# MA 162: Finite Mathematics and its Applications
College of Arts & Sciences (A&S)
Department of Mathematics (MA)

**Instructor Information:**
  *Instructor:* Cole Pospisil
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  *Office Hours:* TBD
**Class Time and Location:** 11:30-12:30 MTWRF, Whitehall Classroom Bldg Rm.303

Course Description

Finite mathematics with applications to business, biology, and the social sciences. Linear functions and inequalities, matrix algebra, linear programming, and financial math. Emphasis on setting up mathematical models from stated problems.

Prerequisites

MA 109 or equivalent

Student Learning Outcomes

This course will emphasize computational and modeling aspects of mathematics. The course will also require you to effectively communicate your solutions. This means that by the end of the semester you should be able to: setup application or word problems, explain the result of a computation, interpret formulas or processes, and clearly communicate your solution process, in addition to getting the "right" answer.
The web homework is only capable of testing your computational ability. Lecture, recommended readings, and other provided materials will help develop your modeling and mathematical communication skills.

Required Materials

Course Text: The course text is Applied Finite Mathematics by Sekhon and is free for download under the files tab in this Canvas shell or can be downloaded for free here (Links to an external site.)Links to an external site.. If you want a hard copy, you will need to print the book. You only need to print chapters 1-10. The rest of the material in the book will not be covered in this course.
Calculator: You will need a calculator to perform certain calculations on exams. Scientific calculators (like the TI-30X) or business calculators (like the BA-II) will be adequate. Graphing calculators are allowed but they are not required. However, exam questions will be written to ensure that students with graphing calculators do not have an unfair advantage. Exam proctors reserve the right to clear the memory of any calculator you bring into the exam room. Note that you will never be allowed to use the calculator on a cell phone, or any other communication device. Please see this page for a description of permitted calculators which may be used on exams: http://www.actstudent.org/faq/calculator.html

Course Outline

Chapter 1: Linear Equations
Chapter 3: Matrices
Chapter 5 & 7: Linear Programming (Geometric and Algebraic Methods)
Chapter 9: Mathematics of Finance

Course Assignments

Students will be evaluated in the following three components for this course, weighted by the percentages shown.

4 Exams at 80% of the course grade (each worth 20%) 21 graded WeBWork online homework assignments at 10% of the course grade Participation grade at 10% of the course grade

Course Grading

Grading scale:

| | | |
|---|---|---|
| 89.5 | 100% | A |
| 79.5 | 89.49% | B |
| 69.5 | 79.49% | C |
| 59.5 | 69.49% | D |
| Below 59.5% | | E |

This scale is strict. Grades will not be rounded.

Webwork Information

The link to the Webwork is on my website. There are currently 162 homework problems in total. Your grade will be calculated by dividing the number of points you accumulate by 145 giving a max score of 100% on the homework. If you stay logged in to Webwork and dormant for too long, Webwork will log you out.

Exam Information

There are 3 common hour exams and a non-cumulative final exam. The dates and times can be found in Modules using the Exam Schedule and Rooms link. The final exam is Thursday August 1. No final exams will be given earlier than the scheduled final exam. Plan ahead now and don't make plans to leave campus early.

Mid-term Grade

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (http://www.uky.edu/registrar/calendar)

Attendance Policy

Students are expected and required to attend all lectures and recitation sessions.

Alternates, Makeups and Extensions

WeBWork: NO HOMEWORK EXTENSIONS will be individually given. There are extra problems incorporated into the grading to make up for a couple missed homework assignments. All of the homework assignments are open at the beginning of the semester. If you know you will not be available to complete homework, plan ahead and complete them before the deadline. Extreme situations will be considered on a case by case basis.

Exams: Alternate exams can be requested by filling out the alternate exam request form in the case of a course conflict or official university event. According to university policy, it is the student's responsibility to resolve scheduling conflicts with common hour exams, and this must be done at least TWO WEEKS before the exam. If you fail to inform your instructor of exam conflicts in timely manner, a penalty may be assessed on your exam score. To avoid any problems, request alternate exams as soon as you know you

may have a conflict.

Excused Absences

Senate Rules 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit reasonable cause for nonattendance by the professor.
Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Two weeks prior to the absence is reasonable, but should not be given any later. Information regarding major religious holidays may be obtained through the Ombud (859-257-3737, http://www.uky.edu/Ombud/ForStudents_ExcusedAbsences.php)
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.
Per Senate Rule 5.2.4.2, students missing any graded work due to an excused absence are responsible: for informing the Instructor of Record about their excused absence within one week following the period of the excused absence (except where prior notification is required); and for making up the missed work. The professor must give the student an opportunity to make up the work and/or the exams missed due to an excused absence, and shall do so, if feasible, during the semester in which the absence occurred.

Dead Week Classes 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.

Academic Integrity

Per University policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the University may be imposed.
Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website:
http://www.uky.edu/Ombud. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.
Senate Rules 6.3.1 (see http://www.uky.edu/Faculty/Senate/ for the current set of Senate Rules) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about a question of plagiarism involving their work, they are obliged to consult their instructors on the matter before submission.
When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording, or content from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism.
Plagiarism includes reproducing someone else's work (including, but not limited to a published article, a book, a website, computer code, or a paper from a friend) without clear attribution. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work, which a student submits as his/her own, whoever that other person may be. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone.
When a student's assignment involves research in outside sources or information, the student must carefully acknowledge exactly what, where and how he/she has employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an

appropriate indication of its origin. Making simple changes while leaving the organization, content, and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas, which are so generally and freely circulated as to be a part of the public domain.
Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Accommodations due to disability

If you have a 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 an electronic version of your Letter of Accommodation from the Disability Resource Center (DRC). The letter must be received at least 8 business days prior to the first exam you plan to use any test accommodations. The DRC coordinates campus disability services available to students with disabilities. It is located on the corner of Rose Street and Huguelet Drive in the Multidisciplinary Science Building, Suite 407. You can reach them via phone at (859) 257-2754 and via email at drc@uky.edu. Their web address is http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/.

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 (Links to an external site.)Links to an external site. and Bias Incident Support Services (Links to an external site.)Links to an external site. (Frazee Hall  Lower Level), the Counseling Center (Links to an external site.)Links to an external site. (106 Frazee Hall), and University Health Services (Links to an external site.)Links to an external site. are confidential resources on campus.

Disclaimer

I reserve the right to change or amend this syllabus at any time for any reason. In this event, proper notice will be given in class.