

## Mathematics 690, Fall Semester 2009

August 5, 2009

Instructor: Andrew Sommese  
291 Hurley  
Phone: 631-6498  
email: sommese@nd.edu  
Class Time/Place: Tuesday & Thursday 9:30 to 10:45 in Hayes Healy 229  
Class Website: [www.nd.edu/~sommese/math09F690](http://www.nd.edu/~sommese/math09F690)

*Office Hours:* Open Door: I am in my office almost all of every weekday, and encourage you to visit any time. If you just come to my office you will probably find me, but if you set up a time with me before hand, then you can be sure that I will be there.

*Examinations, homework, and grades:* There will be two examinations worth 100 points and a final examination worth 150 points. One or both of the two nonfinal examinations will be take home. The final exam will be a two hour exam covering all the material of the course with emphasis on the material covered after the second exam.

Homework is an integral part of the course. Typically I will give assignments on Thursday and collect them the following Thursday. I strongly encourage you to see me if there is anything connected with the course or the mathematics in the course that you are unclear on or would like to know more about.

Both examinations and the homework are conducted under the honor code. While cooperation in doing homework is permitted (and in fact encouraged), copying is not.

Homework will be worth 100 points. The total number of possible points for the semester is 450. The numerical break points for letter grades (A, A-, B+,...) will be based only on the test scores and the homework.

We will follow the books

E. Isaacson and H.B. Keller, *Analysis of Numerical Methods*, Dover, 1994;  
and  
L.N. Trefethen and D. Bau, *Numerical Linear Algebra*, Society of Industrial and Applied Mathematics, 1997.

which are available at the Notre Dame Bookstore.

Implementation and comparison of algorithms solving the same problem are of basic importance in numerical analysis (and a lot of fun also). We will use Maple for this purpose.

Exam 1: Thursday, October 1.

Exam 2: Tuesday, November 24.

Final: time and place will be announced.

*The most recent version of this handout plus other useful materials can be found at [www.nd.edu/~sommese/math09F690](http://www.nd.edu/~sommese/math09F690).*