

## CALCULUS & ANALYTIC GEOMETRY I SYLLABUS – MATH 231 – Fall 2016

MATH 231 – 29160 – SECTION 008 – TR 8:00-9:50 AM – ROOM EMS E145

Textbook: *Essential Calculus (2<sup>nd</sup> Edition)*, by James Stewart.

Instructor: Xianghong Chen

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Office: EMS E490; (414) 229-4933

Office Hours: F 9:00-10:00 AM (PHY 326), 1:00-2:00 PM (EMS E490)

### PRE-REQUISITES:

Math Placement Level A, or any of the following

A Math Placement Test Code of 40

A score of 61 or higher on the CLEP Precalculus Exam

A grade of C or better in both Math 116 and Math 117

A grade of C or better in both Math 211 and Math 117

A grade of C or better in Math 116 and Math Placement Test Code 36

A grade of C or better in Math 211 and Math Placement Test Code 36

A grade of C or better in Math 117 and Math Placement Test Code 35

### IMPORTANT DATES:

Tuesday, Sept 6 First day of classes

Monday, Sept 12 Math Department's last day to add a class

Monday, Sept 19 Last day to change among credit/no credit/audit status in PAWS

Monday, Oct 3 Last day to drop without a "W" (Withdrawn) on your record

Friday, Oct 28 Last day to drop. No student may drop after Oct 28 for academic reasons

Wednesday, Dec 14 Last day of classes

Thursday, Dec 15 Study Day

Friday, Dec 16 Comprehensive Final Exam - 7:30-9:30am, EMS E295

### GRADING:

HW and Quizzes	18%
Gateway Exams	16%
Two Midterm Exams	18% each
<u>Final Exam</u>	<u>30%</u>
Total	100%

There are four Gateway Exams. Each exam will be given once in class. The exams are graded with no partial credit, and must be passed with a score of 80% or better (otherwise your maximum possible grade in this class will be a "C-"). Gateways may be retaken, once per day (Monday-Friday), in the Gateway Testing Center (PHY 330). All retakes should be completed within two weeks of the return of the in-class test. Only the highest grade on each Gateway Exam counts toward the final grade.

All quizzes, Gateway Exams, the two midterm exams, and the comprehensive final exam are closed book, no notes, no calculator. No makeups will be given except for tests missed for religious observance or documented medical emergency. There will be several quizzes throughout the semester. The lowest two homework/quizzes scores will be dropped. Homework will be collected regularly and graded for

completeness (NOT correctness), work shown, and proper use of mathematical language and notation. The total of your homework grades counts as one quiz grade, and can be one of the dropped grades. Grading scale: 100-93 A, 92-90 A-, 89-87 B+, 86-83 B, 82-80 B-, 79-77 C+, 76-73 C, 72-70 C-, 69-67 D+, 66-63 D, 62-60 D-, 59 or below F.

Prior to each class, you should read the sections of the textbook that will be covered that day. The course covers a lot of material quickly. It is important to keep up. If you find yourself falling behind or getting confused, act immediately to catch up. Take advantage of the instructor's office hours as well as other campus resources.

Course Outline (Subject to change)

Week 1	Sept 6-9	Sections 1.1, 1.2; Preliminary Exam
Week 2	Sept 12-16	Sections 1.3, 1.4, 1.5; Quiz 1
Week 3	Sept 19-23	Sections 1.6, 2.1; Gateway 1 (Limits)
Week 4	Sept 26-30	Sections 2.2, 2.3, 2.4; Quiz 2
Week 5	Oct 3-7	Sections 2.5, 2.6, 2.7; Quiz 3
Week 6	Oct 10-14	Sections 2.8, 3.1; Gateway 2 (Derivatives)
Week 7	Oct 17-21	Section 3.2; Review; Midterm Exam One
Week 8	Oct 24-28	Sections 3.3, 3.4, 3.5; Quiz 4
Week 9	Oct 31-Nov 4	Sections 3.6, 3.7; Gateway 3 (Graphing)
Week 10	Nov 7-11	Sections 4.1, 4.2, 4.3; Quiz 5
Week 11	Nov 14-18	Sections 4.4, 4.5, 5.2; Quiz 6
Week 12	Nov 21-23	Section 5.3, 5.4; Gateway 4 (Integration); Thanksgiving
Week 13	Nov 28-Dec 2	Review; Midterm Exam Two
Week 14	Dec 5-9	Sections 5.1, 5.5, 5.6; Quiz 7
Week 15	Dec 12-14	Section 5.7; Review
Finals Week	Dec 16-17; 19-23	The Final Exam is Friday Dec 16 <sup>th</sup> , 7:30-9:30am, Room TBD

