

Class meetings: TR 12:30 – 1:45 pm, CB 212

- Instructor: Sara Ellis-Hebble, POT 951, [sara.ellis@uky.edu](mailto:sara.ellis@uky.edu) (NOTICE: That is “Sara” **WITHOUT!!!** an “h”)
- Office Hours
  - Sara Ellis-Hebble: MF 2-2:50pm (POT 951), W 2-2:50pm in Mathskeller **OR** by appointment
  - (UA) Alex Blose: office hours T 4-5pm, F 11-12pm in Mathskeller and (unofficially) R 11:30-12pm before class
- **Instructor score:** A portion of the 40 instructor points will be based on your classroom attendance and participation, recorded through your iClicker (REEF) polling responses throughout each class period. Correct clicker responses will receive 100%, incorrect clicker responses will receive 60%, while no clicker response will receive 0%.
  - Submitting polling responses for a fellow student, as well as submitting polling responses while outside of the classroom, is considered to be cheating and a violation of the academic honesty policy of the University. **Anyone found submitting polling responses for another student during lecture or having polling responses in a class that you did not attend will lose ALL their polling points for the entire semester.** Repeat offenders may receive an E for the course and face additional disciplinary action. Consider this is your ONE AND ONLY warning!!!
- Cell phones/tablets/etc. should be used **ONLY** for responding to polling questions upon entering class. Texting/browsing/etc. is a distraction, both for yourself and your neighbors.
- **ALWAYS** access the WebAssign online homework website through Canvas using either Chrome or Firefox browser!!!
- Attendance requirements for ALL class meetings are outlined on the common course webpage ([http://www.ms.uky.edu/~ma109/fall\\_2017/syllabus.html](http://www.ms.uky.edu/~ma109/fall_2017/syllabus.html)).
  - **Regarding documentation:** If the number of instructor score absence excuses requested by a student is 3 or fewer, then no documentation need be given. If you feel the need to send a simple email stating that you will be or were absent, you may do so but it is not necessary. However, if the number of absence excuses requested is 4 or more, then the standard policy regarding documentation as stated in the syllabus applies (though the documentation shall be due within one week of the sixth excused absence). In particular, keep documentation for excused absences, especially regarding chronic conditions of type (a) serious illness or (b) illness or death of a family member.

# MA109 Fall 2017 - College Algebra

## Course and instructor demographics

MA 109 is a 3 credit hour class taught by several instructors in several sections. For office hours, meeting times, and contact information, please see the tables below.

### Instructors

It is very important to keep up with your class and to inform your instructor as early as possible of any problems or concerns. Many instructors have multiple hundreds of students, and so there may be delays or special requirements needed to handle what may appear to be simple problems. On the other hand our instructors are highly trained professionals and may be able to help you solve what seem like insurmountable challenges. In either case, the more time the instructor has to consider your case, the more likely you are to have a good result.

Instructors hold drop-in office hours at the times and places listed below. You can stop by to ask questions about the course material or structure. Most instructors also are available in the Mathskeller where you can ask them (or any other instructor present) for help in the course.

Instructor	Email	Office Location	Office Phone	Office Hours	Mathskeller hours
Brian Davis	<a href="mailto:brian.davis@uky.edu">brian.davis@uky.edu</a>	Math House			
Stephen Deterding	<a href="mailto:deterding@uky.edu">deterding@uky.edu</a>	POT 802			
Sara Ellis-Hebble	<a href="mailto:sara.ellis@uky.edu">sara.ellis@uky.edu</a>	POT 951	(859) 257-6821		
Kathy Effinger	<a href="mailto:kathy.effinger9@gmail.com">kathy.effinger9@gmail.com</a>	POT 957			
Nathan Fieldsteel	<a href="mailto:nathan.fieldsteel@uky.edu">nathan.fieldsteel@uky.edu</a>	POT 767			
Chris Marx	<a href="mailto:chris.marx@uky.edu">chris.marx@uky.edu</a>	POT 739			
Marie Meyer	<a href="mailto:marie.meyer@uky.edu">marie.meyer@uky.edu</a>	POT 906			
Nicholas Nguyen	<a href="mailto:nicholas.nguyen@uky.edu">nicholas.nguyen@uky.edu</a>	POT 705			
Charlene Norman	<a href="mailto:cnorman12@live.com">cnorman12@live.com</a>	POT 957			
Katherine Paullin	<a href="mailto:katherine.paullin@uky.edu">katherine.paullin@uky.edu</a>	POT 729	(859) 257-8836		
Jack Schmidt	<a href="mailto:jack.schmidt@uky.edu">jack.schmidt@uky.edu</a>	POT 761	(859) 257-1429		
Jason Terry	<a href="mailto:jpaulterry@uky.edu">jpaulterry@uky.edu</a>	POT 969			

