

GROSSMONT COLLEGE
Math 180: Calculus I
Spring 2016 Syllabus

perseverance *noun*

1. steadfastness in doing something despite difficulty or delay in achieving success.

“The three great essentials to achieve anything worthwhile are, first, hard work; second, stick-to-itiveness; third, common sense.” ~Thomas A. Edison

Class Meets: Section #8016 MW: 11 –12:15 pm, TuTh: 11 –11:50 am, Bldg 31, Room 357 (5 units)

Instructor Jenny Vanden Eynden (pronounced vān-dĕn ěn-dĕn)

Contact Info: Email: jenny.vandeneinden@gcccd.edu

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Website: www.grossmont.edu/people/jenny-vanden-eynden/

Office Hours: Bldg 70, Room 212 (located on the second floor of the Tech Mall)

Tues, Wed, Thurs: 10:15 – 10:45pm,

Mon, Wed: 1:15 – 1:45pm,

Tues, Thurs: 2:30 – 3:45pm,

or **by appointment**



Prerequisite: “C” grade or higher in Math 170 AND Math 175 (or a “C” grade or higher in Math 176) is required. You are responsible for knowing all College Algebra and Trigonometry topics; only Calculus techniques will be taught in this course.

Textbook: *Single Variable Calculus: Early Transcendentals* by James Stewart
7th CA edition ISBN 978-0-495-97848-0, or 7th edition ISBN 978-0-538-49867-8
OR *E-book on WebAssign.com*: Class Key: **gcccd 2663 1760**

Required: A graphing calculator. The math department recommends the TI-84 or TI-84plus. I will be using a TI-84plus in class. Be aware that there may be portions of exams or entire exams where calculators can NOT be used. The TI-Nspire CX CAS, TI-Nspire CAS with Touchpad, TI-89, TI-92, TI-Voyage200, (or equivalent) can NOT be used during exams or quizzes. **NOTE:** Calculators can not be shared during exams/quizzes, so please bring your own calculator to every class period.

Overview: This course is the first semester course in calculus intended to discuss calculus of single variable functions. This course includes topics from analytic plane geometry, limits and continuity of function, differential and integral calculus with applications involving algebraic, exponential, logarithmic, and trigonometric functions.
This course covers Chapters 2, 3, 4, 5, 6, 8.1, and 8.2 in the Stewart textbook.

Student Learning Outcomes:

Each student who successfully completes this course will be able to do the following:

- Define and apply the concepts of limits, continuity, derivatives and antiderivatives to solve a variety of problems.
- Demonstrate understanding of the geometric relationship between a function, its first and second derivatives and its antiderivatives.
- Interpret and analyze information to develop strategies for solving problems involving related rates, optimization, work, volumes, arc length, and surface area.
- Communicate the mathematical process and assess the validity of the solution.

Grading:

Your grade for the course is based on:	
• Quizzes/Activities	worth 20%
• 5 Exams (11% each)	worth 55%
• <u>Final Exam</u>	worth 25%
TOTAL	100%

The grading scale for this course is:	
98 – 100 %	A+
92 – 97 %	A
90 – 91 %	A–
88 – 89 %	B+
82 – 87 %	B
80 – 81 %	B–
78 – 79 %	C+
70 – 77 %	C
60 – 69 %	D
Below 60%	F

For Pass/No Pass option: 70 – 100 % = **Pass**,
 Below 70% = **No Pass**

You can NOT get a passing grade in this class without taking the FINAL EXAM!

Blackboard: Information for this course, including checking your current grade, take-home quizzes and exam reviews, will be available on Blackboard. <http://gcccd.blackboard.com/>
 Your username is your name with a dot separating the first and last name. The password is your 6 digit birthdate. Username: first.last Password: MMDDYY

For example, Jane Smith born Username: jane.smith
 June 1, 1995, would enter : Password: 060195

Homework: Math is a subject learned by *doing*, not just watching. Therefore *doing your homework* is very important to succeed in this class. The homework assignments are designed to **prepare you for exams and quizzes**. Although I am NOT collecting homework for credit, it is very important for your success to do the recommended homework assignments.

- Homework will be assigned daily, about 1 section per day.
- Mostly I assign odd numbered problems so that you can check your answers in the back of the textbook. There is also an optional Student Solutions Manual available.
- I expect you to attempt all assigned exercises before the next class meeting.
- It is a good idea to keep all your homework in a notebook or binder.
- Can't figure out a problem? Get help!
 - Ask questions in class
 - Talk to other students and form study groups
 - Come to my office hours for help
 - Get tutored in the Math Study Center (70-112/113) or in the Tutoring Center (70-202).
- I will also answer homework questions at the beginning of class.
- **Do not attempt to take exams and quizzes in this class without doing homework!**

Quizzes: Weekly quizzes, both announced and unannounced, will be given in this course. Some will be in-class, and some will be take-home. Because of this, it is important that you come to class every day, and come to class prepared! **Make-up quizzes will NOT be given.** If you miss class on an in-class quiz day, you can not take the quiz late. If you missed getting a take-home quiz, you should contact the instructor for a copy or look on Blackboard. However you are still responsible for turning in all take-home quizzes on-time with the rest of the class. If you fail to turn in a quiz, you will earn a zero. However, your *lowest quiz score will be dropped*. No cell-phones, notes or books will be allowed on in-class quizzes.

