Math 227 - Calculus III

Spring 2016; Sections 101 and 102

Instructor. Dr. Armin Straub
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Course website. http://math227.straub.link

Office. ILB 313

Office phone. (251) 460-7262 (please use e-mail whenever possible)

Office hours.

MW, 9:00am-10:00am and 11:00am-noon,

R, 9:20am-9:50am and 10:50am-12:20pm, or by appointment

Class schedule.

Section 101 meets MWF, 8:00-8:55am, in ILB 360, and R, 8:25-9:15am, in ILB 370. Section 102 meets MWF, 10:10-11:00am, in ILB 350, and R, 9:55-10:45am, in ILB 350.

Overview. This course is a continuation of MA 126. Topics include vectors and the geometry of space; vector functions and functions of several variables; partial derivatives; local linearity; directional derivative and gradient; differential of a function; chain rule; higher order partial derivatives; quadratic approximation; optimization of functions of several variables; parametric curves and surfaces; multiple integrals and their applications; vector fields; line and surface integrals; vector calculus.

Textbook. University Calculus: Early Transcendentals, 2nd edition, by Joel Hass, Maurice D. Weir and George B. Thomas Jr. (Addison-Wesley, 2012)

Course format. Web-enhanced.

Pre-requisite. C or better in Calculus II (Math 126).

Grading

Exams. There will be two in-class midterm exams and a comprehensive final exam. Notes, books, calculators or computers are not allowed during any of the quizzes or exams. Our **tentative** exam schedule is:

- Midterm Exam 1: Friday, February 19
- Midterm Exam 2: Friday, April 1
- Final Exam: Monday, May 2 (Section 101: 8:00-10:00am, Section 102: 10:30am-12:30pm)

Quizzes. Short quizzes will be given each week. The main purpose is to make sure that no one gets lost, and it is a way for you to monitor your progress.

Homework. Homework will be assigned after each class. It will not be collected; instead, the problems for the quizzes will be drawn from the assigned homework.

Grades. Your grade will be based on the total sum of your scores on the midterm exams, quizzes, and the final exam.

- Midterm Exams: 42% in total
- Quizzes: 30% in total (lowest score dropped; or, lowest two dropped if attendance is good)
- Final Exam: 28%

The resulting numerical score is then translated to your semester grade as follows: [90,100]: A, [80,90): B, [70,80): C, [60,70): D, [0,60): F.

Make-up policy. There will be no make-ups for missed midterms or quizzes. Instead, a missed quiz is dropped if a valid excuse is presented within a week (these dropped scores are in addition to the lowest quiz score being dropped anyway). If a midterm is missed and appropriate documentation (e.g. a doctor's note) is presented within a week, then the corresponding exam score will be replaced with the final exam score. Otherwise, the score for the missed exam will be recorded as zero.

Online grades. Your grades will be posted to Sakai. Please check your grades weekly at https://ecampus.southalabama.edu and report any discrepancies within two weeks.

Dropping. The final drop date is Friday, April 1. Please speak with me (or your advisor) before making a final decision to drop. Ideally, talk to me as soon as you are getting behind, so I can help you complete the course successfully.

Course organization

Online material. This syllabus as well as relevant information and material for this course can be found at our course website.

Attendance. Attendance of all lectures is mandatory and roll will be taken. You are responsible for finding out what you missed on days when you were unable to attend.

Let X be the number of times you miss class without excuse throughout the semester.

• If $X \leq 3$, then your lowest two quiz scores will be dropped.

(Otherwise, only a single score is dropped.)

• If X > 6, then your overall semester grade will be decreased by a full letter grade.

Students are expected to be on time in class. Frequent late arrivals of a student to the classroom will be considered a disruption and a penalty may be applied in this circumstance.

Cell phones and other electronic devices. The use of cell phones and other electronic devices, such as laptops, is not acceptable during lecture and is reserved for emergencies.

Tutoring lab. The department offers a tutoring lab in room ILB 235 to all students taking mathematics and statistics classes. There is no lab fee. Please check the bulletin board outside ILB 235 for details.

Dates of interest.

- Monday, January 18: Martin Luther King Holiday
- Monday-Friday, March 14-18: Spring Break
- Friday, April 1: Last day to drop
- Thursday, April 28: Last day of classes
- Monday-Thursday, May 2-5: Final examinations

Further notices

Changes. Not all classes progress at the same rate. Thus course requirements and policies might have to be modified as circumstances dictate. You will be given written notice if the course requirements and policies need to be changed.

Goals and objectives. The main objective of this course is for students to develop a good conceptual and computational understanding of the basic ideas of integral calculus and its applications.

JagSuccess. JagSuccess is a program intended to help students be successful in 100 and 200 level courses. If you are not doing well, you will receive an email alert with further instructions during the first thirteen weeks of classes.

Academic disruption policy. The University of South Alabama's policy regarding Academic Disruption is found in *The Lowdown*, the student handbook:

 $\verb|http://www.southalabama.edu/lowdown/academicdisruption.shtml|$

Disruptive academic behavior is defined as individual or group conduct that interrupts or interferes with any educational activity or environment, infringes upon the rights and privileges of others, results in or threatens the destruction of property and/or is otherwise prejudicial to the maintenance of order in an academic environment.

Students are expected to be cordial, courteous and respectful of faculty members and fellow students.

Academic Conduct Policy. The University of South Alabama's policy regarding Student Academic Conduct Policy is found in *The Lowdown*:

http://www.southalabama.edu/lowdown/academicconductpolicy.shtml

The University of South Alabama is a community of scholars in which the ideals of freedom of inquiry, freedom of thought, freedom of expression, and freedom of the individual are sustained. The University is committed to supporting the exercise of any right guaranteed to individuals by the Constitution and the Code of Alabama and to educating students relative to their responsibilities.

- Disability accommodations. In accordance with the Americans with Disabilities Act, students with bona fide disabilities will be afforded reasonable accommodations. The Office of Special Student Services (OSSS) will certify a disability and advise faculty members of reasonable accommodations. If you have a specific disability that qualifies you for academic accommodations, please notify the professor and provide certification from the Office of Special Student Services. OSSS is located at 5828 Old Shell Road at Jaguar Drive, (251-460-7212).
- Online writing support. The University of South Alabama provides online writing tutoring services through SMARTHINKING, an online tutoring service. SMARTHINKING is available at http://services.smarthinking.com.

Welcome to Calculus!

...and please ask anytime if something is not clear to you.