

MATH 1C: Calculus 3

Section 7220: TTH 5:00pm-7:00pm, Shuhaw 1731

Santa Rosa Junior College, Spring 2019

Instructor: Greg Morre, PhD Mathematics, UNM	Office: Shuhaw Hall, 1726
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Office Hours: MW 3:30pm-4:00pm, 8:30pm-9:00pm	TTH 12:00pm-1:00pm, 3:00pm-3:30pm, 4:30pm-5:00pm, 7:00pm-7:30pm

Topics: Multivariable calculus including partial differentiation and multiple integration, vector analysis including vector fields, line integrals, surface integrals, and the theorems of Green, Gauss and Stokes. Exploration of specific topics using Mathematica.

Pace of Class: This is a 4 unit course. This means you need to have at least 8 to 12 hours outside of class per week to devote to homework and study for this course.

Canvas: Internet access is important. Information regarding the reading, homework, projects, the schedule and more will be posted on Canvas.

Textbook (required): CALCULUS Early Transcendentals (Eighth edition), James Stewart, ISBN: 9781305616691.

Participation: Students are encouraged to ask questions and answer questions I ask. It is not a competition however. If during a class you have already responded to a question, let other students have a chance to answer the next question. During lecture exercises will be assigned. You should attempt these exercises and help your fellow students when you can. Class will occasionally include group activities. Work with your group in a courteous and helpful manner.

Attendance: It is very important that you attend and are on time for **every** class. However, if you do miss a class you are responsible for all announcements and material covered in your absence. Students who have missed over 10% of class time or miss two tests may be dropped from the course.

Reading: Check the schedule on Canvas and read each section before we cover it in class.

Calculator: No calculators will be allowed on any of the exams.

Cell Phone Policy: Cell phones must be **turned off** at the beginning of class, put away and remain so for the duration of class. Students who do not comply will be asked to leave for the remainder of that class! On some occasions students may be allowed to use a phone to photograph the board.

Other Electronic Devices: Laptops, headphones, and other electronic devices are not to be used during class. Tablets may be allowed for legitimate note-taking. Additional rules may be added for any electronic devices not mentioned in this syllabus.

Communication: Please check Canvas for the updated schedule and announcements before each class. If any student needs to be contacted individually it may be through Canvas or via email. Don't forget to check your email.

Important Note: Notes of any kind, 3x5 cards, books, cell phones, computers, headphones etc. are not allowed on any exams.

Drops: If a student wishes to drop the course it is the students responsibility to do so. A student who stops attending will not necessarily be dropped from the course.

Class Conduct: You are expected to act in a mature and courteous manner toward me and your classmates. Students are expected to conduct themselves in a manner which reflects their awareness of common standards of decency and the rights of others. Interference with the Districts mission, objectives, or community life shall be cause for disciplinary action. Please refer to <https://student-conduct.santarosa.edu/code-conduct-0> for more information.

Academic Integrity: Cheating on exams and quizzes will not be tolerated! For more information, please see the link <https://rightsresponsibilities.santarosa.edu/academic-integrity>.

Students with Disabilities: If you need disability related accommodations for this class, such as a notetaker, test-taking services, special furniture, etc., please provide the Authorization for Academic Accommodations (AAA letter) from the Disability Resources Department (DRD) to the instructor as soon as possible. You may also speak with the instructor privately during office hours about your accommodations. The terms of this syllabus may be altered to accommodate students with disabilities. If you have not received authorization from DRD, it is recommended that you contact them directly. DRD is located in Bertolini Student Center on the Santa Rosa Campus, and Jacobs Hall on the Petaluma Campus.

A Word of Advice: If you are struggling with the material, please please please come and see me! If my office hours do not fit your schedule you can make an appointment. Also, there is plenty of **free extra help** available on campus.

Extra Help Resources: Aside from my office hours, you have the following available to you:

- **Computer and Mathematics Lab** in Shuhaw Hall, room 1733 and 1735.
- **Santa Rosa Campus's Tutorial Center** on the first floor of library

Furthermore, for any student who has declared a Calculus based Science Major, you can join MESA, located in Bertolini. They have tutoring services and so much more!

Library Reserve Desk: Copies of the text are available at the Doyle Library at the reserve desk. The call number is QA303.2 .S7315 2016.

