

MATH 150-4: Calculus I Spring 2012

Training sessions: MWF 10-11:10am, [PS](#) 130

Course resources: <http://www-rohan.sdsu.edu/~vadim/math150.htm>

Blackboard: <https://blackboard.sdsu.edu/webapps/login/>

Instructor	email	office	office hours
Vadim Ponomarenko	vadim@sciences.sdsu.edu	GMCS 511	Tue/Thu 9:30-10:45, appt.
Sarah Elgraoui	elghraou@rohan.sdsu.edu	GMCS 528	Mon 11:30-12:30
David Lewis	lewisd@rohan.sdsu.edu	GMCS 528	Fri 11:15-12:15
Carlos Prieto	prietogo@rohan.sdsu.edu	GMCS 528	Wed 12-1

Diagnostic Exam 1: Monday, February 27

Diagnostic Exam 2: Monday, April 2

Final Exam: Friday, May 11, 10:30-12:30

Overview:

This course will follow the [inverted](#) model of instruction. In the standard model, students begin their learning in class by listening to lectures, then complete their learning at home by training on exercises. In the inverted model, students begin their learning at home via a variety of resources, then complete their learning in class by training on exercises.

The benefits of the inverted model include the following. First, students will receive expert guidance at the most critical stage of their learning, the training phase. Second, students can customize their initial learning phase to best suit their individual needs and learning style. Lastly, students get frequent and meaningful feedback on their training, which helps them take ownership of the learning process.

Course Materials:

This course has no required materials. In the 'course resources' link above links are given to a large collection of materials. They include textbooks, lectures, and many tutorials of various lengths. Students are free to use additional materials as they like. Students are encouraged to use whichever materials best aid their learning. As desired, they may read books, watch lectures and tutorials, work exercises, discuss with their classmates. Students are encouraged to ask questions on Blackboard. Students also have opportunity to ask questions in class and in office hours.

Learning Objectives:

Students will learn the differential and integral calculus, as well as tools necessary for their understanding of these topics. For a detailed, day-by-day list of topics, see the online course resources.

The first exam will cover some precalculus topics such as functions, as well as limits and continuity. The second exam will cover the differential calculus. The final will be cumulative, but with extra emphasis on the integral calculus and applications of the differential calculus.

Course Mechanics:

Students are expected to come to class, on time and prepared, after completing their initial learning phase at home. This consists of watching videos, reading textbooks, and working simple exercises.

Class time is spent training the material via a sequence of increasingly challenging exercises, under the guidance of the instructors. One of these exercises will be collected at the end of class (no later) and used for grading purposes. To receive full credit students must print their name in large letters as “First LAST” in the northeast corner of their submissions.

Missed training sessions cannot be made up under any circumstances. Students are encouraged to work on the training exercises in small groups, but each student must write and submit his or her own solution for grading. As a reward for engaging in training, students will receive a minimum grade of 50%, even if they are unsuccessful in solving the problem.

After training sessions, students are expected to carefully read over their work, and compare with the solutions they will receive. They are expected to complete at home any unfinished exercises, and to correct any mistakes. Training therefore consists of pre-class, in-class, and post-class components.

Academic Dishonesty:

The following actions are forbidden: to sign someone else in (to avoid tardiness); to submit a training solution for someone else; during exams, to use unauthorized materials or to communicate in any way (except to the proctor). Violations of this policy will result in, at minimum, a course grade reduction and a report to the SDSU Academic Dishonesty Office.

Attendance:

Students are expected to attend every training session, on time, and to prepare in advance. The lowest three trainings scores will be dropped, to account for unexpected emergencies. Makeup exams will be given only for documented emergencies.

The C Bargain:

Students that earn less than a C on the first exam are urged to take advantage of the C bargain. For eligibility, students require: (1) excellent attendance, meaning at most 2 tardies or absences between the first exam and the end of the course; and (2) a grade of C or better on the final exam. Students that meet these requirements will get at least a C for their course grade.

Grading:

The training scores (after dropping 3) will be combined to count as 20% of the course grade (0.5% each). 10% of the course grade will be based on timely attendance. The two diagnostic exams will be worth 15% of the course grade each. Lastly, the final will be worth 40% of the course grade. The minimal grade requirements are as follows:

A	A-	B+	B	B-	C+	C	C-	D+	D	F
92.0	90.0	88.0	82.0	80.0	78.0	72.0	70.0	68.0	62.0	0