Linear Analysis: Math 309 D - Spring 2017

Instructor:	Avi W. Levy	**Email:**	avius@uw.edu
Office:	Padelford C-404	**Web page:**	www.math.washington.edu/∼avius/309.html
Location:	CDH 717, 12:30-1:20		

Office Hours: TBA

Text: *Elementary Differential Equations and Boundary Value Problems*, by W. E. Boyce and R. C. DiPrima, 10th Edition, or Linear Analysis (University of Washington custom edition for Math 309).

Prerequisites: Math 126, Math 307, Math 308

Course Objectives: Math 309 is the culmination of the linear analysis sequence (Math 307, 308, and 309). It combines analytical techniques from Math 307 (series expansions, complex numbers and exponentials, differential equations) with matrix techniques from Math 308. These are applied to the solution and qualitative study of linear systems of ordinary differential equations (ODEs) and to the analysis of classical partial differential equations (PDEs), including the heat equation, the wave equation, and the Laplace equation. The course covers most of Chapters 7 and 10 of the textbook, as well as part of Chapter 9.

Grading: The weight for each part of the course is given below.

Category	Weight
Homework (lowest score dropped)	15%
Quizzes (2 quizzes)	15%
Midterm (**Friday, April 28**)	30%
Final Exam (**Thursday, June 8**)	40%
Total	100%

Lecture: Lecture is on Monday, Wednesday, and Friday. You will be held responsible for all information that is discussed during lecture.

Homework: There will be 7 homework assignments. A selection of problems will be graded from each assignment. The homework will be posted on the course website one week prior to the due date. Homework must be handwritten and turned in at the beginning of class on the due date. If you are unable to attend lecture on a day when homework is due, you will need to turn it into me in advance (put it in my mailbox in PDL C-120). ***Late homework will not be accepted.*** The lowest homework grade will be dropped.

Exam policy: One handwritten (two-sided) 8.5×11 inch sheet of notes is allowed on the midterm and final exam, but not on the quizzes. Graphing calculators will not be permitted on any quiz or exam. You may use a scientific calculator.

Quizzes: There will be two quizzes (see calendar). They will be in class and will be 20-30 minutes long.

Midterm: There will be one midterm, in class on April 28, covering material before Chapter 10.

Final: The final exam is on Thursday, June 8. The final exam is cumulative.

Resources:

• The course webpage is located at `http://www.math.washington.edu/~avius/309.html`. The homework and calendar will be posted there, along with course announcements and review material as the quarter progresses.

• The Center for Learning and Undergraduate Enrichment (CLUE) holds drop-in tutoring sessions every weekday evening in Mary Gates Hall Commons, including for 309. See `http://depts.washington.edu/clue/` for more details.

• The University of Washington is committed to providing access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To

request disability accommodation contact the Disability Services Office at least ten days in advance at: 206-543-6450/V, 206-543-6452/TTY, 206-685-7264(FAX), or dso@u.washington.edu, and communicate with me directly as well.

• The Student Counseling Center provides an academic skills workshop on a variety of topics including stress management test anxiety and time management to help you succeed at the University of Washington. More information is availabe at `https://www.washington.edu/counseling/` .