**Course Information**

Instructor: Dr. Karl Frinkle  
Office: MTH 112  
Office Hours: MW 9:00 – 9:50, 11:00 – 11:50, 13:00 – 13:50, F 9:00 – 9:50, 11:00 – 11:50, TR by appointment only  
Office Phone: (580) 745 – 2028  
E-mail: kfrinkle@se.edu  
Website: http://homepages.se.edu/kfrinkle

**Text**


**Software**

*Mathematica*, by Wolfram Research

**Course Overview**

This course will serve as an introduction to numerical computation and analysis. We will attempt to cover the following chapters:
- Chapter 1 – Mathematical Preliminaries
- Chapter 3 – Solution of Nonlinear Equations
- Chapter 5 – Selected Topics in Numerical Linear Algebra
- Chapter 6 – Approximating Functions
- Chapter 7 – Numerical Differentiation
- Chapter 8 – Numerical Solution of Ordinary Differential Equations
- Chapter 9 – Numerical Solution of Partial Differential Equations

The computer algebra system Mathematica will be used to write programs relating to the topics covered in the class.

Homework and Mathematica programming assignments will be assigned on a weekly basis. Since this is an arranged course, students will be required to meet with the instructor twice a week, and are required to be prepared for these meetings by reading the appropriate material, and working on assigned homework problems.

**Grades**

Grades will be based on homework assignments and Mathematica programming assignments and a final exam. The final exam will be a presentation to the Math department during finals week based on the material learned over the semester. Grading will be based on the following:
- Homework – 35 %
- Mathematica Programming – 35 %
- Final Presentation – 30 %

Grading scale is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
</tr>
<tr>
<td>C</td>
<td>70-79</td>
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<tr>
<td>D</td>
<td>60-69</td>
</tr>
<tr>
<td>F</td>
<td>0-59</td>
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</tbody>
</table>
Policies

I reserve the right to change any policies as I see fit to ensure that you are indeed receiving the best possible education that I can give you in the subject matter at hand. If I feel a certain aspect of the course does not appear to be effective in its method, I will attempt to change it (for the better I hope). All changes will be made in writing.

Important Dates for Spring 2015

- 2015.01.12 - Classes begin
- 2015.01.16 - Last day to enroll in or add classes
- 2015.01.16 - Last day to drop a class with no grade record
- 2015.01.16 - Last day to drop a class with refund/no charges
- 2015.01.19 - Martin Luther King Jr Day (no class)
- 2015.03.04 - Assessment Day
- 2015.03.06 - Last day to drop a class with automatic ‘W’
- 2015.03.16–20 - Spring Break
- 2015.04.01 - Last day to complete final application for graduation
- 2015.04.03 - Easter Holiday
- 2015.04.10 - Last day to drop a class
- 2015.05.08 - Classes end

Special Accommodations

Any student needing special accommodations due to a disability should contact the Coordinator for Disability Services, GDJ Student Union, Suite 328 or call (580) 745–2392 (TDD# 745–2704). It is the responsibility of each student to make an official request for accommodations to the Coordinator.

At-Risk Students

Any student experiencing mental or emotional issues who desires free, confidential, clinical counseling is encouraged to contact the SE Counseling Center at (580) 745–2988 to schedule an appointment during normal working hours Monday – Friday, 8:00 AM to 5:00 PM. For after hours mental health emergencies, please call SE Campus Police at (580) 745–2911 or the Mental Health Crisis Hotline at 1–(800)–522–1090.