

MA 111-009

INTRO TO CONTEMPORARY MATHEMATICS

FALL 2018

UNIVERSITY OF KENTUCKY

T/R

9:30-10:45AM

CB 338

Instructor Information:

Instructor: Amanda (Amy) Green
Office: Patterson Office Tower 951 (POT 951)
Email: mrs.amy.green@uky.edu ← BEST METHOD OF CONTACT!
Office Hours: Tuesday & Thursday: 11:00am - 12:30pm, POT 951
Other times available by appointment.

Undergraduate Assistant: Audrey Sterpka , email: audrey.sterpka@uky.edu, office hours: TBA @ Mathskeller

Class Time and Location: Tuesday & Thursday: 9:30 - 10:45am, Classroom Building (CB) 338.

Required co-requisite course: A&S 121-001 or A&S 121-002.

Course Webpage: CANVAS: MA 111-009 Fall 2018

Suggested Textbooks: If you would like to have references beyond the notes provided in class, here are a few suggestions. Be aware that some notation and terminology might differ, but the explanations and examples can be a great resource.

1. *Math in Society* by David Lippman: FREE ONLINE <http://www.opentextbookstore.com/mathinsociety/>
2. *Excursions in Modern Mathematics* by Peter Tannenbaum; any edition.
3. *For All Practical Purposes* by COMAP; any edition.
4. Website for the MA 111 course coordinator (copies of lecture slides/notes):
<http://ms.uky.edu/~ndng224/MA111/>

Course Goals:

1. To expose students to a variety of mathematical topics, many of which they would never see in a traditional algebra-based math class.
2. To encourage students to persist in solving problems and to develop an appreciation for the beauty of mathematical solutions.
3. To recognize the value of mathematics in solving a variety of practical (and fun) problems in society and culture.

Student Learning Outcomes: This course will be an introduction to some modern mathematical methods in application to real life problems. It is expected that by the end of the semester, students will acquire an informal understanding of a variety of new mathematical methods and will be able to appreciate their power and beauty. By the end of the semester, students should be able to demonstrate a proficiency in the application of mathematical knowledge for modeling solutions to questions drawn from real life.

Grading:

You will be evaluated in this course in the areas below, weighted by the given percentages.

Participation	15%
Project	10%
Homework	15%
Mini-Exams (3 out of 4 best scores)	15% (5% each mini-exam)
Exams (3 of the 4 best scores)	45% (15% each exam)
TOTAL GRADE POSSIBLE	100%

Your overall letter grade will be based on the following percentages (rounded to the nearest whole percent.)

A 90% - 100%	B 80% - 89%	C 70% - 79%	D 60% - 69%	E 0% - 59%
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Note: Students will earn the same letter grade for co-requisite courses: MA 111-009 and A&S 121-001/002. For details about A&S 121, please refer to the A&S 121 syllabus.

Attendance & Participation:

This portion of your grade will be earned by *attending class on a regular basis (without arriving late or leaving early)*, completing in-class assignments, following the course policies regarding technology usage, and actively participating in the lesson. You will often be allowed (and encouraged) to work in groups during our class meetings.

Math is not a spectator sport!

Attendance is quite useful to your success in this course.

Project:

This portion of your grade will be earned by completing a written project. I will go into more detail about the project in the middle of the semester.

Homework:

This portion of your grade will be earned by both completing individual online assignments via WeBWorK outside of class and a few "old-fashioned" paper assignments. The online assignments will be assigned on a weekly basis and a link for WeBWorK can be found on our CANVAS page. Homework deadlines will be announced in class and on CANVAS.

Mini-Exams:

We will have a mini-exam midway through each of the four topics we cover. They are designed to give you an idea of the progress that you are making with the material. We will spend 20-25 minutes on mini-exam days taking the mini-exam itself, then cover new material for the rest of the day. At the end of the semester, your grade is calculated by your HIGHEST THREE mini-exam scores.