### Sections

Active, engaged class participation is required in all sections. Make sure you know when and where your class meets and make sure to bring appropriate materials to class (a way to view the textbook, a place to take notes, any calculator you want to practice using). Your active, engaged class participation is a major component of your final grade.

The rooms for your exams are also listed (but please check back for possible room changes):

Section	Instructor	Room	Time	Exam 1-3 room	Final room
001	Chris Marx	CB 212	MWF 8:00am-8:50am	CB 122	CB 122
002	Nathan Fieldsteel	CB 110	MWF 9:00am-9:50am	CB 110	CB 110
003	Katherine Paullin	CB 214	MWF 10:00am-10:50am	CB 106	CB 106
004	Katherine Paullin	CB 114	MWF 11:00am-11:50am	CB 106	CB 106
005	Jason Terry	CB 114	MWF 12:00pm-12:50pm	CB 118	CB 118
006	Jason Terry	CB 114	MWF 1:00pm-1:50pm	CB 118	CB 118
007	Nicholas Nguyen	CB 110	MWF 2:00pm-2:50pm	CB 102	CB 102
008	Charlene Norman	CP 222	TuTh 12:30pm-1:45pm	MEH	CP 320
009	Kathy Effinger	CB 214	TuTh 8:00am-9:15am	CB 114	CB 114
010	Jack Schmidt	CB 214	TuTh 9:30am-10:45am	MEH	NUR 115
011	Charlene Norman	CP 220	TuTh 11:00am-12:15pm	MEH	CP 320
012	Sara Ellis-Hebble	CB 212	TuTh 12:30pm-1:45pm	KAS 213	NUR 201
013	Sara Ellis-Hebble	CB 214	TuTh 2:00pm-3:15pm	KAS 213	NUR 201
014	Kathy Effinger	CB 238	TuTh 11:00am-12:15pm	CB 114	CB 114
015	Marie Meyer	JSB 103	TuTh 8:00am-9:15am	MDS 220	CB 204

016	Marie Meyer	CB 242	TuTh 9:30am–10:45am	MDS 220	CB 208
017	Brian Davis	CB 244	TuTh 12:30pm–1:45pm	MDS 223	CB 212
018	Brian Davis	CB 242	TuTh 2:00pm–3:15pm	MDS 223	CB 214
019	Stephen Deterding	CB 203	TuTh 12:30pm–1:45pm	MEH	CB 238
020	Stephen Deterding	EH 305	TuTh 2:00pm–3:15pm	MEH	CB 238

## Course description

College Algebra covers selected topics in algebra, such as a review of grade school algebra, quadratic formula, systems of linear equations, introduction to functions and graphing. Please see [this more detailed schedule with supporting lecture notes and worksheets](#). In particular, we will cover solving equations (linear, quadratic, power, radical, and absolute value equations, as well as equations mentioning the unknown only once), graphing on the Cartesian coordinate system (with special emphasis on lines, their slope, perpendicular and parallel lines), solving systems of equations (with substitution and elimination, both linear and non-linear), using technology (such as graphing calculators and numerical root finders), solving applied problems, inequalities, and general functions, with special emphasis on exponential, logarithmic, polynomial, and rational functions.

