

**Course Information**  
**Math 266A: Applied ODEs**  
Fall 2006

## 1 Lecture and Discussion Section

- Instructor: Prof. Russel Caflisch
- Office: 7619A Math Sciences Bldg
- Phone: 310-206-0200, Email: caflisch@math.ucla.edu
- Web site: <http://www.math.ucla.edu/~caflisch/266a.1.06f/>
- Office hours: MF 1-2, W 2-3, or by appointment
- Course Lectures: MWF 10-10:50, Math Science Bldg 5127
- TA: Ben Cook
- TA office and hours:
- Discussion Section: Tu 10-10:50, Math Science Bldg 5127
- Prerequisites: advanced calculus, linear algebra
- Text: Coddington & Levinson. *Theory of Ordinary Differential Equations*

## 2 Course Policies- Tentative

- Homework handout every Friday, due the following Friday
- Midterm: Wednesday, November 1 (in class, open book, open notes)
- Final exam: Take home (tentative)
- **No late homework, no make up exams**
- Grades: midterm (30%), final exam (40%), homework (30%)

### **3 Holidays, Cancelled Lectures and Makeup Lectures**

- Holidays: Nov 10, 24
- Cancelled Lectures: Oct 23, 25; Nov 3, 13, 15; Dec 1
- Makeup Lectures: Oct 5, 12, 19; Nov 9, 28, Dec 7
- First class: Sept 29; Last class: Dec 8

### **4 Topics**

- Initial value problems: well-posedness, linear systems
- Phase plane methods: stationary points, stability, global properties
- Dynamical systems: bifurcation theory, chaos
- Boundary value problems: Green's function, eigenfunctions, Sturm-Liouville theory