In this course, we study approximate solutions to mathematical problems that cannot be solved or are difficult to solve analytically. We will look at algorithms for solving basic problems and analyze the errors that are introduced. We will also look at the structure of computers and the implications of using them in numerical calculations.

There are three main objectives of this course for students as outlined in the text.

1. Students should obtain an intuitive and working understanding of some numerical methods for the basic problems of numerical analysis.
2. Students should gain some appreciation of the concept of error and of the need to analyze and predict it.
3. Students should develop some experience in the implementation of numerical methods by using a computer. This includes an appreciation of computer arithmetic and its effects.

**Course Activities/Assignments:**

**Homework:** Homework will be collected regularly. Assignment will be posted on the course website and announced in class. **No late homework** will be accepted. Computer programming must be done in MATLAB.

**Course Schedule:**

Complete course schedule will be posted on the course website.

**Assessment of Course Objectives:**

Grade will be based on homework, two midterm exams, and a final exam.

**Grading Policy:**

Homework: 20%, Midterm exams: 25% each, Final exam: 30%

**Make-up Policy:**

**No make-up exams** will be given.

**Attendance Policy:**

It is student’s responsibility to attend every class. Students are expected to arrive for class on time and to remain for the class entire period.

Civility Statement: Please do not use cell phones, pagers, IPods, MP3 players, blue tooth devices, etc. during class. Cell phones and pagers should be set to silent or vibrate, and any calls should be taken outside of class. Please do not wear headsets or blue tooth devices during class.

Disability Statement: If a student has or suspects she/he has a disability and needs an accommodation, he/she should contact the Disabled Student Services Office (DSSO) at 747-5148 or at <dss@utep.edu> or go to Room 106 Union East Building. The student is responsible for presenting to the instructor any DSS accommodation letters and instructions.

Military Statement: If you are a military student with the potential of being called to military service and/or training during the semester, please contact me by the end of the first week of class.