

## Course Information

**Instructor:**

<i>Name:</i>	Jake Wildstrom
<i>E-mail address:</i>	djwild01@louisville.edu
<i>Phone number:</i>	(502)852-5845 (x5845)
<i>Office:</i>	Natural Sciences Building 113
<i>Office hours:</i>	<i>Primary:</i> T17:30–18:30, W12–13 <i>Secondary:</i> W13–14, F11–12, and by appointment

**TAs:**

<i>Name:</i>	Jordan Bennett	Reed Cohen
<i>E-mail address:</i>	jsbenn03@louisville.edu	rbcohe01@louisville.edu
<i>Office:</i>	TBA	TBA
<i>Office hours:</i>	TBA	TBA

### Course Websites:

[https://blackboard.louisville.edu/webapps/uofl-redirect-bb\\_bb60/course\\_redirect.jsp?course\\_id=MATH-105-07-4178](https://blackboard.louisville.edu/webapps/uofl-redirect-bb_bb60/course_redirect.jsp?course_id=MATH-105-07-4178)  
<http://aleph.math.louisville.edu/teaching/2017FA-105>

**Lecture:** TR 16:00–17:15 in Natural Sciences 112.

**Recitation:** W 14:00–14:50 in Natural Sciences 212E or 317, 15:00–15:50 in Natural Sciences 110, or 16:00–16:50 in Natural Sciences 212E or 108.

**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; however, assessment dates and due dates will not be changed, barring exceptional circumstances.

Week	Tuesday	Wednesday	Thursday
1	August 22nd Section 1.1	August 23rd First recitation	August 24th Sections 1.2, 1.3
2	August 29th Section 1.4	August 30th Quiz #1	August 31st Sections 1.5, 1.6
3	September 5th Sections 1.7, 1.8	September 6th Quiz #2	September 7th Section 2.1
4	September 12th Section 2.2	September 13th Exam #1	September 14th Section 2.3
5	September 19th Section 2.4	September 20th Quiz #3	September 21st Sections 2.5, 2.6
6	September 26th Section 2.7	September 27th Quiz #4	September 28th Section 3.1
7	October 3rd Section 3.1	October 4th Exam #2	October 5th Section 3.2
8	October 10th Mid-term break	October 11th Quiz #5	October 12th Section 3.2 Project #1 due
9	October 17th Section 3.2	October 18th Quiz #6	October 19th Section 4.1
10	October 24th Section 4.2	October 25th Exam #3	October 26th Section 4.2
11	October 31st Section 4.3	November 1st Quiz #7	November 2nd Section 4.3
12	November 7th Section 4.4	November 8th Quiz #8	November 9th Section 4.5
13	November 14th Section 4.6	November 15th Quiz #9	November 16th Section 4.6
14	November 21st Section 4.7	November 22nd Thanksgiving	November 23rd Thanksgiving
15	November 28th Review/catchup/misc	November 29th Exam #4	November 30th Review/catchup/misc Project #2 due
16	December 5th Reading day	Saturday, December 9 Final exam, 16:45–19:15	

## Problem Sets through Exam #2

- Complete by *August 23* 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 30* 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.
  - *Section 1.4*: 1, 2, 3, 4, 5, 6, 13, 15, 17, 19, 21, 23.
- Complete by *September 6* in preparation for *Quiz #2*:
  - *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.
  - *Section 1.7*: 1, 2, 3, 4, 5, 11, 13, 15, 17, 19, 21, 23.
  - *Section 1.8*: 3, 4, 9, 11, 13, 15.
- Complete by *September 13* in preparation for *Quiz #3*:
  - *Section 2.1*: 1, 2, 7, 9, 11, 13, 15, 17. **Section 2.1 will not be assessed on Exam #1!**
  - *Section 2.2*: 9, 11, 13, 15, 17, 19, 21. **Section 2.2 will not be assessed on Exam #1!**
- Complete by *September 20* in preparation for *Quiz #3*:
  - *Section 2.3*: 9, 11, 13(a–b), 15(a–b). 19, 21.
  - *Section 2.4*: 13, 15, 19, 23.
- Complete by *September 27* in preparation for *Quiz #4*:
  - *Section 2.5*: 1, 3, 5, 7.
  - *Section 2.6*: 5, 7, 9, 13, 15.
  - *Section 2.7*: 1, 3, 5, 7, 9.