

**TEXT:** *Approximation Theory and Methods*, M.J.D. Powell, Cambridge University Press, Cambridge, 1981.  
ISBN: 0 532 29514 9

The times listed below are approximate, and may be adjusted as the semester progresses. The two sources for material are the class textbook and my own class notes. You have a standing reading assignment to read the text sections as they are covered in class. Homework and computer assignments will be given in class as the relevant material is covered.

WEEK	DATES	SECTIONS	TOPICS
1	Aug 24-28	Class Notes Class Notes	Linear Algebra Background Analysis Background
2	Aug 31-Sep 4	Class Notes Chapter 1	Matlab tutorial Basic ideas of approximation

**Friday, September 4, is the last day to withdraw from the course and not have it appear on your transcript.**

3	Sep 7-11	Chapter 2 Chapter 3	Uniqueness of approximation Approximation operators
4	Sep 14-18	Chapter 4 Class Notes	Polynomial interpolation Uncertainty in interpolation
5	Sep 21-25	Chapter 5 Chapter 6	Divided differences Uniform convergence
6	Sep 28 - Oct 2	Chapter 7 Chapter 8	Minimax approximation Exchange algorithm
7	Oct 5-9	Chapter 10 Notes	Rational approximation Rational approximation
8	Oct 12-16	Review Midterm	

**Friday, October 16, is the last day to change your grade option to or from "Pass/No Pass".**

WEEK	DATES	SECTIONS	TOPICS
9	Oct 21-23	Fall Break Chapter 11	Least squares approximation
10	Oct 26-30	Chapter 12	Orthogonal polynomials
11	Nov 2-6	Chapter 13	Periodic functions
12	Nov 9-13	Notes Chapter 18	Sinc approximation Piecewise polynomials
<b>Friday, November 13, is the last day to withdraw from the course and receive a grade of W.</b>			
13	Nov 16-20	Chapter 19 Chapter 20	B-splines Convergence of splines
14	Nov 23-27	Notes Thanksgiving Break	Splines and applications
15	Nov 30-Dec 4	Notes Notes	Algorithms Algorithms
16	Dec 7-11	Notes Review	Algorithms

**Final Exam:** The final exam is a comprehensive exam to be given on Wednesday, May 7, 1:00 - 3:00 pm in AvH 12.

**Department Grading Appeals Policy:** The Department of Mathematics does not tolerate discrimination or harassment on the basis of race, gender, religion or sexual orientation. If you believe you have been subject to such discrimination or harassment please contact the department. If, for this or any other reason, you believe that your grade was assigned incorrectly or capriciously, appeals may be made to (in order) the instructor, the department chair, the departmental grading appeals committee, the college grading appeals committee and the university grading appeals committee.