Syllabus - Math 555 – Spring 2018

Instructor: Dr. Qingying Bu  E-mail: qbu@olemiss.edu
Office: Hume 311  Office Hours: T Th 9:00-11:30am, or by appointment
Class Time: M W 2:30-3:45pm  Location: Hume 109

Course contents and goals:

The Advanced Calculus (Math 555 and Math 556) is a two-semester course which covers the logical foundations of calculus. Math 555 covers the basic properties of real numbers (chapters 1-2), real-valued functions and the so-called $\varepsilon-\delta$ definition for the limit of real-valued functions (chapters 3-5), properties of continuous functions and uniformly continuous functions (chapters 6-8), properties of differentiable functions (chapters 9-12), and properties of Riemann integrable functions including the fundamental theorem of calculus (chapters 13-14).

This two-semester course is to train students to understand mathematical concepts and prove mathematical problems in mathematics language. We focus on proof problems rather than computation problems. After completing this two-semester course, a student should have ability to further study in mathematics.

Course grade:

1. There will be two midterm tests during the semester. Each test will count 100 points (the lower test grade will be replaced by the final percentage provided that this percentage is higher).
2. Homework sets counting a total of 100 points will be given throughout the semester.
3. The final examination is comprehensive and will count 200 points.

A: $\geq 93\%$,  A-: $\geq 90\%$,  B+: $\geq 87\%$,  B: $\geq 83\%$,  B-: $\geq 80\%$
C+: $\geq 77\%$,  C: $\geq 73\%$,  C-: $\geq 70\%$,  D: $\geq 60\%$,  F: $\leq 59\%$

Test Dates: to be announced in class.

Final Exam: 4:00pm, Monday, May 7.

Attendance Policy: Students are allowed two absences. Five points are deducted from the final point total for each absence above the limit. Attendance will be recorded daily. It is the student’s responsibility to make sure his/her attendance record is correct. Students who do not attend class within the first two weeks will be dropped automatically.
Policy:

1. Late homework is accepted, but ten percent points will be deducted and no later than one week.
2. Students must show all work on tests and the final exam in order to receive full credit.
3. Each student is responsible for all work missed due to absences.
4. If a test is missed for any reason, a grade of 0 will be given. There will be no make up tests given for any reason other than official university functions. Any student who must miss an exam because of an official university function may reschedule the test before the test is originally scheduled. This is the only rescheduling allowed.
5. An "I" grade will not be given without the permission of the Department of Mathematics.
6. Any student having three or more final examinations scheduled for the same day will arrange with the instructor to take the noon examination or the 7:30 p.m. examination on some other mutually satisfactory date.
7. Every student must take the final exam at the time scheduled. The only exceptions are those students affected by # 4 or # 6 above.

CALCULATORS: Your brain is a sufficient calculator in Math 555. Electronic calculators, cell phones, and ipods are prohibited on tests and quizzes.

ELECTRONIC DEVICES: All cellular phones, pagers, and other electronic equipment should be turned off during the class period, during movies, in churches, bookstores, restaurants, elevators, grocery stores, and especially while operating a motor vehicle.

Cheating: The following statement is the policy of the Department of Mathematics regarding cheating:

Offenses: Cheating on any exam or quiz, theft or attempted theft of exam questions, possession of exam questions prior to the time for examination, or the use of an illegal calculator on tests or quizzes shall all be offenses subject to appropriate penalties.

Penalties: The penalty for commission of any offense set out above is failure in the course and, subject to the approval of the Chancellor, dismissal or suspension from the University.

WITHDRAWAL DEADLINE: Friday, March 2.

After the Course Withdrawal Deadline, courses dropped will be recorded on University records and the W grade will be recorded if the student is not failing the course at the time of withdrawal; otherwise the grade recorded will be F. After the course withdrawal deadline, a student may drop a course only in cases of extreme and unavoidable emergency as determined by the academic dean; dropping a course after the deadline will not be permitted because of dissatisfaction over an expected grade or because the student is changing his/her major.

ACADEMIC NEEDS: It is the responsibility of any student with a disability who requests a reasonable accommodation to contact the Office of Student Disability Services (915-7128). Contact will then be made by that office through the student to the instructor of this class. The instructor will then work with the student so that a reasonable accommodation of any disability can be made.