ChEn 263
Computer Programming for Chemical Engineers
(Computer Tools)
Spring 2000

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Competencies:
1. Understand fundamental mathematics including calculus; differential equations; linear algebra; nonlinear/simultaneous equation solving
2. Be able to use basic engineering units in both SI and AES systems in solving problems and be able to interconvert between unit systems
3. Use a spreadsheet package to perform engineering calculations which include some of the following: economic analysis; processing and analysis of data; graphical analysis and presentation
4. Solve numerical and symbolic problems with the use of advanced math software
5. Write program structures and understand when programming is most appropriate

Computers:
The computers used in the course will be IBM compatible 486 or Pentium machines using Microsoft Fortran. These machines are located in the following locations:

425 CB (Entrance through 423 CB)
415 CTB
217 CB (U.O. Lab study area)

You must get the combination to 423 CB using the computers next to 423. You will want to save your programs on a floppy disk, so you should purchase at least one floppy disk (a high density 4.5” disk is recommended). You can use the hard disks on the computers for temporary storage, but you should remove whatever files you put on the hard disk when you finish your work each time. You may also use your own computer if you wish as long as it has a FORTRAN compiler.

Homework:
Homework is due the beginning of class on the date indicated. Late homework is worth 50% credit for up to one week late. After one week, no credit will be given for late homework.

Exams:
Exams may consist of a take home portion and an in class portion. Unusual circumstances may cause you to have to reschedule an exam. Please call before the scheduled exam to discuss this option. University policy requires all students to take the final during the regularly scheduled time.

Class Web page:
Tutorials, readings, and other information will be available at: http://www.et.byu.edu/~terryr/
**Solutions:**
A notebook containing complete solutions to all homework problems and exams will be available from the department secretaries. It can be checked out for one hour at a time.

**Grading:**
The final grade will be based on the following percentages:
- Homework and Projects: 30%
- Exams (2): 40%
- Final Exam (June 15 at 9:00 a.m.): 30%
- Total: 100%

**University Mission:**
The following is quoted from the General Catalogue. "The mission of Brigham Young University - founded, supported, and guided by The Church of Jesus Christ of Latter-day Saints - is to assist individuals in their quest for perfection and eternal life. That assistance should provide a period of intensive learning in a stimulating setting where a commitment to excellence is expected and the full realization of human potential is pursued. . . To succeed in this mission the university must provide an environment enlightened by living prophets and sustained by those moral virtues which characterize the life and teachings of the Son of God."

**Honor and Dress and Grooming Codes:**
All of us have been instructed on the Honor and Dress and Grooming Codes of the university. We have all committed to obey and sustain these codes. It will be expected in this class that each of us will honor the commitments that we have made.

The Honor Code suggests that there will be no plagiarizing on written work and no cheating on exams. If a student is caught cheating on an exam, he or she will be given a zero for the exam. If a student is caught cheating on two exams, the student will be referred to the Honor Council and be given an E in the course.

I reserve the right to not give an exam to those persons failing to abide by their commitments to the Dress and Grooming Codes.

**Preventing Sexual Harassment:**
Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education. Title IX covers discrimination in programs, admissions, activities, and student-to-student sexual harassment. BYU's policy against sexual harassment extends not only to employees of the university but to students. If you encounter unlawful sexual harassment or gender based discrimination, please talk to your professor; contact the campus EEO office (378-5895); or contact the Honor Code Office (378-2847).