Exams: There will be **5** in-class exams and a **cumulative** Final Exam. **No exams will be dropped. Again, NO EXAMS WILL BE DROPPED.** Exams will include questions over material assigned in the text, readings and handouts, as well as material presented in class. If you do not take an exam, you will receive a ZERO for it.

Late exams may ONLY be taken by PRIOR ARRANGEMENT or in the case of a DOCUMENTED emergency.

Remember that it is **your responsibility** to contact me (by email, phone, mailbox, or in person) **immediately** if a conflict arises (meaning, I expect to hear from you the day of the missed exam). No cell-phones, notes or books will be allowed on exams.

Final Exam: The final is **MANDATORY** and **CUMULATIVE** and will be given
Wednesday, May 25, 11:35am - 1:35pm, Room 357
You can NOT get CREDIT in this class without taking the final exam!

Attendance: Attendance is expected at each class meeting. Bring your text and calculator to every class. **You can be dropped from the class for having more than 4 unexcused absences.** Late arrival and early departure from class may be counted as an absence. Please discuss any anticipated absences with me as soon as possible. In the event of an absence, you are responsible for:

- all material covered in class
- turning all assignments in **on time**
- any schedule changes or class announcements

The last day to drop this class with a “W” recorded is **April 22 (Friday)**. It is YOUR responsibility to drop the class by this date if you choose to do so. After this date, anyone still enrolled in the class will receive a letter grade (or P/NP) at the end of the semester.

Classroom Conduct: Class time is valuable. You are expected to be courteous to each other and to the instructor. You will be asked to leave the class for display of behavior the instructor deems as disruptive to the class environment. **During class, all phones, music players, and other distracting electronic devices must be turned off or put in silent mode AND put away.**

Absolutely NO CELL PHONE USE, WEB SURFING or TEXTING is allowed in class! If you are disruptive in class (after being warned), you could be suspended from the course for up to 2 days. If you use a cellphone, smartphone, iPad, iPod or any other **unapproved** device during an in-class quiz or exam, you will **earn ZERO POINTS on that assessment, which will adversely affect your grade in the course.**

At Grossmont College and in this class, we promote acceptance of all people, including those of diverse age, ancestry, color, disability, ethnicity, perspective, national origin, religion, gender, gender identity, sexual orientation, education, or socioeconomic status.

Derogatory comments about another's race, ethnicity, accent, appearance, intelligence, or sexual orientation will not be tolerated on any level.

Please see the Grossmont College Catalog for a full statement of the Student Code of Conduct.

Expectations: Enrolling in a course represents a commitment to attend class and to participate fully in the learning process. I expect you to:

- Turn off your cell phone and any other disruptive devices before coming to class.
- Come to every class meeting on time and prepared.
- Be attentive, take notes, and remain seated until class is over.
- Participate in class—active learners get more out of class time!
- Be respectful of your classmates and myself.
- Do (this means attempt/try/check) all the homework assigned by the next class meeting.
- Ask questions about the material before, during and after class, or during office hours.
- Put in the effort required to succeed in this course!
- Keep a positive attitude and **persevere!**

Important Dates	February 5:	Last day to drop without a “W” (and for refund)
	February 15:	Holiday (President’s Day)
	March 21 – 25:	Spring Break
	April 22:	Last day to drop classes with a “W”
	May 25:	Final Exam 11:35 AM – 1:35 PM, Room 357

*This course adheres to the policies outlined in the Grossmont College Catalog.
See the Academic Policies stated in the catalog.*

Math 180 First Day Homework Diagnostic Tests

Text: *Single Variable Calculus: Early Transcendentals* by James Stewart, 7th Edition.

Page	Section	Problems
p. xxiv	A: Algebra	1, 5, 6, 10
p. xxvi	B: Geometry	1, 4
p. xxvii	C: Functions	1, 2, 3, 5, 6
p. xxviii	D: Trigonometry	4, 5, 8

If you have difficulty with these problems, you may wish to consult the “Review of Algebra”, “Review of Analytic Geometry” (both at www.stewartcalculus.com), Sections 1.1- 1.3, and/or Appendix D in the textbook.