Suggested Homework Problems (o=odd; eoo=every other odd)

1.1	1-7, 19-29o, 33, 35, 39, 41, 57-59, 61, 63	3.4	1-33eoo, 39, 41
1.2	1-17 eoo, 19, 23-43eoo, 47, 49, 55abc,59	3.5	3, 5, 7, 9, 11, 15, 17, 25, 32-56 any 5
1.3	3-9o, 29-37o,	3.6	1-7
1.4	1, 11-27o, 33, 44, 49-55o	3.7	1-13o, 17-33eoo, 35-45o
1.5	3-5, 7, 13-23o, 27-33o, 39-42	4.1	1-15o
1.6	1-7o, 13-33eoo, 41, 43, 45, 49b	4.2	1, 7, 9, 11, 15-25o, 29-45o
2.1	1, 3-6, 9, 11, 15, 19, 21, 25-35o, 37-45o	4.3	1-29o, 31, 33, 37, 39, 43-49o, 50-66 any 4
2.2	1-15o, 19-23o, 33, 35, 39, 41	4.4	1-21o
2.3	1-43eoo, except 29, 47-57o, 61	4.5	1-47o
2.4	1-29o, 33-43o, 51, 53	5.1	1-25o, 33-41o
2.5	7-41eoo, 43-47o, 51, 53, 63, 67	5.2	1-41o, 45, 51-61o
2.6	1-15o, 19-27o, 35, 37, 39, 45	5.3	1-37o, 41, 43, 45, 49, 51, 61-69o
2.7	1-7o, 9, 13, 15, 21, 23, 27, 31, 37, 39	5.4	1-9o, 23-37o, 41-45o
2.8	1-4, 11, 13, 19, 21, 23	5.5	3, 9, 13, 19
3.1	1-43o, 45, 57o	5.6	1-6, 17-31o, 33, 35, 39-47o
3.2	1-11o, 15-25o	5.7	1-19o, 25, 27-41o, 44, 45, 47, 53-61o
3.3	1-35o, 37, 41, 43		

INCOMPLETES: In order to be given an incomplete, all of the following conditions should be met:

- a) You are already passing the course with the work that has been completed;
- b) You have only a "little" work to be finished; and,
- c) You can give substantiation of illness or other unusual non-academic circumstances beyond your control that have prevented you from completing the course on time.

REPEAT POLICY: Students repeating a Mathematical Sciences course for the second time (third taking) must do the following:

1. Obtain permission from student's academic deans' office for the repeat.
2. Meet with the Undergraduate Advisors for approval, Profs. Jay Beder or Suzanne Boyd.
3. Take completed and signed drop/add form (including academic dean approval and Math Department approval) to Mellencamp Hall 274.

Other pertinent information:

1. Room changes and cancellations are valid only if posted on Math Department letterhead and sent via email.
2. Students with disabilities or who qualify for accommodations (VISA) should contact me early in the semester to discuss the assistance they may need.
3. Texting is not permitted during class time. Cell phones and smart watches should be turned off.
4. The minimum amount of time that an average student should expect to invest to successfully complete this course includes: 50 hours in class; 8 hours taking quizzes, tests and exams; 100 hours completing homework assignments; 35 hours studying for assessments. Total: 193 hours.
5. Drop-in tutoring is available in the East Wing of the library. Hours are posted here: <http://uwm.edu/math/undergraduate/resources/tutoring/>
6. The **Calculus Workshop** is located in Physics 326 & 328. Drop in and find a quiet place to study, do homework with peers from other sections, find tutors, meet with faculty, and fully engage in studying and learning the Calculus!
7. Academic Misconduct: The University has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Further information can be found at: <http://uwm.edu/academicaffairs/facultystaff/policies/academic-misconduct/>
8. Discriminatory conduct: Discriminatory conduct will not be tolerated by the University. It poisons the work and learning environment of the University and threatens the careers, educational experience, and well-being of students, faculty, and staff. The policy on discriminatory conduct, including sexual harassment, can be found at: [https://www4.uwm.edu/secu/docs/other/S\\_47\\_Discriminatory\\_Conduct\\_Policy.pdf](https://www4.uwm.edu/secu/docs/other/S_47_Discriminatory_Conduct_Policy.pdf)