## Course Bulletin

The [2017-2018 Bulletin](#) describes this 3 credit hour course as

*Selected topics in algebra. Develops manipulative algebraic skills and mathematical reasoning required for further study in mathematics and use in mathematical modelling. Includes brief review of basic algebra, quadratic formula, systems of linear equations, introduction to functions and graphing, with applications. This course is not available for credit to persons who have received credit in any mathematics course of a higher number with the exceptions of MA 111, 112, 123, 162, 201 and 202. Credit not available on the basis of special examination. Prereq: Two years of high school algebra and a Math ACT score of 21 or above or a Math SAT score of 510 or above; or UK 096; or appropriate MathIndex; or grade of B or better in MA 111. Math placement test recommended.*

## Student learning outcomes and course goals

The goal of this course is to prepare you to use the basic tools of algebra to manipulate both known and unknown numerical quantities. By succeeding in this course, you should be prepared to study elementary calculus (as presented in MA 123) as well as being able to understand and work with mathematical models in your other course work.

Students who successfully complete this course will be able to:

1. Recognize reasonable answers based on number sense and the algebraic relations that must be satisfied by solutions.
2. Recognize and operate with covariational and functional relationships between quantities
3. Read and express those relationships as implicit equations, explicit (functional) equations, graphs, tables of values, and verbal descriptions
4. Manipulate implicit and explicit equations to solve for a chosen variable, or recast a functional relationship in terms of a chosen independent quantity.
5. Use algebraic techniques to solve applied and modelling problems in restricted settings appropriate for a general mathematics course
6. Analyze and evaluate sample arguments and solutions for correctness and reasonableness
7. Analyze limitations of models, especially in terms of piecewise functions and domain restrictions
8. Use appropriate technology to understand and solve problems

## Grading

Your final grade is a letter grade A, B, C, D, or E. It is computed from several components (as indicated in the table). Each exam is taken in the evening, and has a very strict absence and cheating policy (be careful not to get a zero on the exam). Homework is completed online and requires paying a significant fee (\$60 to \$150) with the textbook. The instructor score will measure active, engaged, in-class participation. It may be based on pre-class online quizzes, in-class activities or quizzes, or post-class online quizzes. Once the semester is over, including the final exam, your total points can be compared against the grading cutoffs table to find the matching letter grade. Any curve will be decided after the final exam is graded, but is unlikely to be significant barring unforeseen circumstances. A typical grade distribution is 20% of students assigned an A, 25% B, 20% C, 10% D, 10% E, and an additional 15% withdrawing. Grade distributions may change from semester to semester, but this provides a rough indicator of the difficulty students as a whole have with the course. Please note that the option to retake this course are limited.

Grading components			Grading cutoffs		
Points	%	Assessment	Minimum points	Minimum Percent	Grade
100	20%	Exam 1	450	90.0%	A
100	20%	Exam 2	400	80.0%	B
100	20%	Exam 3	350	70.0%	C
100	20%	Final Exam	300	60.0%	D
40	8%	Online Homework	0	0.0%	E
40	8%	Instructor Score			
20	4%	Written Project			
500	100%	Total			

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar.

During final exams week there will be limited, scheduled opportunities to retake at most one of exam 1, 2, 3. The grade you make on the retake will be averaged with the original grade, in effect allowing you to earn half-credit back, but also allowing you to lose half-credit if you do worse on the retake than on the original.

## Required course materials

### Textbook

The textbook *College Algebra*, by Thomas W. Hungerford and Douglas J. Shaw is required. You may use the 4th or 5th edition of the book, but please keep in mind the requirement to have an access code for WebAssign (an additional \$65 if not purchased with a 5th edition book, but it can be called *Contemporary Precalculus* by Hungerford and Shaw).

We use a customized (\$50 cheaper) version of the original book, which is specifically published for the University of Kentucky and can be purchased at any UK bookstore (about \$150). There is also an ebook version (\$100 from WebAssign) and a turn-in-your-homework-only version (\$47 from WebAssign). The original and ebook versions are called *Contemporary Precalculus*.

### Access Code for WebAssign

If you purchase your textbook new at any UK bookstore, this will come bundled with the book. Otherwise you will need to purchase the access code from the homework website WebAssign for about \$65. You can use WebAssign free until Wednesday, August 30 by logging into Canvas. It appears that Safari on a Mac computer cannot login. We recommend using Google Chrome. Once you purchase the access code, login as usual through Canvas and it will complete the registration.

## Clicker

Your instructor score is based on active, in-class participation. The way this is measured depends on which section you are in. You may want to see the submission guidelines for some details.