Grade: The grade for this course is based upon the following categories with the weight of each category given as a percent:

Homework (15%): Assignments can be found on Canvas. Follow the **written homework guidelines** which can also be found on Canvas. Assignments due on Thursday must be handed in by the beginning of class on Thursday. Assignments due on Thursday must be handed in by 12:00 pm that Friday. Homework assignments will not be accepted after this.

Mathematica Projects (10%): Guidelines for the mathematica projects can be found on Canvas. Mathematica is a computer algebra system which is available in the Computer and Mathematics Lab, Shuhaw 1735. There will be 3 – 4 such assignments.

Take Home Quizzes (10%): There will be approximately 4–6 take home quizzes throughout the semester. Take home quizzes are due at the beginning of class the day after they are assigned. There are no make-up quizzes. Take home quizzes must be handed in no later than 24 hours after the assignment is due. Take home quizzes will not be accepted after this.

Exams (50%): There will be three exams. One following each chapter. There are no make-up exams.

Final Exam (15%): The final exam is on Tuesday, May 22 from 4:00pm-6:45pm. It is cumulative.

Grading Scheme: The grading scheme (using interval notation) is as follows:

A: [90%, 100%], B: [80%, 90%), C: [70%, 80%), D: [60%, 70%), F: [0%, 60%)

Missed Assignments: Students may miss handing in homework, quizzes and even tests due to unforeseen circumstances such as illnesses, bereavement, car problems etc. In order to mitigate this:

- the 3 lowest written homework scores will be dropped,
 - the lowest quiz score will be dropped, and
 - the lowest of the final exam percentage or homework percentage the lowest exam score if this improves the student's grade.
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Syllabus Changes: I reserve the right to change the syllabus at any point of time during the semester! However, I will make every effort to make as few changes as possible.

Course Outline:

https://portal.santarosa.edu/SRWeb/SR_CourseOutlines.aspx?mode=1&CVID=24999&Semester=20147

Math 1C Spring 2019 Tentative Schedule			
Date	Day	Topic	Sections
1/15/19	T	Introduction, Functions of Several Variables	14.1
1/17/19	TH	Functions of Several Variables, Limits and Continuity	14.1, 14.2
1/22/19	T	PDA Day, no class	
1/24/19	TH	Limits and Continuity	14.2
1/29/19	T	Partial Derivatives	14.3
1/31/19	TH	Tangent Planes and Linear Approximations, MP1	14.4
2/5/19	T	The Chain Rule, THQ 1	14.5
2/7/19	TH	Directional Derivatives and the Gradient Vector	14.6
2/12/19	T	Maximum and Minimum Values	14.7
2/14/19	TH	PDA Day, no class	
2/19/19	T	Lagrange Multipliers	14.8
2/21/19	TH	Double Integrals Over Rectangles	15.1
2/26/19	T	Double Integrals Over General Regions	15.2
2/28/19	TH	Exam 1, (14.1-14.8)	
3/5/19	T	Double Integrals In Polar Coordinates	15.3
3/7/19	TH	Applications of Double Integrals*, Surface Area, MP2	15.4*, 15.5
3/12/19	T	Triple Integrals	15.6
3/14/19	TH	Triple Integrals, THQ 2	15.6
3/19/19	T	Spring Break, no class	
3/21/19	TH	Spring Break, no class	
3/26/19	T	Triple Integrals in Cylindrical Coordinates	15.7
3/28/19	TH	Triple Integrals in Spherical Coordinates	15.8
4/2/19	T	Change of Variables in Multiple Integrals	15.9
4/4/19	TH	Vector Fields	16.1
4/9/19	T	Line Integrals	16.2
4/11/19	TH	Exam 2, (15.1-15.9)	
4/16/19	T	The Fundamental Theorem of Line Integrals	16.3
4/18/19	TH	Green's Theorem, MP3	16.4
4/23/19	T	Curl and Divergence, THQ 3	16.5
4/25/19	TH	Parametric Surfaces and Their Areas	16.6
4/30/19	T	Surface Integrals	16.7
5/2/19	TH	Stokes' Theorem	16.8
5/7/19	T	The Divergence Theorem	16.9
5/9/19	TH	Catch-up/Summary	16.10
5/14/19	T	Exam 3, (16.1-16.9)	
5/16/19	TH	Catch-up/Review	
5/21/19	T	Final Exam, 4:00pm-6:45pm	