

# Syllabus: IE 536

## Course

Stochastic Models in Operations Research I  
Time: Tuesday and Thursday 10:30-11:45  
Place: GRIS 166

## Instructor

Prof. Mario Ventresca  
email: mventresca@purdue.edu  
office: GRIS 374  
office hours: Wednesday 1:30pm-3:00pm, or by appointment  
\* Use "IE536 Question" as the subject line for all emails.

## Course Objectives

An introduction to techniques for modeling random processes used in operations research. Markov chains, continuous time Markov processes, Markovian queues, reliability and inventory models.

## Prerequisites

Course prerequisites are GR-CS 156 and IE 335 or IE 501. A strong working knowledge of basic linear algebra (e.g., MATH 265) and calculus (e.g. MATH 261) is highly recommended.

## Textbook (required)

S. Ross, *Introduction to Probability Models*, Academic Press, 2010, 10th Edition.

## Announcements

All course announcements will be made through Blackboard. Any handouts will also be posted on Blackboard.

## Course Grading

Each student's course grade will be based on the following calculation:

Test 1:	February 18, 2014	25%
Test 2:	March 27, 2014	25%
Exam :	TBA	50%
Total :		<hr/> 100%

## No Homework?!?!?

There will not be any assigned/graded homework. However, it will be extremely beneficial for each student to attempt as many questions from the back of each relevant chapter as possible since all tests and exams will be composed 100% from questions in the textbook. You are highly encouraged to work in groups.

## Tests and Exams

As explained above, tests and exams will make up 100% of your course mark. To encourage you to work in groups and gain sufficient experience with the covered topics, all test and exam questions will come exactly from the textbook. Tests and will be held during lecture time and will be closed book. The exam date will be determined later, but will also be closed book.

## Grades

Your course letter grade will be determined according to the following table, where  $x\%$  is your total grade percentage.

A	if $90 \leq x \leq 100$
B	if $80 \leq x < 90$
C	if $70 \leq x < 80$
D	if $60 \leq x < 70$
F	if $0 \leq x < 60$

Within each interval (excluding F), a mark of “+” will be designated for a grade in the upper third, and a mark of “-” will result in a mark in the lower third. For instance, a mark of 87, will yield a B+, and a mark of 83 will yield an B-.

**Makeup tests/exams will only be granted with documented proof of illness or family emergency.**

## Bonus Marks

You can obtain up to a 5% course bonus by preparing and presenting an  $\approx 30$ min (include 5-6 minutes for questions) seminar to the class on a topic chosen by the instructor. If interested, you must notify the instructor of your intent and your presentation will be held within the following **2-3 weeks**, at instructor discretion. Your mark will be determined by the instructor and will not be negotiable. Failing to conduct your seminar will result in a 5% deduction from your final course grade.

## Collaboration and Academic Honesty

Collaboration is highly encouraged in this course. However, academic misconduct on tests or exams will not be tolerated and will result in a mark of F for course, **for all students involved**. Within this context academic misconduct includes actions such as looking at another student’s test/exam, bringing notes into an exam, asking/paying another student to write a test or exam for you, turning in altered tests for a regrade, etc. any act of academic dishonesty may be reported to the Dean of Students and may ultimately lead to the end of your career at Purdue.

## **Regrading**

You may ask for a test or exam regrade within 10 days of it being handed out to the class (whether or not you received your test that day). You will need to submit a separate sheet of paper explaining the question(s) of concern and where you feel there is a discrepancy in marks, but note that **your entire exam may be regraded**.

## **Classroom Conduct**

You are expected to arrive to class on-time, turn off all electronic devices (laptops, cell phones, etc.), refrain from distracting other students (e.g., sleeping, side conversations, etc.). Persistent poor classroom conduct will result in grade deductions.

## **Disclaimer**

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to change, as is the course schedule. Any such changes will be posted on Blackboard.