# Syllabus

## TM500WS – Calculus for Telecommunications Management

**Fall 2011**  
**Prof. Tom Brantle**

### Contact Information:

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### Course Description:

The goal of this course is to provide students with a background in applied calculus (differential, integral and multivariate calculus) necessary for the telecommunications and technology management curriculum. Topics covered include: a pre-calculus review, functions and linear models, nonlinear functions and models, introduction to the derivative, techniques of differentiation with applications, further applications of the derivative, the integral, further integration techniques and applications of the integral, functions of several variables, and trigonometric models.

### Textbook:

ISBN-10: 0538498900  

### Optional:

Texas Instruments Graphing Calculator

### Inexpensive Math References (Optional):

**Formulas and Tables:** *Schaum's Outline of Mathematical Handbook of Formulas and Tables, Third Edition*, Murray R. Spiegel and John Liu, Schaum’s Outline Series, 2008  
ISBN-10: 0071548556  

**Calculus:** *Schaum's Outline of Calculus, Fifth Edition*, Frank Ayers, Jr. and Elliott Mendelson, Schaum’s Outline Series, 2008  
ISBN-10: 0071508619  

### Course Notes and Assessments/Assignments:

Available and posted on Moodle.

### Evaluation:

- Chapter Quizzes 20%  
- Chapter Homework 30%  
- Midterm Exam 25%  
- Final Exam 25%

### Grading:

- $95 \leq A \leq 100$
Some Specifics about the Course, and a few Words of Advice: In the text, there are Answers to Selected Exercises. In addition the somewhat more complete solutions to these specific chapter problems and exercises will also be posted to our Moodle site. Do as many of these problems as you feel you need to learn and understand the course material; however, like other quantitative methods courses, this one does not make for a good “spectator sport.” If you check the MIT Open Courseware website for the comparable course at the Sloan School, you will note that the syllabus informs students that they should anticipate spending about 9 hours a week working problems. In light of that, I will let you decide what is best for you. My recommendation is practice, practice, practice...

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 and exams; 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, 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.

________________________
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, 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) 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 eLearn. 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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*Subject to revision as necessary and appropriate.*