

**Boston University, College of Engineering**  
**ENG ME 566: Advanced Engineering Mathematics**

**Course Information: Fall 2014**

**Meeting Details:**

Tuesday and Thursday 2:00 - 4:00 pm  
SOC B59, 96-100 Cummington Street

**Instructor:**

Professor Perkins  
Office: 15 St. Mary's Street, Room 146  
Phone: (617) 353-4991  
Email: perkins@bu.edu

**Course Website:**

Blackboard Learn

**Office Hours:**

Tuesday/Thursday 12:30-1:30 pm (email me to confirm) and by appointment

**Textbook:**

Erwin Kreyszig, **Advanced Engineering Mathematics** (10<sup>th</sup> ed.), Wiley, 2011

**Problem Sets:**

Problem sets will be 32% of course grade. Assigned approximately weekly.

**Exams:**

Midterm worth 25% of course grade. Final worth 33% of course grade. Midterm date to be determined. Final date (tentative): Tuesday, December 16, 2014, 3:00 pm - 5:00 pm

**Attendance and Participation:**

Attendance/Participation in class will be 10% of course grade.

**Reference Texts:**

1. "Advanced Engineering Mathematics," Lopez, Addison Wesley.
2. "Advanced Engineering Mathematics," Greenberg, Prentice Hall.
3. "Advanced Engineering Mathematics," Zill and Cullen, Jones and Bertlett.

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**Course Topics: Fall 2014**

- Review of Calculus Methods
- Transform Methods (Laplace, Fourier,  $z$ )
- Matrices and Linear Systems
- Vector Algebra and Calculus
- Difference and Differential Equations
- Introduction to Complex Analysis
- Numerical Analysis
- Mathematical Techniques in Optimization Theory