

## MAT516 Probability and Statistics for Teachers FALL 2022

### Course Description (from bulletin)

A priori and empirical probabilities; conditional probability; mean and standard deviation; random variables; financial distributions; continuous distributions; sampling; estimation; decision making. Mathematical topics integrate the study of the historical development of statistics and probability, including contributions from diverse cultures.

### Textbook

*Fundamentals of Probability, with Stochastic Processes* (3rd edition) by S. Ghahramani.

### Instructors

Dr. Hongming Nie (hongming.nie@stonybrook.com) <https://sites.google.com/view/hmnie/home>

### Lectures time

Lectures are on Monday, Wednesday 4:25pm- 5:45pm in the classroom P112.

### Course schedule

This is tentative and can be adjusted as the semester progresses.

Week	Dates	Sections covered
1	08/22, 08/24	1.1-1.4
2	08/29, 08/31	1.5-1.7
3	Labor Day, 09/07	2.1-2.4
4	09/12, 09/14	3.1-3.3
5	09/19, 09/21	3.4-3.5
6	09/26, 09/28	4.1-4.3
7	10/03, 10/05	4.4-4.6
8	Fall Break, 10/12	review
9	10/17, 10/19	5.1-5.3
10	10/31, 11/02	6.1-6.3
11	11/07, 11/09	7.1-7.3
12	11/14, 11/16	8.1-8.3
13	11/21, Thanksgiving	9.1
14	11/28, 11/30	10.1-10.3
15	12/05	presentation

### Exams

Midterm exam: take-home, week 6 Monday – week 7 Wednesday.

Final exam: in-class presentation, 10 minutes per student.

### Grading

Class participation, 20% of the final grade.

Weekly homework assignments, due Wednesday in class, 40% of the final grade.

One take-home midterm exam, 20% of the total grade.

One final exam, 20% of the total grade.

The final grade will be determined by a weighted average of the above graded components.

### Office hours

Tuesday 2:00pm-3:00pm

Thursday 2:00pm-3:00pm

### **Disability Support Services (DSS) Statement**

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact Student Accessibility Support Center, ECC (Educational Communications Center) Building, Room 128, (631)632-6748. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the website at <http://www.stonybrook.edu/ehs/fire/disabilities>.

**Academic Integrity Statement** Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another persons work as your own is always wrong. Faculty are required to report any suspected instance of academic dishonesty to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at <http://www.stonybrook.edu/uaa/academicjudiciary/>

### **Critical Incident Management**

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, and/or inhibits students ability to learn. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.

### **Syllabus revision**

Over the course of the semester, events may occur that require changes to the policies stated in this document, and especially the weekly plan of lectures. Such changes will be announced in class, and a revision to this syllabus will be posted.