Exams:

We will have four exams throughout the semester, one for each of the topics we cover. The exams will be DURING CLASS. The final exam is the fourth topic exam and is NOT cumulative. At the end of the semester, your grade is calculated by your HIGHEST THREE exam scores.

Important MA 111-009 Dates: (tentative)

- Thursday, September 6: Mini-Exam #1
- Thursday, September 20: Exam #1
- Thursday, October 4: Mini-Exam #2
- Thursday, October 18: Exam #2
- Tuesday, October 30: Mini-Exam #3
- Tuesday, November 8: Exam #3
- Thursday, November 29: Mini-Exam #4
- Tuesday, December 11: Exam #4 (FINAL EXAM) @ 10:30am - 12:30pm CB 338 (same room)

Important Semester Dates:

- Wednesday, August 22: First day of classes
- Tuesday, August 28: Last day to add a class
- Monday, September 3: Labor Day (ACADEMIC HOLIDAY – NO CLASSES)
- Wednesday, September 12: Last day to drop a class without receiving a grade
- Monday, October 15: Midterm of 2018 Fall semester
- Friday, November 2: Last day to withdraw from a class
- Wed-Sat, Nov. 21-24: Thanksgiving Holiday (NO CLASSES)
- Friday, December 7: Last Day of Classes
- Mon-Fri, Dec.10-14: Final Examinations
- Friday, December 14: End of 2018 Fall semester

NOTE: A student who drops a class on or before September 12th, will receive no grade. A student who withdraws after September 12th, will receive a grade of W. After November 2nd, no student will be allowed to withdraw unless his/her dean determines that unusual circumstances merit the withdrawal.

Technology Usage: While I believe there is a vital role that technology can play in education, technology usage during classes has been shown to decrease student productivity, retention of information, and overall classroom engagement – and that is not just for the student using the technology! Students who can see you using your phone or laptop during class are also distracted easily. It can take up to FIVE minutes for a student to regain the same level of focus they had before the distraction. Because of this, **technology is not allowed in the classroom without permission from the instructor.** Leave your cell phones, tablets, computers and other devices in your backpack. If you have an accommodation due to a disability, please get me the proper documentation.

Rules and Regulations

UK Core: This course satisfies the Quantitative Foundations requirement of the UK Core General Education program, <http://www.uky.edu/GenEd>.

Excused Absences: University Senate Rule 5.2.4.2 defines the following as acceptable reasons for excused absences: Serious Illness, Illness or death of a family member, University-related trips, major religious holidays, other circumstances your instructor finds to be "reasonable cause for nonattendance". If you are participating in something planned, please inform me before you miss a class. If something unexpected happens, please inform me as soon as possible. You must provide appropriate documentation within one week of the missed day, and earlier for planned activities.

To report an absence, **email me (your name, section, date, reason)** at the email address provided above within one business day of the absence. You are also expected to furnish proof demonstrating the cause compelling you to miss class at the next class meeting for which you are present.

Unexcused absences include missing class entirely without an excuse, showing up more than 5 minutes late or leaving early without an excuse, and neglecting to stay on task. If there are special circumstances that will require you to be late to class or must leave early on a regular basis, please contact me as soon as possible.

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused) per University policy.

Note: There is a procedure for withdrawing from a class. You have not withdrawn if you simply quit attending.

Academic Integrity, Cheating and Plagiarism: You should feel free to study with friends, but any work you submit for a grade should be your own work. This applies to all exams, quizzes and written assignments; with the exception of assignments that are specifically designated as group assignments. Academic dishonesty, in any form, will not be tolerated. This includes, but is not limited to, copying a classmate's work, allowing a classmate to copy your work, modifying an exam after it has been handed back in an attempt to deceive the instructor into believing the assignment was graded incorrectly, using cell phone/device during an exam. A student found guilty of academic dishonesty will receive an automatic E on the assignment, and in some cases the offense may lead to an E in the course, academic probation, or even expulsion. See sections 6.3.1 and 6.3.2 of the University Senate Rules for more information regarding academic integrity.