In the large sections, 001-014, you will need a “Reef Technologies iClicker subscription” for \$15 per semester. They can be purchased from the UK bookstore, or directly from the phone app. If you don't have a device to view webpages on during class, then ask your instructor about other options. You'll need to register them on Canvas.

Students in the small sections, 015-020, do not need an iClicker. You may be asked to purchase 3x5 index cards or something similar (a dollar or two for the semester).

## Lecture Notes

We will be using notes written for you as a complement/guide to the textbook in order to assist you throughout the course. We will also be using practice problems at the end of every set of notes that have been designed to get you practicing during lecture. These are available for free on our website (though you'd have to pay for printing if you wanted paper versions).

Lecture notes and worksheets			
Textbook	Lecture Notes	Worksheet	Slides
Section 1.1	<a href="#">A bit of review (handwritten) (typeset)</a>	<a href="#">worksheet (answers)</a>	<a href="#">slides</a>
Sections 1.1, 1.2, 5.1A	<a href="#">Solving equations wisely (handwritten) (typeset)</a>	<a href="#">worksheet (answers)</a>	<a href="#">slides</a>
Sections 1.3, 1.4	<a href="#">The Cartesian coordinate system (handwritten) (typeset)</a>	<a href="#">worksheet (answers)</a>	
Sections 11.1, 11.1A	<a href="#">Systems of equations (handwritten) (typeset)</a>	<a href="#">worksheet (answers)</a>	<a href="#">slides</a>
Sections 2.1, 2.2	<a href="#">Using technology wisely (handwritten) (typeset)</a>	<a href="#">worksheet (answers)</a>	<a href="#">slides</a>
Section 2.3	<a href="#">A strategy for solving application problems (handwritten) (typeset)</a>	<a href="#">worksheet (answers)</a>	<a href="#">slides</a>
Section 4.6	<a href="#">Inequalities (handwritten) (typeset)</a>	<a href="#">worksheet (answers)</a>	<a href="#">slides</a>
Chapter 3	<a href="#">Functions (handwritten) (typeset)</a>	<a href="#">worksheet (answers)</a>	<a href="#">slides</a>
Chapter 5	<a href="#">Exponential and logarithmic functions (handwritten) (typeset)</a>	<a href="#">worksheet (answers)</a>	<a href="#">slides</a>
Sections 4.1 to 4.4	<a href="#">Polynomial functions (typeset)</a>	<a href="#">worksheet (answers)</a>	<a href="#">slides</a>
Section 4.5	<a href="#">Rational functions (typeset)</a>	<a href="#">worksheet (answers)</a>	<a href="#">slides</a>

## Calculator

A graphing calculator can be extremely helpful for parts of the course. A standard choice is the TI-84 (\$75 to \$125). Most graphing calculators have the same basic functions, and you should be able to learn about your calculator by reading the manual. A free online graphing calculator such as Desmos may be easier and cheaper to use while still providing all the conceptual benefits, however it cannot be used on exams, so one should be familiar with whatever sort of calculator one decides to use. Exams require a scientific calculator (powers, e, log; TI-30 series, \$10 to \$30), or graphing calculator.

Using the calculator during a test for any reason other than performing the required calculations (for example, to recall a previously stored formula) will be considered cheating. You may use any graphing calculator that is allowed by ACT. Note that you will not be allowed to use the calculator on a cell phone, or any other communication device. Furthermore, you may not use any calculator that has a computer algebra system (CAS) or a QWERTY keyboard. In particular, you may not use the TI-Nspire CAS, any TI-89, any TI-92, the HP 48GII, any HP 40G, any HP 49G, any HP 50G, the Casio Algebra fx 2.0, the Casio ClassPad 300, the Casio ClassPad 330, or any Casio CFX-9970G.

## Course policies

There are a number of important policies that can have a dramatic effect on your understanding and final grade in this course. These policies are intended to be uniform and simple, but if you have not read over them, they may have unexpected consequences.

## Important dates

See the [Academic Calendar](#), the [Common Hour Exam schedule](#), and the [Final Exam schedule](#) for Fall 2017.

