## MATH 2413 - Calculus I Syllabus

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Phone:	806-716-2739		
Office Hours:	MW: 11 am - 2:15 pm, Fri: 8 am - 11 a	am	
	or by appointment.		

Materials: Students must have regular access to the materials listed below.

- Textbook: Calculus, Volume 1 OpenStax CNX.. This text my be retrieved at https://openstax.org/details/books/calculus-volume-1 (a direct link is also available on blackboard).
- Writing: Suitable writing instruments and paper for taking notes and completing assignments. Written work will be handed in virtually by use of blackboard or email (instructions for how to do this are in a later section). Turned in work should be done in pencil, dark enough to be clearly seen on a digital scan.
- Calculator: Calculators with  $e^x$ , ln, and trigonometric function keys will be required. These can be found on scientific calculators (inexpensively obtained from Wal-Mart or any other bigbox store) or graphing calculators. There are free online options such as Wolfram Alpha (wolframalpha.com), Desmos (www.desmos.com Desmos also has smartphone apps) or GeoGebra (www.geogebra.org). Smartphone apps such as Panecal or ClassCalc are also available for low cost (or free).
- Computer: Regular access to a reliable computer and internet connection will be required for study and for completion of assignments. Access to a printer may be needed to print out some assignments. If you do not currently have a computer, or the technology you have becomes unusable, each computer lab at any of SPC's campuses will be available throughout the semester as well. Students will also need a scanner, or a smartphone scanning app for submitting written assignments. As part of their enrollment at SPC, all students have access to Microsoft OneDrive via their SPC email and login. Instructions on how to use OneDrive to scan and submit assignments can be found in the Syllabus and Materials section of the blackboard course (instructions are similar for other scanning apps).
- Blackboard: Blackboard (accessible via the SPC website) will be used as a central hub for the course. Students will find this syllabus, and all other course materials, as well as assignments, the textbook, etc. Students should be checking Blackboard often for announcements and updates, and to access the text. Blackboard utilizes students' SPC email, and students should be checking their SPC email regularly. While there is an app for blackboard access, some features in the mobile app are suppressed. Students should plan on accessing blackboard from a computer at least a few times each week.
- Gradescope: The gradescope app will be used to submit most, if not all assignments. It can be downloaded from both Google Play and iOS app stores.

**Class Attendance:** Attendance for this course will be assessed by participation. Missing more than 2 exams, or any 5 assignments may result in being dropped from the course.

**Assessment:** Grading will be done according to the standard 10 percent scale (i.e. 100% - 90% is an A, etc.) with assignments weighted according to the following:

Assignments:	15%
Exams	60%
Final Exam	25%

**Assignments:** Assignments serve as homework, and should be worked on daily. Assignments will be given weekly, and each assignment is found in the current week of course content. Please see the document "How to: Writing Mathematically (showing your work)" to learn how written work should be submitted. Graphs, diagrams, tables, and other visual aids are welcome and encouraged wherever appropriate, and should be created with care. Written arguments (i.e. reasoning with descriptions and statements of theorems and other properties) are also encourgaed, and should be done in complete sentences.

For each assignment, submit all notes over the related lesson as well as the worked assignment problems to Gradescope before the due date. Please note that as long as the due date has not passed, you may resubmit the assignment if you forgot anything.

**Exams:** There will be four midterm exams given during this course, as indicated in the course calendar. Your local faculty member/facilitator will coordinate your exam time with you to proctor the exam. They will administer the exam and collect your work at the end. During the exam all computers, mobile devices, notes and external aides will be prohibited. *Makeup exams are not given*.

**Final Exam:** The final exam is comprehensive, and a required part of the course. Failure to take the final exam results in an automatic F. The Final Exam must be submitted no later than Wednesday, May 8, 5 pm

**Extra Credit:** Extra Credit assignments are not offered in this course. Occasionally bonus problems may appear on exams.

Week	Topics	Due Dates
		Assignments due by 11 pm on Friday of the
		corresponding week.
Week 1	Definition of Limit	
1/13 - 1/17	Limit Computation	Assignments 1 and 2
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Week 2	Continuity	
1/20 - 1/24	Definition of Derivative	Assignments 3 and 4
Week 3	Derivative Rules	Assignment 5
1/27 - 1/31	Exam 1 (2.2, - 2.4, 3.1 - 3.4, 4.6)	Exam 1
Week 4	Derivatives of Trigonometric Functions	Assignments 6 and 7
2/3 - 2/7	Chain Rule	
Week 5	Derivatives of Inverse Functions	Assignments 8 and 9
2/10 - 2/14	Implicit Differentiation	
Week 6	Exponential and Logarithmic Derivatives	Assignments 10 and 11
2/17 - 2/21	Related Rates	Exam 2
	Exam 2 (3.5 - 4.1)	
Week 7	Linear Approximations	Assignments 12 through 14
2/24 - 2/28	Mean Value Theorem/Extreme Value Theorem	
Week 8	Curve Sketching	Assignments 15 and 16
3/3 - 3/7	L'Hopital's Rule	
Week 9	Optimization	Assignment 17
3/10 - 3/14	Exam 3 (4.2 - 4.7)	Exam 3
Week 10	Anti-Derivatives	Assignments 18 and 19
3/24 - 3/28	Definite Integrals	
Week 11	Fundamental Theorems of Calculus, Net Change	Assignments 20 through 22
3/31 - 4/4	Integration by Substitution	
Week 12	Exponential, Logarithmic,	Assignment 23
4/7 - 4/11	and Inverse Trigonometric Integrals	
Week 13	Area Between Curves	Assignment 24
4/14 - 4/18	Exam 4 (4.10 - 5.7)	Exam 4
Week 14	Volumes of rotations	Assignment 25
4/21 - 4/25		
Week 15		
4/28 - 5/2	Hyberbolic Functions	Assignment 26
Week 16	Final Exam	
5/5 - 5/8		Final Exam due Wednesday, May 9.