MATH 403 - FALL 2011
CLASSICAL ANALYSIS I

Instructor: Professor Anna L. Mazzucato
Office: 324 McAllister
Phone: 863-2036
Email: mazzucat@math.psu.edu or alm24@psu.edu
Web page: www.math.psu.edu/mazzucat/ (Instructor page)
www.math.psu.edu/mazzucat/matH403 (Course page)

Office hours (subject to change): Friday 9:30 -11 AM
Wednesday 5 - 6:30 PM

Class meets:
Section 1, M W F 1:25 PM - 2:15 PM, in 014 Henderson Bldg (Schedule # 641881)
Section 2, M W F 12:20 PM - 1:10 PM, in 116 Osmond Lab (Schedule # 641884)

COURSE TOPICS: Topology of \( \mathbb{R}^n \), compactness, continuity of functions, uniform convergence, Arzelá-Ascoli theorem in the plane, Stone-Weierstrass theorem. A detailed list of course topics will be available on the course web page and/or ANGEL as time progress.

PREREQUISITES: You must have passed Math 312 to register for this course.

We will cover most of Chapters 2, 6, 7, and parts of Chapter 4 and 5 as needed. You will be asked to review the material in Chapter 1.

GRADING: The grade for the course is based on a total of 450 points, divided as follows:

- Midterms: 100 points each
- Final Exam: 150 points
- Homework: 100 points.

Grading will follow a ten-point base (i.e., 90-100% is A, etc). Your final score may be curved.

Note: Your grade will be based EXCLUSIVELY on the midterm and final examinations, and the homework. There is no ”extra-credit” work.

EXAMS: There will be TWO MIDTERM EXAMS and a COMPREHENSIVE FINAL EXAMINATION. The midterms will consist of two 75-minute evening exams, scheduled for Wednesday September 21 and Tuesday October 25, 6:30 -7:45
PM (subject to change). The final exam is scheduled for final exam week, December 12-15. Midterm CONFLICTS due to concurrent class or lab, or other University-sponsored activity, are to be communicated to me AT LEAST THREE WEEKS IN ADVANCE. Resolving conflicts with a final exam is responsibility of the students. Nor the instructor nor the Mathematics Department can schedule a conflict final exam. You should not plan to leave University Park before Saturday December 17. THERE WILL BE NO MAKE-UP EXAMS except for valid and documented reasons, such as illness. Make-up exams need to be requested IN ADVANCE. Personal business such as travel, employment, weddings, graduations, or attendance at public events such as concerts, sporting events, etc. are not valid excuses. If a student requests a make-up exam, but cannot document a valid reason, 20% of his/her grade will be automatically deducted.

HOMEWORK: There will be weekly homework assignments consisting in problems usually taken from the book. Homework assignments will be available on this course web page and through ANGEL. Solutions keys will be posted on ANGEL only. Homework will be assigned usually each MONDAY and collected the following Monday. Homework is due IN PERSON IN CLASS when due. Late homework will be accepted until graded assignments are returned to students. However, an automatic 20% reduction in homework grade will be applied for each day you are late. Your lowest homework score will be dropped.

COURSE SPECIFIC POLICIES: You MAY NOT use calculators, personal notes, or the textbook and NO COLLABORATION is allowed during examinations. You MAY (and are encouraged to) collaborate on the homework, but each student must turn in individually written solutions. The homework must be LEGIBLE, STAPLED together, and must BEAR THE SECTION NUMBER, DATE, AND ASSIGNMENT NUMBER.

Attendance to this course IS REQUIRED and I will randomly take attendance throughout the course. If you cannot attend class because of a valid excuse, such as illness or University-sponsored activity, you are to contact me IN ADVANCE and you are responsible for materials due, concepts covered, and assignments given. If you miss more than one class with no valid excuse, 20 points will be automatically deducted from your final grade. In particular, it will NOT BE TOLERATED that students arrive late, leave class early, or disrupt class in any way. I will make all efforts to start and finish class on time. Please, discuss any logistic problem with me.

Classroom seating: you may choose any seat you like in the classroom, but you are asked to keep the same seating throughout the semester.

Cell Phones must be TURNED OFF during ALL course activities. ANY electronic device (phones, ipods, ipads, computers, etc) used in class or that disturbs class activities, except when allowed by the instructor, will be CONFISCATED until the end of the class period.
COMMENTS: This course is difficult but of FUNDAMENTAL IMPORTANCE in Mathematics. In order to succeed in it, you MUST devote to it adequate time and attention, by coming to class regularly, keeping up with reading and homework assignments, taking advantage of office hours. If you do not understand one concept, you will NOT understand subsequent material. IT IS IMPERATIVE that you do not fall behind, but if you do, DO NOT WAIT. Come to office hours immediately to get extra help. Consistency in course work will pay off at the end of the course.

I expect that you read the textbook carefully after each class periods. In fact, it is best to read the book before coming to class. I WELCOME questions both during and outside class. ALL questions are very useful to both the instructor and the students. I also welcome general feedback about the course. An anonymous feedback form will be available on this course web page.

You are required to carefully read and understand this syllabus. Occasional changes in the syllabus or schedule will be available on the Instructor’s web page, or through ANGEL, or announced in class.

ACADEMIC INTEGRITY: All Penn State policies regarding ethics and integrity apply to this course. For more information, see:
http://www.science.psu.edu/academic/Integrity/index.html