
Instructor:  Joe Mitchell, Math Tower 1-109, 632-8366, jsbm@ams.sunysb.edu Office hours (tentative): Tue (11:30-1:00), Wed (9:00-9:45, 1:00-1:45), or by appointment, or whenever you drop by and I am free (don’t be shy!)

Course Web Site:  http://www.ams.sunysb.edu/~jsbm/courses/342/ams342.html

Teaching Assistant:  Tatiana Polishchuk (tessa3d@yahoo.com); office hours: Tuesday, 3:30-5:30, in Harriman 014-2.

Lectures:  Monday, Wednesday, 3:50–5:10, in Melville Library N4006

Pre/Corequisites:  AMS 210 or MATH 221 or 231 or 241; also AMS 311 (or AMS 310). This course does NOT require AMS 341 (Operations Research I) as a prerequisite; they are fairly independent courses. You do need a strong grasp of probability for the course. The first 3 lectures will be devoted to a quick review of probability theory.


Course Notes:  I will be posting some course notes on the course web site; you should check it often!

Homeworks:  There will be 11 equally-weighted homework sets, due in class on Wednesdays: 1/31, 2/7, 2/14, 2/21, 2/28, 3/21, 3/28, 4/11, 4/18, 4/25, 5/2. The lowest score will be dropped before computing your homework average. Homworks will be due at the beginning of class on the due date. Warning: Do not wait until the night before a homework is due before you begin; problems will require thought and effort.

Homework Policy:  No late homework will be accepted. You may discuss homework problems with other students currently taking the course, with the TA, and with the instructor. But the work that you turn in should always be your own write-up, and you should show that you personally understand everything that you write. Please make certain that your writing is neat and clear, and that you have expressed your reasoning, not just the final answer. Please staple!

Exams:  There will be one in-class midterm (tentatively, March 7), and a cumulative final exam (Monday, May 14, 5:00–7:30pm (Period 4))

Grades:  Your total average score will be the maximum of the following two weighted averages: $0.25h + 0.25m + 0.5f$, $0.2h + 0.1m + 0.7f$, where $h$ denotes homework average (after dropping lowest score), $m$ denotes the score on the midterm, and $f$ denotes the score on the final exam. ($h, m, f \in [0, 100]$)

I will use your total average score to assign a letter grade; there is no pre-established scale or curve. (If there is a huge disparity among $h, m, f$, I may, at my discretion, curve the numbers before computing the maximum in the formulas above.)

Course Outline:  The following topics will be covered, with some variation depending on the availability of time:

- Review of probability — definitions and basic concepts
- Conditional probability
- Markov chains
- Poisson processes
- Continuous-time Markov chains
- Renewal processes
- Queueing models

Cheating Policy:  This is very clear and very simple: Cheating, to any degree, will result in an automatic failure of the course, prosecution to the fullest extent of the law (e.g., dismissal), and a letter placed on permanent file with the University. There are no excuses for cheating; if you have extenuating circumstances, see me *before* you even contemplate cheating.

Disability Policy:  If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, 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 following web site: http://studentaffairs.stonybrook.edu/disabilityservices/.