Wednesday, August 23	First Day of Classes
Tuesday, August 29	Last Day to Add
Monday, September 4	Labor Day (no classes)
Wednesday, September 13	Last Day to Drop
Wednesday, September 20	Exam 1 (7:30pm – 9:30pm)
Wednesday, October 18	Exam 2 (7:30pm – 9:30pm)
Friday, October 20	Midterm grades
Friday, November 10	Last Day to Withdraw
Wednesday, November 15	Exam 3 (7:30pm – 9:30pm)
Monday, November 20	Written Project Due
Wednesday, November 22 to Friday, November 24	Thanksgiving Break (no classes)
Friday, December 8	Last Day of Classes
Wednesday, December 13	Final Exam (8:30pm - 10:30pm)

## Attendance

Active, engaged, in-class participation is mandatory and forms a major portion of your final grade. You should be ready to work when class begins (for example: seated, notes and pencil ready, attention to the front, quiet at 8:00am if the class starts at 8:00am). You should not pack up or leave until class is over (for example: you should still be working at 8:49am if the class ends at 8:50am). If you have special circumstances, please contact your instructor before class begins so that they can excuse late arrivals or early departures. Unexcused late arrivals or early departures may result in significant reduction in participation grade for each day on which they occur.

An absence can only be excused if the instructor is notified within a week of the absence. The choice to excuse the absence is with the instructor, though excuses will be granted (given timely notification) according to [University Senate Rule 5.2.4.2](#): namely (a) serious illness, (b) illness or death of a family member, (c) University related trips, (d) major religious holidays, (e) other reasons deemed reasonable by the instructor. In the case of (c) and (d) notification must be provided one week in advance. In all cases documentation may be requested to ensure the absence does meet policy. For (a) a University Health Services Tier 2 or Tier 3 excuse is required, or a similar note from a health care provider who will confirm that you are a patient and were seen on the indicated day. Documentation that cannot be verified may result in the absence not being excused.

Absences can affect three major types of grade, and the policies for how absences affect each grade differ: **Homework** extensions should be requested before the homework solutions are available. Homework is available many weeks in advance, so that absences of type (c) and (d) can usually be handled without recourse to a homework extension. **Instructor score** measures a continued commitment to engaged, active in-class participation. Consult your individual instructor for details on how this will be measured, and how excused absences affect this measurement. Absences for **exams** are quite serious. An unexcused exam absence results in 0 for the exam grade, which lowers your final grade by at least a letter grade. To allow for exceptional circumstances, there is a simple alternate exam sign-up available in your canvas course. We have a number of

alternate times available to take each exam, and any request received before one week prior to the exam for one of those times will be automatically granted (excused). On the other hand last minute requests or requests that would require undue hardship are likely to be rejected (unexcused). Absences of type (a) and (b) should be reported within 24 hours of the exam to ensure that a reasonable accommodation can be found. Exam absences not reported within a week are automatically unexcused and result in a zero on the exam.

## Submission of assignments

Homework must be submitted online at WebAssign, in the appropriate course as accessed from [Canvas](#). WebAssign is a for-profit company that charges a fee to use their online homework. The student is responsible for paying this fee. The textbook at the UK Bookstore includes this fee (about \$150 including both book and fee). The WebAssign website should also provide a link to purchase an online-only version of the textbook that also includes this fee (about \$65 including both e-book and fee).

The homework due dates are listed in the [course schedule](#). Homework assignments are always due at 11:59 pm. Please note that if you are having trouble with the website, you should contact WebAssign for [help](#). There will be many homework sets throughout the semester. You can see the homework assignment due dates on the class schedule. Note that two of these assignments are due during Dead Week.

Exams must be taken at the specified times and locations, or an alternate exam must be approved by the instructor, using the form in canvas. You are expected to take the exam without notes, textbooks, online access, or communication with your peers. You may use a calculator approved for use on the ACT.

Instructor score may require submission of online quizzes (also on WebAssign) that may be due before class (“reading checks”), during class (“emporium style”), or after class (“daily quiz”). Sections 001 to 014 require the use of Reef Technologies iClicker which costs about \$15 (and can be used on your smart phone, tablet, or laptop). Instructor score may also require taking a short in-class quiz at the beginning (“entrance slip”), middle (“pop quiz”), or end (“exit slip”). You may be expected to bring your own index card to turn in the quiz, especially in sections 015 to 020.