Recording in the Classroom: Video and audio recordings are not permitted during the class unless the student has received prior permission from the Professors. If permission is granted, recording of other students is prohibited. Any distribution of recordings is also prohibited. Students with specific recording accommodations approved by the Disability Resource Center should present their official documentation to the professor. All content for this course, including handouts, assignments, and power-point lectures are the intellectual property of the instructors and cannot be reproduced, sold, or used for any purpose other than educational work in this class without prior permission from the professor.

Disability Accommodations: If you have documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodations from the Disability Resource Center (Suite 407, Multidisciplinary Science Building, 859-257-2754, dtbeac1@uky.edu) for coordination of campus disability services available to students with disabilities. To provide the needed accommodations, I need documentation at least 10 days to prior to date.

Course Help:

If you find that you need help in the course, THEN YOU SHOULD SEE ME AS SOON AS POSSIBLE!!! Email or stop by my office hours. If the posted office hours do not work with your schedule, please ask about an appointment.

Remember, you earn your grade for this class; I do not GIVE out any grades. Therefore, I expect everyone to try and do his or her best. You are responsible for your own experience in this class and university. Make it a great one!

Free tutoring resources:

1. Mathskeller, CB o63, M-F, 9-5pm. <http://www.mathskeller.com>
2. The Study <http://www.uky.edu/thestudy/>

Email Policy: I will respond to emails within 24 hours. Please expect a response during: Monday-Friday 8am-5pm.

Course Policy: Any questions about grading must be submitted within one week of the assignment being returned in class. I reserve the right to make changes to this syllabus and will make an announcement of any change in class.

Classroom Expectations:

- I expect that you will attend and participate for the ENTIRE class.
- I expect that you will be respectful of yourself and others.
- Please do not eat your meals during class. Any drinks need to be in a container with a lid/cap.
- Please SILENCE YOUR CELL PHONES. They are NOT CALCULATORS.
- I expect that you will ONLY WORK ON OUR CLASS MATERIAL during our class time. No other class work, no surfing internet/checking social media sites, no puzzles, etc. during class. If you are working on non-class material, you will be asked to leave class and receive an unexcused absence.
- The university, college and department have a commitment to respect the dignity of all and to value differences among members of our academic community. There exists the role of discussion and debate in academic discovery and the right of all to respectfully disagree from time-to-time. Students clearly have the right to take reasoned exception and to voice opinions contrary to those offered by the instructor and/or other students. (S.R.6.1.2). Equally, a faculty member has the right-and the responsibility-to ensure that all academic discourse occurs in a context characterized by respect and civility.
- Obviously, the accepted level of civility would NOT INCLUDE attacks of a personal nature or statements denigrating another on the basis of race, sex, religion, sexual orientation, age, national/regional origin or other such irrelevant factors.
- Students who are not respectful, not civil or disruptive in any way will be asked to leave the class, with all subsequent penalties applied to their grade.

There are certain things that are essential for success in this course (and any other math course.):

1. Attend class every day. Your instructor attempts to find a way to present and illustrate that material to make it understandable. You will have the opportunity to ask questions about points that are not clear and to hear responses to questions raised by other students.
2. Do the work. You should not expect to pass this course without understanding and solving completely and accurately many problems. It is no more possible to pass this course with a vague understanding of the material than it is to pass a driving test without ever having previously driven an automobile.
3. Don't get behind. If you find you do not understand a concept, make an attempt to immediately clarify it. Mathematics builds on previously learned material and gaps in understanding soon get out of hand.
4. There are two steps in solving problems. First, figure out how to do the problem. This may require lots of scratch paper and time. The next step, is to write the solution up in a logical way that could be understood by a friend with the appropriate background.
5. Stay organized. Keep a calendar or planner with all the due dates of homework, quizzes, exams, etc. This is a good idea to implement with all of your classes.

Math is the world's universal language. Be proud to speak it.

Notes: