

STATISTICS 6540

Room: Scott Lab E103

Autumn 2015

MWF 10:20AM-11:15AM

Applied Stochastic Processes

- Lecturer:** Prof. Mario Peruggia - 205A Cockins Hall, 292-0963
e-mail: peruggia@stat.osu.edu
- T.A.:** Ms. Jiae Kim - 238 Cockins Hall, 247-4100
e-mail: kim.3887@osu.edu
- Course Web Site:** Important announcements and course materials will be posted on the Carmen course web site at <https://carmen.osu.edu/>
- Text:** Recommended: Taylor, Howard M. and Karlin, Samuel, (1998). *An introduction to stochastic modeling, Third Edition*, Academic Press: New York. ISBN-13: 978-0126848878.
(Alternative: Pinsky, Mark A. and Karlin, Samuel, (2011). *An Introduction to Stochastic Modeling, Fourth Edition*, Academic Press: New York. ISBN-13: 978-0123814166.)
- References:** An extensive list of suggested further readings is given on page 601 of the textbook.
- Office Hours:** Peruggia: W 3:00-4:00, F 11:30-12:30, and by appointment
Kim: by appointment
- Lecture Schedule: (Tentative)**
- Introduction, Conditioning (Ch. 1, 2): 4 hours
 - Markov Chains (Ch. 3, 4): 12 hours
 - Poisson Processes (Ch. 5): 6 hours
 - Branching Processes (Ch. 3): 4 hours
 - Continuous Time Markov Chains (Ch. 6): 8 hours
 - Brownian Motion (Ch. 8): 4 hours
- Homework:** Problem sets will be regularly assigned and graded.
- Midterm Exam I:** Midterm Exam I will be on Monday, September 28, in lecture.
- Midterm Exam II:** Midterm Exam II will be on Monday, November 2, in lecture.
- Final Exam:** The final examination will be on Tuesday, December 15, 10:00 a.m. – 11:45 a.m., in the lecture classroom.
- Grades:** The final numerical course grade will be determined according to the following scheme:
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| Homework | 10% |
| Midterm Exam I | 25% |
| Midterm Exam II | 25% |
| Final Exam | 40% |

Rules and Policies

Academic Misconduct: Please help us to maintain an academic environment of mutual respect, fair treatment, and personal growth. You are expected to produce original and independent work for quizzes and exams. Although students are often encouraged to work together on homework assignments, each student is to submit her/his written work in her/his own words. Academic misconduct will not be tolerated and will be dealt with procedurally in accordance with University Rule 3335-31-02. Please refer to <http://oaa.osu.edu/coamfaqs.html> for additional information on academic misconduct.

Addressing Issues of Differing Abilities: Any students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. Students with documented disabilities must also contact the Office of Disability Services (ODS) in 150 Pomerene Hall (phone: 292-3307) to coordinate reasonable accommodations for the course. ODS forms must be given to the instructor as early in the quarter as possible to be filled out and returned to you.

Cell phones: Cell phones must be either turned off or put on vibrate during class, as cell phones ringing during class disrupt the learning process.

Recording equipment: The use of any type of recording equipment in the classroom is strictly prohibited. Exceptions will be made for students who need to have access to recordings of the lectures because of documented disabilities. Documentation must be obtained through the Office of Disability Services.

E-mail Correspondence: In order to protect your privacy, all course related E-mail correspondence must be done through a valid OSU name.number account. If you have not activated this email account, you can activate it at <https://acctmgt.service.ohio-state.edu/cgi-bin/KRB1EntryAdd>