported more than two weeks after the grades are entered.

Grading Appeals

During the course of the semester, if you believe that a paper was improperly graded by your TA, email her and make an appointment to go to her office and discuss with her. If the matter is not resolved after that discussion, then email me (Shuguang) and ask me to re-grade your paper.

Class Policies

Attendance, absence, and drop/withdrawal

First day attendance is mandatory per university regulations. Drop/Withdrawal deadlines are given in the University's academic calendar at http://registrar.fsu.edu/dir_class/spring/acad_cal.htm. You are supposed to attend every class. However, if you have to miss a class, I expect you to keep up-to-date with the lectures, announcements and homework by getting in touch with your classmates TA or me.

Class cancellations

If I ever need to cancel class, I will email you and post an announcement on our Blackboard in advance. If the University closes due to bad weather, or any other

reason, then class is automatically cancelled, so please check the University alerts webpage <http://alerts.fsu.edu/> at such times.

Emails

Please check your @my.fsu.edu email every day. If you need to contact me via email, use your university email and include your full name and course code (STA 4321) in the email. I will respond to you within two business days. If you do not receive a response within two days, come to meet me after my class or during my office hour.

Classroom policy

You are supposed to come to class on time. If you have to come late or leave early, please take the seats next to the door to minimize the disturbance to the class. Turn off your cellphone or turn it to silence mode. Do not talk with your classmates. It could affect and is disrespectful to other students. Do ask questions if you have any about the course material.

Students Completing an Incomplete or Auditing

If you are not actually registered for this course, make yourself known to me so that I may let you have access to our Blackboard websites. If you are completing an 'incomplete,' let me know who your former instructor was so that I may inform them of your grade at the end of the term.

Syllabus change policy

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and subject to change with advance notice.

University Policies

University Attendance Policy:

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

Academic Honor Policy:

The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to "... be honest and truthful and ... [to] strive for personal and institutional integrity at Florida State University. (Florida State University Academic Honor Policy, found at <http://dof.fsu.edu/honorpolicy.htm>.)

Americans With Disabilities Act:

Students with disabilities needing academic accommodation should:

- (1) register with and provide documentation to the Student Disability Resource Center; and
- (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request. For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center
874 Traditions Way
108 Student Services Building
Florida State University
Tallahassee, FL 32306-4167
(850) 644-9566 (voice)
(850) 644-8504 (TDD)
sdrc@admin.fsu.edu
<http://www.disabilitycenter.fsu.edu/>