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# M 105.50: Contemporary Mathematics

Lauren S. Fern

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

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## Syllabus for MATH 105 Contemporary Mathematics

### Professor Contact:

- Course Lecturer: Lauren Fern
- Phone: 406.243.5398
- Office: Math 205B
- E-Mail: [fernl@mso.umt.edu](mailto:fernl@mso.umt.edu)

### Catalog Description:

<http://www.umt.edu/catalog/colleges-schools-programs/humanities-and-sciences/mathematical-sciences/default.php>

M 105 - Contemporary Mathematics

Credits: 3. Offered every term. Prereq. M 090 with a grade of B- or better, or M 095, or M01 placement  $\geq 19$ , or ALEKS placement  $\geq 3$ , or ACT score of 22, or SAT score of 550 (with the new test). An introduction to mathematical ideas and their impact on society. Intended for students wishing to satisfy the general education mathematics requirement.

### Learning Outcomes: Upon completion of this course, students will be able to:

1. Read mathematical material at an appropriate level, reason mathematically, and write using mathematical notation correctly.
2. Formulate a problem precisely, and interpret solutions.
3. Apply elementary probability theory to construct models of random phenomena, including the use of simulations.
4. Use elementary statistical tools such as measures of center and spread, graphical representations of data, and statistical estimation of population proportions.
5. Use tools from one or more areas of mathematics to solve theoretical or applied problems. The areas could include, but are not limited to, finance, management science (e.g., graph models for network problems), social choice and decision making (e.g., elections, voting, fair division, Congress apportionment), geometry (e.g., symmetry, tilings), or mathematical games.

### General Education Learning Outcomes:

Upon completion of the mathematical literacy requirement, a student will be able to effectively apply mathematical or statistical reasoning to a variety of applied or theoretical problems.

### 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.

### Textbook:

*Quantitative Literacy, 2nd ed.* Crauder. In an effort to help drive down the costs, your faculty member and The Bookstore have worked with the publisher to bring your course materials at a lower cost through the school's Inclusive Access program. The cost of these materials has been charged to your student account. You still have the right to Opt Out and find these materials at the market rate. If you do so, your access will be cancelled and The Bookstore will issue a refund for the fee assessed to your tuition bill. This all inclusive program will give you access to Webassign which provides an e-book as well as supplemental learning programs. There is a print on demand option as well. If you decide you need a printed copy of the textbook, you can go to The Bookstore and request a copy from the textbook department.

In order to use the online homework and other helpful features on WebAssign :

**Instructor**  
Lauren Fern

**Section**  
M105, section 50

**Class Key**  
umontana 4719 0466

To register/login to your webassign account visit: First visit the class moodle page and note the following url:

<http://webassign.net/login.html>

Link for Webassign user guide: [http://assets.cengage.com/pdf/gui\\_ewa-stu-brief-user-guide.pdf](http://assets.cengage.com/pdf/gui_ewa-stu-brief-user-guide.pdf)

**Orientation:**

M105 online utilizes Webassign as an innovative way to do homework and testing with immediate feedback; Webassign also keeps you on task and using your developing math skills. This program works best using either Firefox or Chrome. There can be glitches using internet explorer. Every section of the text covered in class has a corresponding assignment in Webassign. There is also a chapter quiz for each of the chapters covered in class and three exams throughout the semester. Note that all of the homework, quizzes and exams are grouped together; however I suggest you go in order (i.e. after completing chapter 1 homework, do the chapter 1 quiz. Similarly, after completing the chapter 2 homework and quiz, you should take exam 1, which covers both chapters 1 and 2).

All assignments and communication will take place inside the Webassign environment. Once you have registered for Webassign, you will be able to access assignments, view course materials, check your grades, utilize their resources and send email messages. I expect you to use email as your primary means of communicating with me. If you have difficulty using the software, you should consider taking this class in a different format.

