MAC2311-001 (20446) (Fall 2017) – Calculus with Analytic Geometry 1

Syllabus

Course title/number, number of credit hours
Course Title: Calculus with Analytic Geometry 1
Term: Fall, 2017
Classroom location: ED123 WF 8:00-9:50am

Is this an online course: Yes ___ or No _x__ Credit hours 4

CRN(optional): 20446
Course number: MAC 2311 0

Course prerequisites or corequisites
Course number: MAC 1140
Pre requisites Course Title: Precalculus Algebra
Course number MAC 1114
Prerequisites Course Title: Trigonometry
--or--
Course number: MAC 1147
Pre requisites Course Title: Precalculus Algebra and Trigonometry
--or--

ALEKS score of 65
Permission of the instructor is required:
Yes ____ or No _x__

Instructor contact information
Instructor: Frederick Hoffman
Office: SE 212A
Office Hours: WTF 10-10:50am and by appointment
Office Phone: (561) 297-3345
E-mail Address: hoffman@fau.edu

TA contact information (if applicable) Learning assistant:
Danica Brozowski
dbrozows@fau.edu
MLC Hours:
WThF 10am-Noon

Course description
Description: Topics include continuity, differentiability, differential approximation, optimization, curve sketching, transcendental and inverse functions, mean value theorem, l'Hôpital's Rule, introduction to integration and development of problem-solving skills.

Objectives, Learning Outcome Goals: Upon successful completion of the course the student will be able to solve problems in the following areas and achieve the quantitative skills required for courses requiring calculus 1:

• Limits
• Continuity
• Differentiation
• Curve sketching
• Transcendental and inverse functions
• The Mean Value theorem
• L'Hôpital's rule
• Related rates and related rates problems
• Optimization problems
• Introduction to integration, including the Fundamental Theorem of Calculus.
• The application of mathematical modeling to other disciplines and real-world problems using a
variety of functions.

**IFP General Education Outcomes:**
1. Knowledge in several different disciplines;
2. The ability to think critically;
3. The ability to communicate effectively;
4. An appreciation for how knowledge is discovered, challenged, and transformed as it advances; and
5. An understanding of ethics and ethical behavior.


**General Education:** This course satisfies, in part, the general education requirements for Foundations of Mathematics and Quantitative Reasoning.


Course topical outline

**Textbook:** Stewart, *Calculus: Early Transcendentals*, 8th ed. with Webassign access code
Available for purchase at the FAU bookstore, or here:
[http://services.cengagebrain.com/course/site.html?id=1411475](http://services.cengagebrain.com/course/site.html?id=1411475)

...where you can purchase an access code (which comes with an e-book), or if you prefer a physical manifestation of the book you can get a looseleaf book plus access code. The access code is good for all three semesters of Calculus.

For students who like to get instant feedback on problems, there is a set of WebAssign problems for this course available online. Doing these is optional. There are many other goodies available to you on the system, also.

**Course Content:** We will cover topics from the following chapters
- Ch. 2: Limits and Derivative
- Ch. 3: Differentiation Rules
- Ch. 4: Applications of Differentiation
- Ch. 5: Integrals

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**Calculus 1 – Learning Assistant (LA) Program:**
This section of Calculus 1 will incorporate the LA Program. LAs are fellow undergraduate students who have been successful in Calculus 1. LAs will help lead small group discussions during each lecture. LAs will also assist students in actively learning and critically thinking about the course content during additional Math Learning Center (MLC) hours.

**Worksheet Assignments (in class):**
This LA based curriculum is designed to allow students to learn calculus by doing calculus. Each in-class lesson consists of approximately 45 minutes of lecture. Following this lecture, the students will be given worksheets with applications and practical exercises related to the new material. For the remainder of the class, students will work through these exercises in small groups. Performance during the in-class portion will be graded as either satisfactory (S) or unsatisfactory (U) and, combined with pre-worksheet scores (see below) will make up 6% of the course grade. Earning an S for any lesson will require students to be present for the entire class (lecture and small group) as well as active and enthusiastic participation when working in small groups. **Attendance alone is not sufficient to receive an S.**
Worksheet Assignments (homework and pre-worksheets):
Each class period, you will be given a pre-worksheet that is to be completed and turned in AT THE START of the next class period. These contain mostly prerequisite reminders and require you to read material in the textbook before we cover it in the next class. Each in-class worksheet contains several problems to be completed as homework (at the bottom). Students will be expected to complete this homework assignment prior to the next lecture. Any portion of the in-class section which is not completed during class must also be completed and turned in with the corresponding homework AT THE START of the next class period. To be clear, all worksheets/pre-worksheets are due at the beginning of the following lecture and late assignments are graded as a 0 unless you have a documentable reason. Completion of these homework assignments will make up 20% of the course grade.

LA Program (in MLC):
Homework will be returned the lecture after it is collected and students will be given the opportunity to raise their grade 30% points by attending LA sessions in the MLC. Students will have one week from the date the homework is returned to take advantage of this opportunity. Students are expected to come prepared with questions on the problems that they missed and work with the LA until the student fully understands ALL the material that was missed. Students will not receive points simply for showing up. Once the LA is convinced that the student understands all of the missed homework, the grade will be raised. If you attend LA hours when there is less than 20 minutes remaining, you will be asked to attend another session where there is time to sufficiently review your work. All homework missed must be completed to the LA’s satisfaction or there will be no grade change. It is the STUDENT’s responsibility to have the LA sign the top of the homework once corrections are completed—this is helpful in the case there is a discrepancy with the grade change.

