

TIME : M-W 7:15 – 9:20 AM

ROOM : V-303

TEXTBOOK : *Calculus* 8th edition; James Stewart; Cengage Learning

INSTRUCTION : The usual class meeting will consist of working homework problems that gave you difficulty, lecture, and discussion. At the beginning of each class meeting, please put a list of homework problems you would like me to do on the far left side of the board. This allows me to come in and immediately begin.

HOMEWORK : Homework will be assigned each class meeting. However, I do not collect homework. As in any math course, homework is an essential part of the learning process. Just as an athlete must practice his sport in order to become proficient, you must be willing to put in the time practicing the problems in order to become proficient in this subject. For most students, that means at least 2 hours out of class for every hour in class.

QUIZZES : Quizzes will be given each Thursday at the beginning of the class. Please do not be late, as you will not be given any more time. The quizzes will be approximately 15 – 20 minutes in length, and you will be told the class meeting before which sections the quiz will cover. Each quiz contains problems that are similar to but not the same as the assigned problems from homework. The two lowest quizzes will be dropped. **There are no make-ups on quizzes.**

EXAMS : There will be 5 exams given during the semester. Each exam is worth 100 points. You may make up exams if you give me advance notice that you will be missing a class meeting when a test will be given.

GRADES : Grades will be assigned based on total points accumulated:

Quizzes	100 pts
Exams	500 pts
Final	<u>200 pts</u>
Total	800 pts

The scale I will use is as follows:

720 – 800 pts (90% - 100%)	A
640 – 719 pts (80 % - 90 %)	B
560 – 639 pts (70% - 80%)	C
80 – 559 pts (60% - 70%)	D
BELOW	F

ATTENDANCE : I will be taking attendance each class meeting. Mathematics is a subject that requires participation. During the class meeting as I lecture, I will often give hints as to how to study more effectively or how to solve problems in a quicker way. If you are not present for the lecture, you will be missing out on many helpful ideas not to mention the core content. It has been my experience that students who regularly do not attend class usually fail or withdraw. Therefore, if any student misses more than 8 hours of class (that is 4 class meeting) during the course of the semester, you may be dropped by me. Be aware that leaving class early constitutes an absence. Sometimes, however, some students fall through the cracks and I miss them. If it is your intention to withdraw from the course, do not assume that I have withdrawn you. You must check with the records department as to your status for the course. If I have withdrawn you, great! But, if I haven't, you will be able to initiate the process yourself.

E-MAIL : lsowinski@sierracollege.edu .

OFFICE HOURS : T W 9:30 – 10:00 AM in room v-329

ELECTRONIC DEVICES: Cell phones and other electronic devices have become a natural part of our lives. While they are a wonderful too, they can be very distracting in a class room environment. Please do not use your phone or other electronic device while in class unless you are using the device as a note taking tool and have cleared it will me beforehand. If I see you using your cell phone for any reason during class, I will give you one warning. If I see you using these devices after you have been given a warning, I will be asking you to give me your phone or until the end of class. If there is an emergency and you are expecting a call regarding it, let me know. You will be instructed to leave your phone on your desk in vibrate mode, and if the call comes in, please leave the room quietly and only answer it after you are in the hallway.

COURSE OUTCOMES

1. Compute vector quantities such as the dot product and the magnitude of a vector;
2. write the equation of a line or a plane in space using vector methods;
3. solve problems dealing with the motion of a particle in the plane or in space using vectors methods;
4. calculate the length of a curve in 3-space;
5. graph and identify quadric surfaces;
6. sketch functions of two variables, level curves of functions of two variables, and level surfaces of functions of three variables;
7. find maximum and minimum values of functions of two variables and solve applied max/min problems;
8. compute partial derivatives of functions of more than one variable;
9. solve maximum and minimum problems using Lagrange multipliers;
10. evaluate double and triple integrals using rectangular, polar, cylindrical, or spherical coordinates;
11. compute area, volume, centers of mass, and moments of inertia using double and triple integration;
12. evaluate line integrals and solve related applied problems;
13. evaluate line integrals and areas using Green's Theorem;
14. compute the divergence and curve of a vector field;
15. compute the area of a parametric surface;
16. evaluate surface integrals using Stokes' Theorem and the Divergence Theorem; and
17. solve complex calculus problems using algebra and trigonometry skills

STUDENT LEARNING OUTCOMES:

CSLO 1 Calculate partial derivatives and multiple integrals of multivariable functions.

CSLO 2 Translate, model, and solve applied problems utilizing vector functions, partial derivatives, Lagrange multipliers, Second Derivative Test, Green's Theorem, Stokes' Theorem, and the Divergence Theorem.

CSLO 3 Utilize graphs of multivariable functions to set up, evaluate, and solve double and triple integrals; including rectangular, cylindrical, and spherical coordinates.

CSLO 4 Logically present clear, complete, accurate, and sufficiently detailed solutions to communicate reasoning and demonstrate the method of solving problems

TITLE IX REPORTING:

As an instructor, one of my responsibilities is to help create a safe learning environment for my students and for the campus as a whole. Under Title IX as a member of the college community, I have the responsibility to report any instances of sexual harassment, sexual or domestic violence, and/or other forms of prohibited discrimination. If you would rather share information about sexual harassment, sexual violence or discrimination to a confidential counseling employee who does not have this reporting responsibility, please let me know so that I can get you in contact with them.