University of Arkansas at Monticello
School of Mathematical & Natural Sciences Course Syllabus
Semester: Spring 2012

Instructor & Office: Dr. Farrokh Abedi, Science Center A 9

Time & Room: T H: 9:40−11:00, SC A30

Phone: 870−460−1216

E-mail: abedi@uamont.edu

Office & Office Hours: MW 9:00−11:30, 1:30−3:30

TTH 2:00−3:30, and by appointment

Course Title and Credit Hours: Math 3543, Calculus III**,** 3 credit hours

COURSE OBJECTIVES: The focus of this course is to develop the fundamentals of multivariable calculus and differential equations which include both the ability to perform manipulations and a conceptual understanding of the basic themes. The specific objectives are:

1. To understand the calculus of vector functions.
2. To understand the calculus of functions of more than one variable.
3. To understand the cylindrical and spherical coordinates
4. To understand the limits and continuity of functions of several variables.
5. To understand the partial derivatives, tangent planes and linear approximations and the Chain rule.
6. To understand the directional derivatives and the gradient vector, maximum and minimum values of functions of several variables.
5. To understand double integrals and triple integrals.

COURSE PREREQUISITES: A grade of C or better in Math 3495, Calculus II.

REQUIRED TEXTS: *Calculus Concepts and Contexts* by James Stewart, fourth edition, published by Thompson-Brooks/Cole. A Texas Instruments TI-89 graphing calculator is recommended (TI-89 cannot be used during the quizzes and exams). All students must have access to a graphing calculator. Strongly recommended models are TI−83, TI−83 Plus or the TI−84 Plus. Other calculators of equal capability may be used, but it is the student's responsibility to understand how to use them.

COURSE CONTENT & SCHEDULE OUTLINE: Revision will be announced as needed.

Topic	Text
Functions & Surfaces, Cylindrical & Spherical Coordinates Functions of Several Variables and Limits & Continuity	Chapter 9.6 & 9.7 Chapter 11.1−11.2
Partial Derivatives, Tangent Planes & Linear Approximations and The Chain Rule	Chapter 11.3 − 11.5
Directional Derivatives, The Gradient Vector and Maximum and Minimum	Chapter 11.6 & 11.7
Double Integrals, Iterated Integrals and Double Integrals over General Regions	Chapter 12.1−12.3
May 8 (Tuesday) 1:30−3:30 Comprehensive Final Exam	

GRADING POLICY: In addition to the tests and comprehensive final examinations, there will be homework assignments and group projects that will contribute to your grade.

Homework ----------15 %

Chapter Exams ----------70 %

Final Exams----------15 %

Grades are assigned on the following basis:

A 90-100%, B 80-89%, C 70-79%, D 60-69%., F below 60%

SPECIAL POLICIES:

1. No late homework will be accepted.

2. If a test is missed then the percentage grade on the final examination will be substituted for the test grade.

3. If no tests are missed and the percentage grade on the final examination is greater than the lowest test grade then the final examination percentage grade will be substituted for the lowest test grade.

4. You are expected to attend all class meetings and you are responsible for the material covered in these meetings

EXPECTATIONS OF THE STUDENT: This course can be quite difficult if it is not approached with the right attitude and commitment. Consistent effort is necessary. Seek assistance when you encounter a difficulty -- not later after the troublesome topic has been used to develop other topics and a simple misunderstanding has become a major impediment.
You should commit at least two hours of study time for each hour of lecture.

IMPORTANT DATES:

January 11 (Wednesday)	First day of classes.
January 16 (Monday)	Martin Luther King Holiday
January 18 (Wednesday)	Last day to register or add fall classes
March 19−23 (Monday-Friday):	Spring Break.
February 24 (Friday)	Deadline to file for August and December graduation
April 2(Monday)	Preregistration for Summer and Fall begins
April 4 (Wednesday)	Last day to drop with W
April 13 (Friday):	Preregistration for Summer and Fall ends
April 26 (Thursday)	Last day to withdraw from class
May 1 (Tuesday)	Last day of classes
May 2−8 (Wednesday−Tuesday):	Final exams
May 8 (Tuesday) 1:30−3:30	**Comprehensive Final Exam**
May 11(Friday)	Commencement.