Attendance:
Regular attendance during lectures, LA sessions, and office hours is expected. To minimize disruption to the learning environment, you are requested to arrive on time and not leave until the end of class. Also, you must be in attendance to receive the worksheets/pre-worksheets for each lecture and therefore, poor attendance will also negatively affect your homework grades. If you do arrive to class late or must leave early, please do so as quietly as possible.

Exams:
We will have 3 midterm exams each worth 18% of the final course grade and a cumulative final exam worth 20% of the final course grade. No books, notes, or calculators are allowed during exams.

Tentative exam dates:
Midterm 1: September 15
Midterm 2: October 13
Midterm 3: November 8
Final Exam: Sunday, December 10, 2017 from 4-6:30pm (Room: TBA)

Exam and Worksheet Makeups:
A student who must miss a midterm or final exam may make it up or take it early only with permission from the instructor. It is the student’s responsibility to let the instructor know at least one week ahead of time (if possible) or within twenty-four hours of an unanticipated event, and to provide a documentable reason. Makeups for exams missed without prior permission will be allowed only in cases of emergency and documentation will be required. In particular, makeup exams will not be given for exams missed due to traffic, weather, or similar concerns. Worksheets handed out in class and the included homework will not be eligible for a makeup without a documentable reason.
Grade Distribution:

- Homework/Worksheets: 20%
- Pre-worksheets/Participation: 6%
- Exams (each): 18%
- Final Exam: 20%

Course Grading Scale:

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<tr>
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<tr>
<td>A</td>
<td>90-100</td>
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<tr>
<td>A-</td>
<td>87-89</td>
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<tr>
<td>B+</td>
<td>83-86</td>
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<tr>
<td>B</td>
<td>80-82</td>
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<tr>
<td>B-</td>
<td>77-79</td>
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<tr>
<td>C</td>
<td>65-72</td>
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<tr>
<td>D</td>
<td>55-64</td>
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<td>F</td>
<td>&lt; 55</td>
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Incomplete grades: A grade of I will only be given under certain conditions and in accordance with the academic policies and regulations put forward in FAUs University Catalog. The student has to show exceptional circumstances why requirements cannot be met. A request for an incomplete grade has to be made in writing, with supporting documentation, where appropriate. [http://www.fau.edu/academic/registrar/catalog/academics.php#policiesall](http://www.fau.edu/academic/registrar/catalog/academics.php#policiesall)

Pacing Guide

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<td>2.5, 2.6</td>
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<td>Week 2 – 8/30 and 9/1</td>
<td>2.7, 2.8</td>
<td>3.1, 3.2</td>
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<td>Week 3 – 9/6 and 9/8</td>
<td>Review, Exam 1</td>
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<td>Week 4 – 9/13 and 9/15</td>
<td>3.3, 3.4</td>
<td>3.4, 3.5</td>
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<td>Week 5 – 9/20 and 9/22</td>
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<td>4.4</td>
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<td>Week 9 – 10/18 and 10/20</td>
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<td>4.7</td>
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<td>Week 10 – 10/25 and 10/27</td>
<td>4.7, 4.8</td>
<td>4.9, Review</td>
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<tr>
<td>Week 11 – 11/1 and 11/3</td>
<td>Exam 3, Veterans Day, no class</td>
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<td>Week 12 – 11/8 and 11/10</td>
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<td>5.3, 5.4</td>
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<td>Week 13 – 11/15 and 11/17</td>
<td>5.5</td>
<td>Thanksgiving-no class</td>
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<td>Week 14 – 11/22 and 11/24</td>
<td>6.1</td>
<td>Review</td>
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<td>Week 15 – 11/29 and 12/1</td>
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Final Exam: Sunday, December 10 from 4-6:30pm (Room: TBD)
Classroom Etiquette
Please refer to the FAU Code of Conduct available at

Honor Code
Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001 at http://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf

FAU Accessibility Services
In compliance with the Americans with Disabilities Act (ADA), students who require special accommodation due to a disability to properly execute coursework must register with FAU Student Accessibility services (SAS) and follow all SAS procedures. In Boca Raton, SU 133 (561-297-3880); in Davie, MOD 1 (954-236-1222); in Jupiter, SR 117 (561-799-8585); or at the Treasure Coast, CO 128 (772-873-3305). ASA website at http://www.fau.edu/

Free math tutoring: The MLC provides the following FREE academic support services for FAU students:
1. Drop-in tutoring in the MLC GS211 during all hours of operation
   a. Monday – Thursday: 9am – 6pm, Friday: 9am – 4pm, and Sunday: 1pm – 5pm
2. Small group tutoring by appointment
   a. Appointments can be made in TutorTrac. If you need instructions on making appointments, please email mlc@fau.edu or see the Associate Director in GS211E
3. eTutoring (remote online tutoring)

This syllabus is subject to reasonable changes.