

# STA 4442/5440: INTRODUCTION TO PROBABILITY

Spring 2023

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**Instructor:** Dr. Indrabati Bhattacharya

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**Office Hours:** MW 1:30pm-2:30pm

**Office Location:** 421 OSB

**TA:** Mr. Xinyu Zhou

**Email:** [xz19c@fsu.edu](mailto:xz19c@fsu.edu)

**Office Hours:** TTH 11am-12pm

**Office Location:** 106B OSB

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## Course Information

1. Course Meeting Place: 0110 OSB
2. Course Meeting Time: MWF 10:40am-11:40am

## Textbook and reading materials:

- **A First Course In Probability (9th Edition)** by Sheldon Ross, Pearson Education, 2014.  
This is the book we'll closely follow for lectures and homeworks.

**Course topics:** The following topics will be covered: combinatorial analysis, conditional probability and independence, random variables (discrete and continuous), moment generating functions, weak law of large numbers, central limit theorem, techniques for simulating random variables.

**Prerequisites:** MAC 2312. You need to be familiar with the theory and applications in Calculus I, II, III.

**Course Objectives.** At the end of the course, the students should be able to apply the basic principles and tools of probability to solve practical problems.

**Grading:** Homework will be 30% of the final grade. There will be two midterms each worth 20% of the final grade, and one final exam worth 30% of the final grade. The following scheme will be used to convert the percentage points to letter grades: [93-100]-A, [90-93)-A-, [87-90)-B+, [83-87)-B, [80-83)-B-, [77-80)-C+, [73-77)-C, [70-73)-C-, [67-70)-D+, [63-67)-D, [60-63)-D-, [0-60)-F.

## Course policy

- **Homework:** Homework assignments will be posted approximately biweekly. No late homeworks will be accepted. Homework assignments have to be submitted on canvas. Solutions can be typed, or hand-written and scanned afterwards.
- **Exams:** There will be two midterms and one final project. Midterms will be during the lecture hour, and they will be based on the all material covered by the time of the exams. Final exam will be cumulative. One hand-written formula sheet (front and back) is permitted in each of the exams. You may need a calculator for some questions. Here is a tentative schedule for the exams:
  - Midterm 1: 10:40 am-11:30 am, Friday March 10
  - Midterm 2: 10:40 am-11:30 am, Friday April 7
  - Final exam: 10:00 am-12:00 noon, Thursday May 4
- **Office hours:** You are strongly encouraged to come to the instructor/TA during their office hours. If your schedule conflicts with the office hours, you can make an appointment for an online or in person meeting. You may ask the instructor brief questions by e-mail, but you may be asked to come to office hours or meet in a video-conference session if the instructor thinks that the questions are better answered in person.

- **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://fda.fsu.edu/Academics/Academic-Honor-Policy>).
- **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.

Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from the Student Disability Resource Center has been provided. 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

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](mailto:sdrc@admin.fsu.edu)  
<http://www.disabilitycenter.fsu.edu/>

- **Free Tutoring from FSU:** On-campus tutoring and writing assistance is available for many courses at Florida State University. For more information, visit the Academic Center for Excellence (ACE) Tutoring Services' comprehensive list of on-campus tutoring options at <http://ace.fsu.edu/tutoring> or contact [tutor@fsu.edu](mailto:tutor@fsu.edu). High-quality tutoring is available by appointment and on a walk-in basis. These services are offered by tutors trained to encourage the highest level of individual academic success while upholding personal academic integrity.
- **Syllabus Change Policy:** Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.