

1-2014

## M 105.04: Contemporary Mathematics

Louis M. Lutz

*University of Montana - Missoula*, [louis.lutz@umontana.edu](mailto:louis.lutz@umontana.edu)

Let us know how access to this document benefits you.

Follow this and additional works at: <https://scholarworks.umt.edu/syllabi>

---

### Recommended Citation

Lutz, Louis M., "M 105.04: Contemporary Mathematics" (2014). *Syllabi*. 1083.  
<https://scholarworks.umt.edu/syllabi/1083>

This Syllabus is brought to you for free and open access by the Course Syllabi at ScholarWorks at University of Montana. It has been accepted for inclusion in Syllabi by an authorized administrator of ScholarWorks at University of Montana. For more information, please contact [scholarworks@mso.umt.edu](mailto:scholarworks@mso.umt.edu).

Math 105  
Section 4

**Instructor:** Mark Lutz      **Office:** Corbin 269      **Phone:** 243-5466      **e-mail:** lutzm@mso.umt.edu  
**Office Hours:** MWF 10:15-11:15, MW 2:15-3:00 and by appointment.

**Course Coordinator:** First person to see with complaints, questions, etc. about this course that cannot be resolved with the instructor.

Lauren Fern      **Office:** Math 205B      **Phone:** 243-5398      **e-mail:** fernl@mso.umt.edu

**Text:** *Quantitative Literacy "Thinking Between the Line"* W.H. Freeman and Company 2012

**Course Content:** Personal Finance (Chapter 4), Probability (Chapter 5), Statistics (Chapters 6), and additional topics determined by available time.

**Catalog Description:** The course description for all math classes can be found at:

<http://www.umt.edu/catalog/cat/cas/math.html#courses>

**U 105 Contemporary Mathematics 3 cr.** Offered every term. An introduction to mathematical ideas and their impact on society. Intended for students wishing to satisfy the general education mathematics requirement.

**Class Web Page:** (from <http://www.math.umt.edu/105>)

**Prerequisite:** MATH 095D or appropriate placement score.

**Grading:**

If you are taking this class to meet general education requirements, you must select the **traditional grade** rather than **Credit/no credit**. Any arrangements for the make-up of missed tests must be scheduled prior to the test date. **If a test is missed without making prior arrangements, the test grade will be recorded as a 0.**

Quizzes/Homework

30 percent of final grade

Tests

70 percent of final grade

Final (Comprehensive and Optional)

May replace test scores

**Grades will be assigned using the scale:**

100-90%	A - A-
89-80	B+ - B -
79-70%	C+ - C -
69-60%	D - D -
Below 60%	F

**Free Tutoring:**

MLC - TBA

math@Mansfield - TBA

**Quizzes:**

Quizzes will be given at various times during the semester. Some of them may be unannounced. Make-up quizzes **WILL NOT** be given.

**Homework:**

The learning of mathematics requires participation in the process of doing mathematics. There will be assignments made each class. Clarity of exposition is important and you should strive for well-written, polished solutions. For the most part, collaboration on homework with other members of the class is allowed, although solutions must be submitted individually and collaborators must be acknowledged. **Homework will not be accepted late for credit unless handed in the day you return to class.**

**Attendance:**

Students are expected to attend class, and class attendance is a component of the course grade.

**Your final average for the course will be reduced by 1% for each class missed after three.**

You are allowed 3 absences (this includes both excused and unexcused absences) without penalty.

**If you must miss a class, you are responsible for obtaining your assignment either by contacting me by e-mail or from another member of the class. You will receive credit for your homework if you hand in both the current and the late assignments the day you return to class.**

**Materials needed:**

Calculator, textbook, writing instrument, computer access with spreadsheet capability, and paper.

**Graphing calculators may not be shared on quizzes or tests.**

**Learning Goals:**

To attain some degree of mathematical literacy, including an ability to read mathematical material and write using mathematical notation correctly.

To develop skills to think and reason mathematically in order to function more effectively in the modern world

To examine ways in which mathematics is used, to follow and understand logical arguments, and to solve applied quantitative problems (This includes learning to formulate a problem precisely, to interpret solutions, and to make critical judgments in the face of competing formulations and solutions)

To understand elementary probability concepts and phenomena: including sample spaces with equally likely outcomes, the basic parameters (mean, standard deviation), the normal distribution, and a qualitative view of the Central Limit Theorem

To understand elementary statistical concepts, such as data description, statistical estimation, randomization, and statistical inference

To explore and examine several other aspects of contemporary mathematics (This could include, but is not limited to, management science e.g. graph models for network problems, social choice and decision making e.g. elections, voting, fair division, Congress apportionment, or applied geometry e.g. symmetry, tilings, growth rates)

**Notes About the Course:**

This course is designed to illustrate several ways in which mathematics is used in the “real world”. We will explore some topics of general interest which are not typically taught in a formal mathematics class. The goal is for you to see not only how useful mathematics is, but also how beautiful and elegant it can be.

**Incomplete (I) Grades:**

To be eligible for an “I”, the following conditions must be met:

1. The student must have been in **attendance and passing** the course up to 3 weeks before the semester ends; and
2. The student is unable to complete the course due to extenuating circumstances, which usually means serious illness or death in the family.

Incompletes are not given under any other circumstances and are always given at the discretion of the instructor. See the 2011-2012 catalog for further information.

**Special Accommodations:**

Students with disabilities are welcome to discuss accommodations with me. Cases will be dealt with individually.

**Important University-Wide Information:**

From the Academic Officers of The University of Montana: “All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. This Code is available for review online.

**I reserve the right to make necessary adjustments in this syllabus. You will be notified of any changes.**

**Important dates:**

Mon Feb 17	President's Day (no classes)
Fri Feb 14	Last day to add/drop/change grade option by Cyberbear
Mar 31 - April 4	Spring Break (No classes)
Mon April 7	Last day to drop or change grade options
Fri May 9	Last day change grade option by petition
Tue May 13 (10:10 – 12:10)	Final Examination (optional)