Students with disabilities:

It is the policy of the University of Arkansas at Monticello to accommodate individuals with disabilities pursuant to federal law and the University's commitment to equal educational opportunities. It is the responsibility of the student to inform the instructor of any necessary accommodations at the beginning of the course. Any student requiring accommodations should contact the Office of Special Student Services located in Harris Hall Room 121; phone 870 460-1026; TDD 870 460-1626; Fax 870 460-1926; email: whitingm@uamont.edu.

For assistance on a College of Technology campus contact:

McGehee: Office of Special Student Services representative on campus; phone 870 222-5360; fax 870 222-1105.

Crossett: Office of Special Student Services representative on campus; phone 870 364-6414; fax 870 364-5707.

Student conduct statement:

Students at the University of Arkansas at Monticello are expected to conduct themselves appropriately, keeping in mind that they are subject to the laws of the community and standards of society. The student must not conduct him/herself in a manner that disrupts the academic community or breaches the freedom of other students to progress academically.

Academic dishonesty:

1. Cheating: Students shall not give, receive, offer, or solicit information on examinations, quizzes, etc. This includes but is not limited to the following classes of dishonesty:
    a. Copying from another student's paper;
    b. Use during the examination of prepared materials, notes, or texts other than those specifically permitted by the instructor;
    c. Collaboration with another student during the examination;
    d. Buying, selling, stealing, soliciting, or transmitting an examination or any material purported to be the unreleased contents of coming examinations or the use of any such material;
    e. Substituting for another person during an examination or allowing such substitutions for oneself.

2. Collusion: Collusion is defined as obtaining from another party, without specific approval in advance by the instructor, assistance in the production of work offered for credit to the extent that the work reflects the ideas of the party consulted rather than those of the person whose name in on the work submitted.
3. Duplicity: Duplicity is defined as offering for credit identical or substantially unchanged work in two or more courses, without specific advanced approval of the instructors involved.
4. Plagiarism: Plagiarism is defined as adopting and reproducing as one's own, to appropriate to one's use, and to incorporate in one's own work without acknowledgement the ideas or passages from the writings or works of others.

For any instance of academic dishonesty that is discovered by the instructor, whether the dishonesty is found to be cheating, collusion, duplicity, or plagiarism, the result for the student(s) involved will be A grade of zero for every case of verified cheating. In addition, all occurrences will be reported to the Vice Chancellor for Academic Affairs for other possible actions.

School of Mathematical & Natural Sciences

CALCULUS III, MATH 3543, *HOMEWORK ASSIGNMENTS*

Abedi, Spring 2012

Section	***Page***	***Problems***
9.6	673	1, 4, 14, 24
9.7	682	4, 5, 6, 8, 10, 11−16, 18, 22, 28
10.4	724	4, 6, 10, 14
11.1	746	2, 6, 8, 14, 15
11.2	755	1, 3, 5, 8, 12, 13, 16, 27, 28, 30, 34, 35, 36
11.3	766	2, 4, 5, 6, 8, 10, 11, 12, 15, 18, 20, 22, 39, 40, 45, 49, 51, 56, 68, 90
11.4	778	2, 12, 13, 17, 22, 23, 24
11.5	786	1, 4, 7, 8, 17, 19, 21
11.6	799	3, 4, 5, 7, 8, 12, 13, 18, 27, 39, 41
11.7	809	1, 4, 6, 10, 12, 27, 30
12.1	837	2, 3, 4, 5, 8, 12
12.2	843	4, 10, 13, 15, 18, 28, 38
12.3	850	2, 6, 7, 10, 11, 12, 13, 15, 18, 22, 24, 28, 29, 3741, 44, 48, 49, 54
12.4	856	1, 2, 5, 6, 7, 9, 10, 15, 27, 28
		Tuesday May 8, 1:30−3:30 Comprehensive Final Exam