Text: *Single Variable Calculus: Early Transcendentals* by James Stewart, 7th Edition.
(Assignments may be altered)

<u>Section</u>	<u>Assignment</u>
2.1 / p. 86	3, 5, 7
2.2 / p. 96 – 98	5 – 19 (odd), 29 – 37 (odd), 41
2.3 / p. 106 – 107	1 – 31 (odd), 35 – 51 (odd)
2.5 / p. 128 – 129	1 – 11 (odd), 17 – 31 (odd), 35, 37, 41, 43, 45, 51, 53, 55a
2.6 / p. 140 – 141	3, 5, 7, 9, 15 – 37 (odd), 41, 43, 45
2.7 / p. 150 – 152	3 – 23 (odd), 27 – 41 (odd), 47
2.8 / p. 162 – 165	3 – 15 (odd), 21 – 29 (odd), 37, 39, 43, 45
3.1 / p. 181 – 182	3 – 37 (odd), 43, 45, 47, 51 – 57 (odd)
3.2 / p. 189 – 190	1 – 35 (odd), 43 – 49 (odd)
3.3 / p. 197 – 198	1 – 25 (odd), 29, 31, 33, 39 – 45 (odd)
3.4 / p. 205 – 206	1 – 33 (odd), 37, 39, 41, 45 – 53 (odd), 59 – 67 (odd), 77
3.5 / p. 215 – 216	1, 5 – 15 (odd), 19, 21, 25 – 37 (odd), 49 – 57 (odd)
3.6 / p. 223	3 – 33 (odd), 39 – 47 (odd)
3.7 / p. 233 – 236	1, 5, 7, 9, 13a & b, 15, 31
3.9 / p. 248 – 249	1 – 15 (odd), 19, 21, 27, 29, 31, 41, 44
3.10 / p. 255	1, 3, 5, 11 – 27 (odd), 31
4.1 / p. 280 – 281	3 – 43 (odd), 47 – 61 (odd)
4.2 / p. 288 – 289	1 – 15 (odd), 23, 25
4.3 / p. 297 – 299	1, 5 – 19 (odd), 23, 25, 29 – 45 (odd), 49
4.4 / p. 307 – 308	1 – 65 (every other odd), 73
4.5 / p. 317 – 318	1 – 21 (odd), 29, 37, 45, 51, 65 – 69 (odd)
4.7 / p. 331 – 334	1 – 7 (odd), 11 – 21 (odd), 33, 35
4.8 / p. 342	3, 5, 7, 13, 15, 31
4.9 / p. 348 – 350	1 – 17 (odd), 25 – 43 (odd), 51, 53, 59 – 65 (odd), 69
5.1 / p. 369 – 370	1, 3, 5, 9 (use web calculator), 13, 17
5.2 / p. 382 – 384	1, 3, 17, 19, 33 – 53 (odd)
5.3 / p. 394 – 395	3 – 9 (odd), 19 – 41 (odd), 51, 53, 63, 67
5.4 / p. 403 – 405	1 – 43 (odd) (skip 13), 49 – 55 (odd), 59, 61
5.5 / p. 413 – 414	1 – 47 (odd) (skip 37), 53 – 63 (odd), 81
6.1 / p. 427	1 – 27 (odd), 47, 53
6.2 / p. 438	1 – 17 (odd)
6.3 / p. 444 – 445	1 – 23 (odd), 37, 39
6.4 / p. 449 – 450	1, 3, 5, 7, 9, 11, 13
6.5 / p. 453 – 454	1 – 17 (odd)
8.1 / p. 543	1 – 11 (odd), 15
8.2 / p. 550	1 – 15 (odd) (skip 9)

Math 180, Spring 2016**Grossmont College****TENTATIVE SCHEDULE (as of 1/25/16)****Vanden Eynden****Section #8016**

Week of:	Monday	Tuesday	Wednesday	Thursday
Week 1 1/25 – 1/29	Intro, Review	2.1	2.2	2.3
Week 2 2/1 – 2/5	2.3, 2.5	2.5	2.6	2.6
Week 3 2/8 – 2/12	2.7	2.7	2.8	3.1
Week 4 2/15 – 2/19	<i>Presidents Day</i>	<i>Review</i>	Exam 1, Ch 2	3.2
Week 5 2/22 – 2/26	3.2, 3.3	3.3	3.4	3.5
Week 6 2/29 – 3/4	3.5, 3.6	3.6	3.7	3.9
Week 7 3/7 – 3/11	3.9	<i>Review</i>	Exam 2, Ch3	3.10
Week 8 3/14 – 3/18	4.1	4.2	4.3	4.3, 4.4
SPRING BREAK, March 21 - 25, NO CLASSES				
Week 9 3/28 – 4/1	4.4	4.5	4.7	4.7
Week 10 4/4 – 4/8	4.8	<i>Review</i>	Exam 3, Ch 4	4.9
Week 11 4/11 – 4/15	5.1	5.1, 5.2	5.2	5.3
Week 12 4/18 – 4/22	5.3, 5.4	5.4	5.5	5.5
Week 13 4/25 – 4/29	6.1	<i>Review</i>	Exam 4, Ch 5	6.2
Week 14 5/2 – 5/6	6.2, 6.3	6.3	6.4	6.5
Week 15 5/9 – 5/13	Catch-up	<i>Review</i>	Exam 5, Ch 6	8.1
Week 16 5/16 – 5/20	8.2	<i>FINAL REVIEW</i>	<i>FINAL REVIEW</i>	<i>FINAL REVIEW</i>
Week 17 Finals Week 5/23 – 5/27	<i>No class</i>	<i>No class</i>	Final Exam 11:35-1:35pm	<i>No class</i>

Math 180 Final Exam on Wednesday, May 27, 11:35am - 1:35pm, Room 357