This semester I have opted out of having specific due dates for the homework, tests and quizzes. You will notice that everything has a due date of May 11. This DOES NOT mean that you should wait until the last moment to work on your assignments. I assure you this is a quick way to place yourself in a less than optimal position to complete the course with any measure of success. You may ask why I have chosen to do this. There are multiple reasons. Part of the beauty of an online course is the fact that it is self-paced and can be studied on your time, not necessarily during typical school time. I also realize that we have lives going on outside of school and things may come up where one has to focus on other matters. While I can give extensions, that seemed to stress many students out, and the idea of stressing over an artificial deadline is senseless (PLEASE note that May 11 is NOT an artificial deadline!!!!). This leads to my last reason which is that I would much rather spend time helping people learn math than sitting at my computer switching due dates!

**Suggestions/Advice:**

1. It is strongly recommended that you check your campus email biweekly.
2. You should begin each chapter by reading the assigned sections in your text book and watching the corresponding section videos. Some students find it useful to watch the videos first, and then read the text (and maybe watch the videos again). Please note that I have videos posted on our Moodle page where I go through a lot of the material. Webassign also has a TON of resources that you should take advantage of.
3. Homework should be done daily. There is no time limit on homework assignments. You can attempt the same question up to 4 times and still receive full credit. Use your notes from the videos as well as your text book when needed. You will receive a 100% grade for homework if all of the questions are answered correctly. Additional online practice homework questions can be found under Chapter Contents in the Study Plan. Homework from the text is for practice purposes and will not be graded.
4. If any questions arise, PLEASE contact me. Your success in this course will depend upon the amount of time and effort you are willing to spend with the material. You should plan to spend at least six hours per week reading your text, reviewing notes, working on homework, completing quizzes, and studying for exams.
5. It is assumed that you are able to use the basic features of your calculator and that you have a working knowledge of all material covered in the prerequisite course. While I understand that some of the material was not mastered by all students in the prerequisite course or that the prerequisite course was taken years ago, it is your responsibility to seek assistance if it is needed. You should start by reading the textbook and its examples. You will find that the material comes back quickly. You are strongly encouraged to ask questions.

**Grading:**

Your course grade will be based on 3 exams( 42.86% of your grade), 6 quizzes(28.57% of your grade) and 23 homework assignments(28.57% of your grade). There is no final exam.

<i>Grade</i>	<i>Grading Scale by Percentages</i>
A	85%+
B	84-75%
C	74-60%
D	59-50%
F	Less than 50%
CR	≥ 50%

\*\*\* If you are taking this course to fulfill a general education requirement or a requirement for your major or minor, you must take it for a traditional letter grade (not CR/NCR). If you decide anyhow to take this course with CR/NCR grading, a grade of “D-“is considered passing and will earn you credit for the course, BUT it will NOT fulfill your general education requirement NOR any requirement for your major or minor.\*\*\*

**Add/Drop Policy:**

The last day to add/drop or change grading option to Audit by Cyberbear is **2/9**. The last day to change sections and to change grading options is **4/2**. This is also the last day to drop. Changes after this deadline and until **5/4** must be done by Petition to Drop/Add after deadline and approved by me, your advisor and the appropriate Dean. Approval requires genuine extenuating circumstances as listed in the university catalog.

Extenuating circumstances are:

1. Missing a substantial number of classes due to illness, accident or family emergency.
2. A change in work schedule that makes it impossible to attend class or devote adequate time to the course.
3. Registration in the course by error and never attending class.

Reasons that are not satisfactory include:

1. Forgetting to turn in a drop slip.
2. Protecting your grade point average.

**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
  1. 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 2017-2018 catalog for further information.

**Misconduct:**

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](#). Available for review online at <http://www.umt.edu/SA/VPSA/index.cfm/page/1321>.

Cheating will not be tolerated! You are expected to personally complete any work that is submitted with your name on it. While I encourage students to discuss homework solutions, you should not discuss particular solutions to questions that will be graded. Instead, find a similar question to discuss or use an example from the textbook or notes. It is never acceptable to copy another person’s work or to allow another student to copy your work.

**Special Accommodations:**

Students with disabilities will receive reasonable accommodations in this online course. To request course modifications, please contact me as soon as possible. I will work with you and Disability Services in the accommodation process. For more information, visit the [Disability Services website](#) or call 406.243.2243 (Voice/Text).