INSTRUCTOR: Arash Fahim (fahim[AT]math.fsu.edu)

OFFICE: LOVE 217

TIME: MW 12:20-1:10, TuTh 12:30-1:45, MCH0222

OFFICE HOURS: MW 10-11:30

COURSE WEBPAGE:

[http://www.math.fsu.edu/~fahim/Calc3F15](http://www.math.fsu.edu/~fahim/Calc3F15)

ELIGIBILITY AND PREREQUISITES: You must have passed MAC 2312 (Calculus II) with a grade of C- or better or have satisfactorily completed at least eight hours of calculus courses equivalent to MAC 2311 and MAC 2312. Students with more than eight hours of prior credit in college calculus are required to reduce the credit for MAC 2313 accordingly. It is the student’s responsibility to check and prove eligibility.

TEXTBOOK: *Calculus (Early Transcendentals)* (Seventh Edition), by James Stewart

COURSE CONTENT: Chapters 12–16 of the textbook.

COURSE DESCRIPTION: The purpose of this course is to introduce students to multivariate calculus and to some of its applications. This course covers analytic geometry in three dimensions, multiple integration, and vector calculus. The material in this course should be mastered before the student proceeds to courses for which it is a prerequisite. We start vectors and their arithmetic in 2d plane and 3d space and introduce some planer objects such as line and plane by equation as well as some curved surfaces such as ellipsoid. We continue by the concept of differentiation and integration of 2d and 3d functions and present their application. **Solid background on Calc1 and Calc2 is crucial** for learning this course.

The material in this course should be mastered before the student proceeds to courses for which it is a prerequisite.

COURSE OBJECTIVES:

The purpose of this course is to introduce students to more advanced topics in the calculus and to some of their applications. The material in this course should be mastered before the student proceeds to courses for which it is a prerequisite. Students will demonstrate the abilities to analyze and address theoretical problems as well as some real-world problems.

COMMUNICATION:
It is your responsibility to register for a (free) FSU computer account so that I can send you email, which you are expected to check regularly. If you prefer to read your email elsewhere then you can arrange to have messages forwarded, but you must still obtain an FSU account in the first instance. Please no cell phones are allowed in class.

GRADING:

There will be at least four unit tests, weekly homework assignments, pop-up quizzes and a final exam. Tentative dates for the tests:

TEST#1: Thursday, Sep 17.
TEST#2: Thursday, Oct 8.
TEST#3: Thursday, Oct 29.
TEST#4: Thursday, Nov 19.
FINAL: Tuesday Dec 8, 10am-12noon.
All the unit tests take place at the time of the class. Please be on time.

Numerical course grades (out of 100) will be determined according to the formula \( \frac{5U + H + 4F}{10} \) where
- \( U \) = the total unit test,
- \( H \) = the total homework assignment score,
and
- \( F \) = the final exam score.
All scores will be normalized to 100.\(^1\) For example if the unit test scores are 61, 55, 23, 44 out of 80, 60, 25, 48, respectively, then the total scores for unit test is \( \frac{61+55+23+44}{80+60+25+48} \times 100 = 85.91 \cdots \) which will always be rounded above to 86. Then, the letter grades will be determined from numerical grades as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Numerical Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>95-100</td>
</tr>
<tr>
<td>A-</td>
<td>90-94</td>
</tr>
<tr>
<td>B+</td>
<td>87-89</td>
</tr>
<tr>
<td>B</td>
<td>83-86</td>
</tr>
<tr>
<td>B-</td>
<td>80-82</td>
</tr>
<tr>
<td>C+</td>
<td>77-79</td>
</tr>
<tr>
<td>C</td>
<td>73-76</td>
</tr>
<tr>
<td>C-</td>
<td>70-72</td>
</tr>
<tr>
<td>D+</td>
<td>67-69</td>
</tr>
<tr>
<td>D</td>
<td>63-66</td>
</tr>
<tr>
<td>D-</td>
<td>60-62-</td>
</tr>
<tr>
<td>F</td>
<td>0-59</td>
</tr>
</tbody>
</table>

Grade "I" will not be given unless University policy and regulations will allow. Failure to process a course drop will result in a course grade of F.

\(^1\)The normalization to 100 for a out of A and b out of B, c out of C, ... is calculated by \( \frac{a+b+c+\cdots}{A+B+C+\cdots} \times 100 \)
HOMEWORK ASSIGNMENTS: Weekly homework will be assigned through webassign website. For more information about how to enroll with webassign please see http://www.webassign.net/user_support/student/contact_us.html.
Your homework assignments start with a pre-calculus 3 assignment which is already up on webassign.

UNIVERSITY ATTENDANCE POLICY:

Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

EXAM POLICY: No makeup tests or quizzes will normally be given. If a test absence is excused, then the final exam score may, at the instructor’s discretion, be substituted for the missing test grade. If a quiz absence is excused, then the next unit test grade will be used for the missing grade. An unexcused absence from a unit test will be penalized. An unexcused absence from a quiz will result in a grade of zero. Students must bring FSU ID cards to all tests.

ACADEMIC HONOR POLICY:

The Florida State University Academic Honor Policy outlines the University expectations for the integrity of students academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to, “. . . be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida State University.” (Florida State University Academic Honor Policy, found at http://fda.fsu.edu/Academics/Academic-Honor-Policy.)

AMERICANS WITH DISABILITIES ACT:

Students with disabilities needing academic accommodation should:

(1) register with and provide documentation to the Student Disability Resource Center; and
(2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center
874 Traditions Way
108 Student Services Building
Florida State University
SYLLABUS CHANGE POLICY:

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.

Free Tutoring from FSU:

On-campus tutoring and writing assistance is available for many courses at Florida State University. For more information, visit the Academic Center for Excellence (ACE) Tutoring Services comprehensive list of on-campus tutoring options - see http://ace.fsu.edu/tutoring or contact tutor@fsu.edu. High-quality tutoring is available by appointment and on a walk-in basis. These services are offered by tutors trained to encourage the highest level of individual academic success while upholding personal academic integrity.