Written projects will be submitted through Canvas (instructions will be posted on Canvas). The due date is Monday, November 20, 2017 at 5pm. This project is a mandatory part of the class and fulfills Gen Ed requirements (UK Core [Quantitative Foundations](#)). Information about the project can be found [here](#). This project is worth 20 points in the calculation of your final grade. One point is deducted for every 6 hours the project is late.

## Accommodations Due to Disability

Please notify your instructor in advance if you need **accommodations** due to disability. Exam accommodations require one week notice to get everything in place. Most accommodations can be worked out (in broad strokes) with the [disability resource center](#). They will provide you with a letter for your instructor that should make finding accommodations easy. You should still check with your instructor that everything looks fine (and arrange a private meeting if details need to be discussed).

## Academic Honesty

All assignments, exams, quizzes, projects, and exercises completed by students for this class should be the product of the personal efforts of the individual(s) whose name(s) appear on the corresponding assignment. Cheating or plagiarism is a serious offense and will not be tolerated. Any potential cheating case will be thoroughly investigated, and could lead to failure in the course or even to expulsion from the university. See Student Rights and Responsibilities in the [University Senate Rules \(Sections 6.3.1 and 6.3.2\)](#) for information on cheating, plagiarism, and penalties. A summary of recent changes to rules on cheating can be found at the [academic ombud website](#).

## **Classroom Behavior, Decorum, and Civility**

Students are expected to be actively participating during class. Students are also expected not to distract others. If you arrive late, leave early, are distracted by your phone, or are otherwise not actively engaged with the class you may not receive credit for participating that day. If you are disrupting class, you may be asked to leave.

College Algebra is traditionally a very difficult class, and many of your classmates will be having a hard time adjusting both to the university and to the demands of the class. You are expected to treat your classmates with respect. It is reasonable to disagree, but you should express your disagreement respectfully. Personal attacks or statements denigrating another on the basis of race, sex, religion, sexual orientation, gender or gender expression, age, national/regional origin or other such irrelevant factors are considered a severe disruption. Harassment will not be tolerated.

## **Non-Discrimination Statement and Title IX Information**

The University of Kentucky faculty are committed to supporting students and upholding the University's non-discrimination policy.

Discrimination is prohibited at UK. If you experience an incident of discrimination we encourage you to report it to Institutional Equity & Equal Opportunity (IEEO) Office, 13 Main Building, (859) 257-8927.

**Acts of Sex- and Gender-Based Discrimination or Interpersonal Violence:** If you experience an incident of sex- or gender-based discrimination or interpersonal violence, we encourage you to report it. While you may talk to a faculty member or TA/RA/GA, understand that as a "Responsible Employee" of the University these individuals **MUST** report any acts of violence (including verbal bullying and sexual harassment) to the University's Title IX Coordinator in the IEEO Office. If you would like to speak with someone who may be able to afford you confidentiality, the [Violence Intervention and Prevention \(VIP\) program](#) and [Bias Incident Support Services](#) (Frazee Hall – Lower Level), the [Counseling Center](#) (106 Frazee Hall), and [University Health Services](#) are confidential resources on campus.

## **Dead week**

Homework score and instructor score continue as usual. Homework is due and the typical measures of in-class participation will be present. No papers or exams will be given during dead week.

## **Limited course repeats**

University Senate rule 4.3.3 allows department chairs to prevent a student from registering in a course for a third time, unless a student has withdrawn for urgent, non-academic reasons. The Department of Mathematics enforces this rule for students attempting a fourth registration in MA 109, 110, 113 and 137.



# Course Schedule

The following is a tentative course schedule. The homework assignments correspond to the lecture notes.

