MTH 314-Calculus III
Course Syllabus: Spring 2015

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Phone: 886-5952
Fax: 903-886-5945

Office Hours: MWF: 11:00 – 12:00
T: 11:00 – 13:00 or by appointment.

Class Schedule: MWF: Noon-1:15 pm
SI-session: Friday Noon – 1:15
Location: BIN 302

COURSE INFORMATION

Textbook:

Chapters 12, 13, 14, 15 and part of 16 will be covered.

Technology:
TI-89 or TI-Nspire is highly recommended. A computer algebra system will be used for some problem exploration and enhanced conceptual understanding.

Course Description:

This course studies vector-valued functions; partial derivatives; multiple integrals; three-dimensional geometry; Green's Theorem; and Stoke's Theorem.
Prerequisite: MATH192, Calculus II
**Student Learning Outcomes:** Upon successful completion of this course, the students will be able to:

1. Solve problems involving lines, planes and vectors in 2 and 3 dimensions.
2. Apply differential calculus in several variables to solve a variety of problems involving optimization, directional derivatives and the gradient vector.
3. Compute double and triple integrals using rectangular, polar, cylindrical, and spherical coordinates.
4. Analyze conservative and non-conservative vector fields and their potential functions.
5. Apply line integrals and potential functions to compute work.
6. Interpret divergence and curl of vector fields.
7. Apply Stoke’s and Green’s theorems in geometric and physical calculations.

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**COURSE REQUIREMENTS**

**Instructional:** Lecture, modeling using software – time permitted.

**Attendance:** It is expected that you attend classes daily and it is your responsibility to sign the daily class roll sheet. It is expected that you follow the guidelines set forth by the Class Attendance Policy in the current undergraduate catalogue.

**Exams:** There will be three midterm exams and a comprehensive final exam for this course.

**Exam 1:** Friday February 20\(^{th}\) (5\(^{th}\) week)

**Exam 2:** Friday, March 27\(^{th}\) (10\(^{th}\) week)

**Exam 3:** Friday, April 24\(^{th}\) (14\(^{th}\) week)

**Final Exam:** Friday May 15\(^{th}\) 8:00 – 10:00 am

**Home work/Quizzes:** You are encouraged to try all the homework problems. There will be announced quizzes from the assigned homework problems.
Grading policy: The course grade consists of

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>3 Midterm Exams</td>
<td>300</td>
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<tr>
<td>8 Quizzes</td>
<td>70</td>
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<td>SI-sessions</td>
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<td>Final Exam</td>
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<td><strong>Total</strong></td>
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Notes:
- Lowest midterm grade will be replaced by the final exam grade if the final exam grade is higher.
- Lowest quiz grade will be dropped.
- Extra credit: You will receive extra credit for attending the Mathematics colloquium (which will be announced during the semester) and attending math club activities.

Grading Scale:

A: 90 – 100%, B: 80 – 89%, C: 70 – 79%, D: 60 – 69%, F: 0 – 59%

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<thead>
<tr>
<th>Week</th>
<th>Topic(section)</th>
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<tbody>
<tr>
<td>1</td>
<td>12.1, 12.2, 12.3</td>
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<td>2</td>
<td>12.4,12.5</td>
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<td>3</td>
<td>12.6,13.1</td>
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<td>4</td>
<td>13.2,13.3</td>
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<td>5</td>
<td>13.4,14.1, Exam 1</td>
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<tr>
<td>6</td>
<td>14.2, 14.3</td>
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<td>7</td>
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<td>8</td>
<td>14.6,14.7</td>
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<td>14.8,15.1</td>
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<td>13</td>
<td>15.8,15.9</td>
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<td>14</td>
<td>16.1,16.2, Exam 3</td>
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<td>15</td>
<td>16.3,16.4,16.5</td>
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Withdrawal Policy:
Concerning the deadlines and consequences of withdrawals please check on: 
https://ems.tamuc.edu/MasterCalendar/MasterCalendar.aspx

Make-up work:
No late tests will be given. If you miss a test, the final will be used to replace that score. No late homework will be graded and weekly quizzes will not be repeated if missed. However, a percentage of the homework and quiz grades will be dropped to cover days when an absence is unavoidable.

Getting Help:
You are welcome and encouraged to use office hours if you need any help during the semester. Further you can find free tutors at the Math Skills Center located in Binnion Hall 328.

Academic Integrity:
Texas A&M University – Commerce has explicit rules and regulations governing academic dishonesty and academic misconduct. These policies are stated in details in the student’s Guide Handbook. Each students is expected to read this document and abide by the contained polices. These university polices will be followed in class. The minimum penalty an act of academic dishonesty will be a grade of 0 on the examination or homework assignments.

University Specific Procedures

ADA Statement

Students with Disabilities
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services
Texas A&M University-Commerce
Gee Library- Room 132
Phone (903) 886-5150 or (903) 886-5835
Fax (903) 468-8148
StudentDisabilityServices@tamuc.edu

Nondiscrimination Statement
A&M-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

**Student Conduct**

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. (See *Code of Student Conduct from Student Guide Handbook*).