

Instructor: Prof. D.W. Schwendeman
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Office Hours: Wednesdays 1:30–2:30, Fridays 11:30–12:30 (or by appointment)

Web Site: <http://eaton.math.rpi.edu/Faculty/Schwendeman/home.html>

Text: Elementary Applied Partial Differential Equations (3rd ed.),
R. Haberman, Prentice-Hall, 1998.

Tentative Outline

1. Introduction, Heat Equation	1.1 – 1.5
2. Separation of Variables	2.1 – 2.5
3. Fourier Series	3.1 – 3.6
4. Wave Equation, Vibrating String and Membranes	4.1 – 4.4
5. Sturm-Liouville Eigenvalue Problems	5.1 – 5.10
6. PDE.s with at Least 3 Independent Variables	7.1 – 7.10
7. Nonhomogeneous Problems	8.1 – 8.6
8. Green's Functions	9.1 – 9.6
9. Fourier Transforms	10.1 – 10.6
10. Method of Characteristics	12.1 – 12.6

Text Reading

Grading Policy

Homework (assigned regularly, collected and graded)	20% of course grade
2 In-Class Exams	45% of course grade
Comprehensive Final Exam	35% of course grade