

Course Information

Instructor:

<i>Name:</i>	Jake Wildstrom	
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<i>Office:</i>	Natural Sciences Building 113	
<i>Office hours:</i>	<i>Primary:</i> Monday 11:30–12:30, Thursday 11:00–12:00	
	<i>Secondary:</i> T14:30–15:30, W15:30-16:30, and by appointment	

TAs:

<i>Name:</i>	Adam Bamforth	Jacob Townson
<i>E-mail address:</i>	adam.bamforth@louisville.edu	jacob.townson@louisville.edu
<i>Office:</i>	Natural Sciences 321	Natural Sciences 212
<i>Office hours:</i>	W14–16, R9–11	W12–14, R10–12

Course Websites:

http://blackboard.louisville.edu/webapps/nosession/course_redirect.jsp?course_id=MATH-105-75-4168

http://blackboard.louisville.edu/webapps/nosession/course_redirect.jsp?course_id=MATH-105-76-4168

<http://aleph.math.louisville.edu/teaching/2016FA-105>

Lecture: MW 16:30–17:45 in Natural Sciences Lower Level 030.

Recitation: W 18:00–18:50 in Natural Sciences 212E or 317.

Prerequisites: Appropriate placement score or equivalent coursework.

Special notes: This course does not meet the specific mathematics requirements of some majors, and is not a prerequisite for any other math course.

Textbook: *Topics in Contemporary Mathematics*, 6th edition, by Wiley Williams, ISBN 1-4652-7717-X.

Learning Outcomes: In this class, we will use mathematical modeling to solve practical problems, with applications to management science, social choice, and personal finance. This course fulfills a General Education requirement in Mathematics. One goal of the course will be to practice critical thinking skills. Key elements of critical thinking include: identifying the question or problem, developing an abstraction or model, and drawing practical conclusions based on theoretical analysis.

General Education Content: MATH 105 is a general education course. This course satisfies the university general education requirement in the mathematics content area. Students who satisfy this requirement will demonstrate that they are able to do all of the following: represent mathematical information symbolically, visually, and numerically; use arithmetic, algebraic, and geometric models to solve problems; interpret mathematical models such as formulas, graphs, and tables; estimate and check answers to mathematical problems, determining reasonableness and correctness of solutions.

Calculators: Students are expected to have, and to be able to use, a calculator with the ability to do logarithms and exponents. Almost all scientific and graphing calculators have these abilities. If you do not already possess such a device, the FX-300MS, TI-30X IIS, and TI-30XA (among many other devices) are inexpensive and suitable. Students **may not** share calculators or use calculator functions of multipurpose devices (e.g. cellphones, laptops, tablets) during assessments. If you are not familiar with the operation of a scientific calculator or uncertain as to whether a certain

calculator will suffice, please speak with the instructor or a TA.

Responsibilities: You are responsible for attending class on a regular basis and maintaining comprehension of the scheduled class objectives for each day. You are expected to be active participants in class, and to attend the scheduled quizzes and examinations in your scheduled recitation section, and to complete the projects in a timely fashion. Assignments are provided for your benefit and you are expected to work on them for your own benefit in order to grasp concepts for the course.

Special needs: Any scheduled absence during a quiz or examination, or any other special needs, *must* be brought to my attention during the first week of class. Unscheduled absences will be handled on a case-by-case basis, with exceptions generally made only for documented emergencies.

Honesty: There are many outside resources available to help you succeed in this class, including consultation during office hours and cooperation with other students. It is important, however, that all papers handed in be the result of your individual comprehension of the course material. Duplication of others' work is both a disservice to your own education and a serious violation of the university's academic honesty policy.

Grades: Homework is ungraded and is provided for study purposes. Quizzes will be open-book and open notes, and will be based on the homework problems, and will each be worth 15 points. The four midterm examinations will each be worth 100 points, and the two projects will each be worth 50 points. A 90% (572 points) overall guarantees a grade of A–, 80% (508) guarantees a B–, 70% (445) guarantees a C–, and 60% (381) guarantees a D–.