Mon	Tue	Wed	Thu	Fri
Aug 21	Aug 22	Aug 23 First Day of Classes	Aug 24	Aug 25 HW: Check-in
Aug 28	Aug 29 Last Day to Add HW: A bit of review	Aug 30	Aug 31	Sep 1 HW: Solving Equations A
Sep 4 Labor Day (no classes)	Sep 5 HW: Solving Equations B	Sep 6 HW: Mini-Exam 1	Sep 7	Sep 8 HW: Solving Equations C
Sep 11	Sep 12 HW: Solving Equations D	Sep 13 Last Day to Drop	Sep 14	Sep 15 HW: Cartesian coordinates A
Sep 18	Sep 19 HW: Cartesian coordinates B	Sep 20 Exam 1 (7:30pm – 9:30pm)	Sep 21	Sep 22
Sep 25	Sep 26 HW: Systems A	Sep 27	Sep 28	Sep 29 HW: Systems B
Oct 2	Oct 3 HW: Systems C	Oct 4 HW: Mini-Exam 2	Oct 5	Oct 6 HW: Tech Wisely
Oct 9	Oct 10 HW: Applied	Oct 11	Oct 12	Oct 13 HW: Inequalities
Oct 16	Oct 17 HW: Functions A	Oct 18 Exam 2 (7:30pm – 9:30pm)	Oct 19	Oct 20 Midterm grades
Oct 23	Oct 24 HW: Functions B	Oct 25	Oct 26	Oct 27 HW: Functions C
Oct 30	Oct 31 HW: Functions D	Nov 1 HW: Mini-Exam 3	Nov 2	Nov 3 HW: Functions E
Nov 6	Nov 7 HW: Functions F	Nov 8	Nov 9	Nov 10 Last Day to Withdraw HW: Exp/Log A
Nov 13	Nov 14 HW: Exp/Log B	Nov 15 Exam 3 (7:30pm – 9:30pm)	Nov 16	Nov 17
Nov 20 Written Project Due HW: Written Project	Nov 21 HW: Exp/Log C	Nov 22 Thanksgiving Break (no classes)	Nov 23 Thanksgiving Break (no classes)	Nov 24 Thanksgiving Break (no classes)
Nov 27	Nov 28 HW: Poly A	Nov 29 HW: Mini-Exam 4	Nov 30	Dec 1 HW: Poly B
Dec 4	Dec 5 HW: Poly C	Dec 6	Dec 7	Dec 8 Last Day of Classes HW: Rational

Dec 11	Dec 12	Dec 13 Final Exam (8:30pm - 10:30pm)	Dec 14	Dec 15
--------	--------	--	--------	--------

## Study help

In addition to the lecture notes, the textbook and your instructor's office hours, you may find the following useful for studying:

## Old exams

The topics covered on each exam in MA 109 may change slightly from semester to semester. Thus, the exams which are linked to this page may cover different topics than the exams to be given this semester in MA 109.

Spring 2017	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
Fall 2016	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
Spring 2016	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
Fall 2015	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
	<a href="#">Explanation 1</a>	<a href="#">Explanation 2</a>	<a href="#">Explanation 3</a>	<a href="#">Explanation 4 (and another)</a>
Spring 2015	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
Fall 2014	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
Spring 2014	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
Fall 2013	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
Spring 2013	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
Fall 2012	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
Spring 2012	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
Fall 2011	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>
Spring 2011	<a href="#">Exam 1</a>	<a href="#">Exam 2</a>	<a href="#">Exam 3</a>	<a href="#">Exam 4</a>
	<a href="#">Key 1</a>	<a href="#">Key 2</a>	<a href="#">Key 3</a>	<a href="#">Key 4</a>

## Services in The Mathskeller and The Study

The Mathskeller is located in CB 063 in the basement of the classroom building. Many instructors from the Department of Mathematics will hold office hours in the Mathskeller. In addition, limited drop-in tutoring is available. The Mathskeller is open from 9am to 5pm Monday through Friday (except academic holidays) during the semester. Additional information is available at <http://www.math.uky.edu/~mathskeller/>.

The Peer Tutoring Program offers FREE drop-in tutoring for many University of Kentucky (UK) core courses. Offering proactive assistance, the goal of the Peer Tutoring Program is to enhance students' academic experience as early and as often as possible. The Peer Tutoring Program provides a welcoming and friendly

atmosphere for students to drop in, as they wish, to seek help on homework or exam prep, or simply to study within a group environment. Peer Tutors in The Study Central and The Study North are nationally certified, well-trained undergraduate students who have successfully completed the course for which they tutor at UK. This makes them a great resource for questions about a professor or course format in addition to questions pertaining to the subject.

Peer tutoring is offered in two locations—The Study Central, on the bottom floor of Donovan Hall (entrance is catty corner from K-Lair) on central campus, and The Study North, on the first floor of Jewel Hall (residence hall across from the Student Center) on north campus.