

Calculus III

MATH 30524

Fall 2009
WSH 148
MTRF 11:00 – 11:50 am

If people do not believe that mathematics is simple, it is only because they do not realize how complicated life is. – John von Neumann

Instructor: Dr. Efton Park
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Office Hours: 10:00 – 11:00 am MF, 1:00 – 2:00 pm TWR, and by appointment

Final Exam: 11:30 am – 2:00 pm Tuesday, December 15, 2009

Required Text: *Multivariable Calculus*, 9th edition, by Larson and Edwards

Additional Resources: A graphing calculator of some sort may be helpful but is not required.

Course Description: Vector calculus and multiple integration. Optimization and Lagrange multipliers. Vector fields and potential functions. Gradient, curl, and divergence. The theorems of Green, Stokes, and Gauss, as time permits.

Prerequisite: A grade of C or better in Calculus II (MATH 20524)

Purpose of Course: This course currently meets all or part of the following requirements for a degree:

- ❑ UCR math requirement
- ❑ Requirement within the Mathematics B.A. and B.S majors
- ❑ Requirement or elective for other majors

Course Objectives: By the end of this course, students will understand how ideas from Calculus I and Calculus II generalize to vector-valued functions and to functions of several variables.

Course Format

Your grade will be determined by your performance on three exams during the semester, daily online homework assignments, quizzes, and a cumulative final exam.

Homework: The homework assignments can be found online at <https://www.webassign.net/login.html>. You will need two things to log on to this site: (1) the class key, which is **tcu 0219 6578**, and (2) an access code. If you bought the Calculus III book at the TCU bookstore, it should have the access code bundled with the book. If you bought the Calculus III book elsewhere or have the version of the book that also contains the Calculus I and II material, you can purchase an access code at the WebAssign website for \$35.

I will typically assign homework at the end of each class, and I will usually begin each class by asking if there are questions about the homework. I will make each assignment due a couple of days after I assign it. You can work the assignment multiple times to improve your score, but only up to the time when it is due.

Quizzes: I will give quizzes during some classes. These will not be announced ahead of time, so you should be sure to attend class regularly and keep up with the material! I will only allow you to make up a quiz if you have a university-excused absence.

Grades: Your final grade will be determined according to the following percentages:

Exam 1	September 18	15%
Exam 2	October 20	15%
Exam 3	November 17	15%
Homework		15%
Quizzes		10%
Final Exam	December 15, 11:30 – 2:00	30%

You can track your progress in the course at eCollege. Click here for more information:

<http://www.elearning.tcu.edu/resources/howtologinvideo/howtologinvideo.asp>

Your final grade for the course will be based on a 1000-point scale, and the grades will be assigned as follows:

1000 – 920	A
919 – 900	A-
899 – 880	B+
879 – 820	B
819 – 800	B-
799 – 780	C+
779 – 720	C
719 – 700	C-
699 – 680	D+
679 – 620	D
620 – 600	D-
599 – 0	F

General Information

Attendance Policy: – I do not require attendance in my classes. However, you will do much better in the course if you regularly attend the lectures. If you choose to miss class, even in the case of a TCU-excused absence, you are responsible for the material covered on the day(s) that you miss. If you have a university-excused absence that happens to fall on an exam date, you must notify me in advance. In the case of illness on an exam date, contact me as soon as you know that you will be unable to take the exam.

Statement on Disability Services at TCU: Texas Christian University complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 regarding students with disabilities. Eligible students seeking accommodations should contact the Coordinator for Students with Disabilities in the Center for Academic Services located in Sadler Hall, 11. Accommodations are not retroactive, therefore, students should contact the Coordinator as soon as possible in the term for which they are seeking accommodations. Further information can be obtained from the Center for Academic Services, TCU Box 297710, Fort Worth, TX 76129, or at (817) 257-7486.

Academic Misconduct (Sec. 3.4 from the Student Handbook): – Any act that violates the academic integrity of the institution is considered academic misconduct. The procedures used to resolve suspected acts of academic misconduct are available in the offices of Academic Deans and the Office of Campus Life. Specific examples include, but are not limited to:

- Cheating: Copying from another student's test paper, laboratory report, other report, or computer files and listings; Using, during any academic exercise, material and/or devices not authorized by the person in charge of the test; Collaborating with or seeking aid from another student during a test or laboratory without permission; Knowingly using, buying, selling, stealing, transporting, or soliciting in its entirety or in part, the contents of a test or other assignment unauthorized for release; Substituting for another student or permitting another student to substitute for oneself;
- Plagiarism: The appropriation, theft, purchase or obtaining by any means another's work, and the unacknowledged submission or incorporation of that work as one's own offered for credit. Appropriation includes the quoting or paraphrasing of another's work without giving credit therefore.
- Collusion: The unauthorized collaboration with another in preparing work offered for credit.

TCU Campus Resources for Students: Many resources exist on the TCU campus that may be helpful to students: Mary Couets Burnet Library (<http://lib.tcu.edu>), Center for Academic Services (<http://www.acs.tcu.edu>), Student Development Services (<http://www.sds.tcu.edu>); and University Ministries (<http://www.faith.tcu.edu>). The TCU Math Clinic (<http://www.math.tcu.edu/mathClinic>) is also available free of charge for drop-in tutoring.

Email Notification: Only your official TCU student email address will be used for course announcements. It is your responsibility to check your TCU email on a regular basis.

TCU Mission Statement

To educate individuals to think and act as ethical leaders and responsible citizens in the global community