Title IX/Clery Act Notification: Sexual misconduct (including sexual harassment, sexual assault, and any other nonconsensual behavior of a sexual nature) and sex discrimination violate University policies. Students experiencing such behavior may obtain confidential support from the PEACC Program (502-852-2663), Counseling Center (502-852-6585), and Campus Health Services (502-852-6479). To report sexual misconduct or sex discrimination, contact the Dean of Students (502-852-5787) or University of Louisville Police (502-852-6111). Disclosure to University faculty or instructors of sexual misconduct, domestic violence, dating violence, or sex discrimination occurring on campus, in a University-sponsored program, or involving a campus visitor or University student or employee (whether current or former) is not confidential under Title IX. Faculty and instructors must forward such reports, including names and circumstances, to the University's Title IX officer. For more information, see the Sexual Misconduct Resource Guide (<http://louisville.edu/hr/employeerelations/sexual-misconduct-brochure>).

Changes: The syllabus is subject to change. Changes will be announced in class and updated online.

Course Schedule

This schedule is tentative and subject to change; assessment dates and due dates will not be changed, barring exceptional circumstances.

Week	Monday	Wednesday
1	August 22nd Section 1.1	August 24th Sections 1.2, 1.3
2	August 29th Section 1.4	August 31st Sections 1.5, 1.6 Quiz #1
3	September 5th Labor Day	September 7th Sections 1.7, 1.8 Quiz #2
4	September 12th Section 2.1	September 14th Section 2.2 Exam #1
5	September 19th Section 2.3	September 21st Section 2.4 Quiz #3
6	September 26th Sections 2.5, 2.6	September 28th Section 2.7 Quiz #4
7	October 3rd Mid-term break	October 5th Section 3.1 Exam #2
8	October 10th Section 3.1	October 12th Section 3.2 Quiz #5
9	October 17th Section 3.2 Project #1 due	October 19th Section 3.2 Quiz #6
10	October 24th Withdrawal date Section 4.1	October 26th Section 4.2 Exam #3
11	October 31st Section 4.2	November 2nd Section 4.3 Quiz #7
12	November 7th Section 4.3	November 9th Section 4.4 Quiz #8
13	November 14th Section 4.5	November 16th Section 4.6 Quiz #9
14	November 21st Section 4.6 Project #2 due	November 23rd Thanksgiving
15	November 28th Section 4.7	November 30th Section 4.7 Exam #4
16	December 5th Review/catchup	December 7th Reading day

Problem Sets through Exam #2

- Complete by *August 24* in preparation for *Quiz #1*:
 - *Section 1.1*: 1, 2, 3, 7, 8, 9, 10, 11, 12, 13, 14, 15, 23, 25, 27, 29.
- Complete by *August 31* in preparation for *Quiz #1*:
 - *Section 1.2*: 1, 2, 3, 4, 5, 6, 11, 13, 15, 17, 19.
 - *Section 1.3*: 1, 2, 5, 7, 9, 11, 13.
- Complete by *September 7* in preparation for *Quiz #2*:
 - *Section 1.4*: 1, 2, 3, 4, 5, 6, 13, 15, 17, 19, 21, 23.
 - *Section 1.5*: 1, 2, 3, 4, 7, 9, 11, 13, 15, 17, 19.
 - *Section 1.6*: 1, 2, 3, 4, 9, 11, 13, 15, 17, 19, 21.
- Complete by *September 14* in preparation for *Quiz #3*:
 - *Section 1.7*: 1, 2, 3, 4, 5, 11, 13, 15, 17, 19, 21, 23.
 - *Section 1.8*: 3, 4, 9, 11, 13, 15.
 - *Section 2.1*: 1, 2, 7, 9, 11, 13, 15, 17. **Section 2.1 will not be assessed on Exam #1!**
- Complete by *September 21* in preparation for *Quiz #3*:
 - *Section 2.2*: 9, 11, 13, 15, 17, 19, 21.
- Complete by *September 28* in preparation for *Quiz #4*:
 - *Section 2.3*: 9, 11, 13(a–b), 15(a–b). 19, 21.
 - *Section 2.4*: 13, 15, 19, 23.
 - *Section 2.5*: 1, 3, 5, 7.
 - *Section 2.6*: 5, 7, 9, 13, 15.
- Complete by *October 5* in preparation for *Quiz #5*:
 - *Section 2.7*: 1, 3, 5, 7, 9.