# Syllabus

**TM605WS – Probability for Telecommunications Managers**  
**Spring 2012 Semester**  
**Prof. Tom Brantle, Ph.D.**

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**Course Description:** This course provides a background in probability and stochastic processes necessary for telecommunications and technology management. Topics include: the language and axioms of probability; combinatorial methods; conditional probability and independence; discrete random variables; continuous random variables; the Poisson distribution and the Poisson process; joint probability distributions; variance, covariance, correlation, and expectation; the Normal distribution, central limit theorem, and the law of large numbers; and selected applications.

**Textbook:** *Probability and Stochastic Processes*, Frederick Solomon, Prentice-Hall, 1987  


**Inexpensive Math References (Optional):**  

**Course Notes and Assessments/Assignments:** Available and posted on Moodle.

**Evaluation:**  
- Chapter Quizzes 10%  
- Chapter Homework 20%  
- Midterm Exam 30%  
- Final Exam 40%

**Grading:**  
- $95 \leq A \leq 100$  
- $90 \leq A- < 95$
- $87 \leq B+ < 90$
- $83 \leq B < 87$
- $80 \leq B- < 83$
- Etc.

**General Comments:** All work is to be independent, although you can reference your notes and textbooks; you should not work with other students on the quizzes, midterm exam and the final exam; however class discussion is fully encouraged on the chapter homework problems. All late submissions (assignments) will receive a 10% grade reduction per day, no credit for submissions past one week deadline, no credit for submissions past one week deadline, **without prior instructor permission**.

**Ethical Conduct:** The following statement is printed in the Stevens Graduate Catalog and applies to all students taking Stevens courses, on and off campus.
"Cheating during in-class tests or take-home examinations or homework is, of course, illegal and immoral. A Graduate Academic Evaluation Board exists to investigate academic improprieties, conduct hearings, and determine any necessary actions. The term ‘academic impropriety’ is meant to include, but is not limited to, cheating on homework, during in-class or take home examinations and plagiarism."

Consequences of academic impropriety are severe, ranging from receiving an “F” in a course, to a warning from the Dean of the Graduate School, which becomes a part of the permanent student record, to expulsion.

**Reference:** The Graduate School Catalog, Stevens Institute of Technology.
Consistent with the above statements, all homework exercises, tests and exams that are designated as individual assignments MUST contain the following signed statement before they can be accepted for grading.

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*I pledge on my honor that I have not given or received any unauthorized assistance on this assignment/examination. I further pledge that I have not copied any material from a book, article, the Internet or any other source except where I have expressly cited the source.*

Signature ___________________________ Date: _____________

Please note that assignments in this class may be submitted to [www.turnitin.com](http://www.turnitin.com), a web-based anti-plagiarism system, for an evaluation of their originality.

**Course/Teacher Evaluation:** Continuous improvement can only occur with feedback based on comprehensive and appropriate surveys. Your feedback is an important contributor to decisions to modify course content/pedagogy which is why we strive for 100% class participation in the survey.

All course teacher evaluations are conducted on-line. You will receive an e-mail one week prior to the end of the course informing you that the survey site ([https://www.stevens.edu/assess](https://www.stevens.edu/assess)) is open along with instructions for accessing the site.
Login using your Campus Pipeline (email) 'CPIPE' username and password. This is the same username and password you use for WebCT. Simply click on the course that you wish to evaluate and enter the information. All responses are strictly anonymous. We especially encourage you to clarify your position on any of the questions and give explicit feedbacks on your overall evaluations in the section at the end of the formal survey which allows for written comments. We ask that you submit your survey prior to the last class.
## Schedule*

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<td>Chapter 2: Combinatorics</td>
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<td>Week 12</td>
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<td>Chapter 10: The Normal Distribution, Central Limit Theorem, and the Law of Large Numbers – Part I</td>
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<td>Week 13</td>
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<td>Chapter 10: The Normal Distribution, Central Limit Theorem, and the Law of Large Numbers – Part II</td>
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<td>Week 14</td>
<td>April 23</td>
<td>Final Exam (Chapters 6, 8 – 10)</td>
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* Subject to revision as necessary and appropriate.