Department of Mathematical Sciences   Spring 2002
Carnegie Mellon University

21-256 Multivariate Analysis and Approximation   MWF 1:30, PH 100

Instructor: Mikil Foss
              Office: WeH 6102
              Phone: 268-3546
              e-mail: foss@andrew.cmu.edu
              Office Hours: W 3:30-5:30 or by appointment

Texts: *Calculus, Early Transcendentals*, J. STEWERT (4th Edition)

Introduction to Mathematical Programming, R. WALKER

Compound Interest: Supplementary Notes to Introduction to Mathematical Programming, R. WALKER

Course Content: *Compound Interest* handout; Chapters 11, 12 and 14 in *Early Transcendentals*; Chapters 2, 5 and 6 in *Introduction to Mathematical Programming*

Exams: There will be 4 one-hour exams throughout the semester and a final exam. All exams are **closed-book** and **closed-notes**. **No calculators** may be used during the exams. Make-up exams will only be given in the case of a documented medical excuse, a university sanctioned absence (e.g., participation in a varsity sporting event), or an "emergency". The TA's cannot give permission to miss an exam. Make-up exams may be oral. The final exam will be given during the 3-hour exam period scheduled for this course.

Homework: Homework assignments will be given every Wednesday in lecture and collected Thursday the following week in recitation. There will be a total of 14 homework assignments given. Assignments must be submitted on time; late assignments will not be collected.

Recitation: Each student has been assigned a recitation that meets twice a week. These sections will primarily be used to provide an informal setting to discuss material from the lecture, present additional examples, and to collect, return, and discuss the homework assignments. Recitations will occasionally be used to introduce new material.

Grades: A score, between 0 and 100, for the course will be computed for each student using the following scheme:
        10% – average of 12 best homework scores
        60% – average of 3 best one-hour exam scores
        30% – final exam score.
Students with a score of 90 or above are guaranteed to receive an A for the course; students with a score of 80 or above are guaranteed to receive a B; students with 70 or above are guaranteed to receive a C; students with a score of 60 or above are guaranteed to receive a D.

Tentative Lecture Schedule:

Week 1– January 14 through January 18
> Lecture Coverage: Stewart: Sections 11.1 and 11.2;
>> Compound Interest: Sections 10.1 and 10.2

Week 2– January 21 through January 25
> No lecture on January 21;
> Lecture Coverage: Compund Interest: Sections 10.3 and 10.4

Week 3– January 28 through February 1
> Lecture Coverage: Stewart: Sections 11.9, 11.10 and 12.1
>> Walker: Section 2.2

Week 4– February 4 through February 8
> Test 1 will be given in lecture on Friday, February 8, 2002;
> Lecture Coverage: Stewart: Section 12.5
>> Walker: Section 2.3

Week 5– February 11 through February 15
> Lecture Coverage: Walker: Sections 2.4 and 2.5

Week 6– February 8 through February 22
> Lecture Coverage: Walker: Section 2.6 and 2.7
>> Stewart: Section 14.1

Week 7– February 25 through March 1
> Test 2 will be given in lecture on Friday, March 1, 2002;
> Lecture Coverage: Stewart: Sections 14.2 and 14.3

Week 8– March 4 through March 8
> No lecture on March 8;
> Lecture Coverage: Stewart: Sections 14.3 and 14.4

Week 9– March 11 through March 15
> Lecture Coverage: Walker: Sections 5.2
>> Stewart: Section 14.5, 14.6

Week 10– March 18 through March 22
> Lecture Coverage: Walker: Sections 5.3, 5.4
>> Stewart: Section 14.7

Week 11– March 25 through March 29
> Lecture Coverage: Walker: Sections 5.5, 5.6 and 6.1

Week 12– April 1 through April 5
> No lectures this week

Week 13– April 8 through April 12
> Test 3 will be given in lecture on Friday, April 12, 2002;
> Lecture Coverage: Walker: Sections 6.1 and 6.2
>> Stewart: Section 14.8

Week 14– April 15 through April 19
> No lecture on April 19;
> Lecture Coverage: Walker: Sections 6.2 and 6.3

Week 15– April 22 through April 26
> Lecture Coverage: Walker: Sections 6.4 and 6.5

Week 16– April 29 through May 3
> Test 4 will be given in lecture on Friday, May 3, 2002
> Lecture Coverage: Walker: Sections 6.5 and 6.6