

# MATHEMATICS 146C

## ORDINARY AND PARTIAL DIFFERENTIAL EQUATIONS

**Text:** *Elementary Differential Equations and Boundary Value Problems, Seventh Edition*, by W. E. Boyce and R. C. DiPrima

**Instructor:** Zhuang-dan Daniel Guan

**Class:** MWF: 4.10—5.00pm. Spr. 2339

**First class:** Mar. 28 Monday.

**Office Hours:** Th 1.00—4.00pm in Surge 237 or by appointment.

This is the third in a three quarter sequence courses covering the theory of linear differential equations, boundary value problems for ordinary and partial differential equations. We shall cover an introduction to second order partial differential equations, separation of variable methods, Fourier series, boundary value problems and Sturm-Liouville theory.

### Outline for Mathematics 146C

We plan to cover the following sections and expect your eager and sincere participations:

TOPICS	SUGGESTED NO. OF 50 MIN. CLASSES
Partial differential equations, separation of variables ..... 12 (§§ 10.1—10.8 and Appendices A and B)	
Boundary value problems .....9 (§§ 11.1—11.6)	
Series Solutions ..... 6 (§§ 5.1—5.5 or 5.4—5.8)	

**Tests:** Midterm in seventh week; Final: June 9, 7—10pm Thursday.

**Homework:** Homework assigned during the each Friday class is due to following Friday. Homework is important, it counts for 10% of the total credit.

Discussion quizzes 15%. There will be three quizzes in the third, fifth and ninth weeks.

Midterm 30%, and Final 45%.