

SCUPI – Math0235 Calculus 3
Spring Semester, 2018, Section 3

INSTRUCTOR: Dr. Yun-zhi Zou; **OFFICE:** 4-221; **EMAIL:** zouyz@scu.edu.cn

OFFICE HOURS: W: 4:30 – 6:00 pm at Rm 4-221, or by appointment.

LECTURES: Mon & Wed: 1:50pm – 4:30 pm at Rm 4-216.

TEXTBOOK: *Briggs, Cochran, Lyle: Calculus, Early Transcendentals 2nd ed.*

DESCRIPTION: This is the second part of two-part calculus sequence for students in SCUPI. Topics are mainly focus on multi-variable calculus which include vector and the geometry of space, functions of several variables, multiple integrals and vector calculus.

COURSE OBJECTIVES: Students will develop a good understanding of three dimensional vectors, the geometry of space. Students will acquire basic skills needed to find and apply partial derivative to solve a wide range of problems. Students will acquire skills on multiple integrals and vector calculus as well. Evaluation of students will be determined, quizzes, homework and tests.

LEARNING OUTCOMES FOR THIS COURSE:

- 1) Students will develop a basic understanding of two and three-dimensional vectors, the geometry of the three-dimensional space, equations of lines and planes in three dimensions, and be able to apply these concepts when working applied problems.
- 2) Students will learn derivatives and applications for functions of several variables.
- 3) Students will various techniques of multiple integration.
- 4) Students will learn vector calculus including stokes and divergence theorem.

GRADE: The final grade will be based on the **score**. The score is a number determined by

Homework: 10% Quizzes: 20% Class participation: 10% Midterm Exams: 20% Final Exam: 30%

The final letter grade will follow SCU scheme.

EXAMS: The midterm exam is a 90 minute exam and the final exam duration is 2 hours. Tentative Dates are given in the table below. Each major test will be cumulative with more emphasis on the material since the previous test. The final exam will be comprehensive. There is **NO** Make up for all the quizzes and exams.

Tentative exam dates are the following:

Midterm: The first week of April	FINAL: First week of May
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CLASS PARTICIPATION You are expected to come to my calculus class on time and abide all rules that required by this university. You are also expected to work on this calculus course proactively. This includes but not limited to ask / answer questions, team work etc.

QUIZZES: On lines quizzes will be given on some lecture days.

HOMEWORK: There will be a graded homework assignment given on each section covered. They must be completed before each expiration date and time. **No extension will be given.** For each test period you will be allowed to drop one homework grade. The grade will be calculated by averaging the remaining homework scores. **Homework can be worked on until all questions are correct. Be aware that some of the homework problems do not have the learning aids. You can select similar question for any question that you miss and try again until you get it correct.**

CLASSROOM RULES: Electronic devices including but not limited to iphone, smartphone, ipod, ipad, pc are **NOT** allowed, except for course work.

ATTENDANCE: You are expected to attend all the classes; however, I will not check the attendance. A student who misses a class is responsible for finding out what was covered in the class. Remember there are no make ups all grades related activities.

MAKE-UP POLICY: **No makeup work will be allowed.** The dropped grade in each test period is to account for any missed assignments due to illness or any other circumstances.

CODE OF ACADEMIC CONDUCT: All students in attendance at the Si Chuan University are expected to

be honorable and to observe standards of conduct appropriate to a community of scholars. The University expects from its students a higher standard of conduct than the minimum required to avoid discipline. Academic misconduct includes all acts of dishonesty in any academically related matter and any knowing or intentional help or attempt to help, or conspiracy to help, another student. The Academic Misconduct Disciplinary Policy will be followed in the event of academic misconduct.

NON-ACADEMIC MISCONDUCT: All cell phones and other electronic devices are to be turned off and out of sight while you are in the classroom. All newspapers and other materials not related to the class are to be put away once class begins. Operating these devices and reading unrelated materials while in class is disrespectful of your instructor and fellow classmates. If you fail to abide by this rule, the instructor has the right to confiscate the device or materials. If you have an emergency and need to have your phone turned on during class, ask your instructor for permission

LOGIN (1) Go to the website: www.pearsonmylabandmastering.com/global/

INFO: (2) Click on Student's "Register". After that you follow the instructions to register.

(3) You will need our **COURSE ID**: _____ and an access code given below

(4) Your access code is:

(5) Please create your login name as your last name followed by your last four digits of your student ID. For example: **smith2011@stu.scu.edu.cn**

(6) Set your Password.

MATERIAL COVERED: The sequence of the sections covered in this class is:

March

5th limits and continuity

7th partial derivative, total differential

12th Chain Rule,

14th Directional derivatives, gradient

19th tangent plane approximation, Maximum/minimum

21st Lagrange multipliers

26th Double integral over rectangular region

28th polar region, triple integrals

April

2nd Cylindrical /spherical coordinates

4th Change of Variables in multiple integrals

9th vector fields, line integrals

11th Green's theorem / conservative fields

16th Divergence and curl

18rd surface integrals

23th stokes' theorem

25th divergence theorem