University of Montana ScholarWorks at University of Montana

Syllabi

Course Syllabi

Spring 2-1-2019

M 105.02: Contemporary Mathematics

Lauren S. Fern University of Montana - Missoula, lauren.fern@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

Fern, Lauren S., "M 105.02: Contemporary Mathematics" (2019). *Syllabi*. 10210. https://scholarworks.umt.edu/syllabi/10210

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.

Mathematics 105 – Section 02 Grading and Policies Spring 2019

Contact Professor:

- ✓ **Lecturer:** Lauren Fern
- ✓ Office: Math 205B
- ✓ Phone: 243.5398
- ✓ Email: fernl@mso.umt.edu
- ✓ **Tutoring:** Free tutoring is available at the Math Learning Center located in the basement of the Math Building. Hours will be posted on the website and announced once they have been determined.

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 C or better, or M 095, or M01 placement \geq 17, or ALEKS placement \geq 3, or ACT score of 22, or SAT score of 550 (with the new test), or completion of the M105 EdReady module. 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.

Text:

Mathematical Excursions, 4 ed. Auffman et al. Access to Webassign and a calculator are also required.

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. Please keep in mind that you will still need to purchase access to Webassign for the online homework component of this class. 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. **Please note that our course ID is umontana 5467 7498.**

To register/login to your Webassign account, please go to the class moodle page and follow the instructions on the attached page.

Grading:

on the following:
Quizzes/Mini-tests
Homework
Projects
Participation/Attendance

Please note that this class is highly interactive with nearly daily in-class activities, hence attendance and participation are essential for success in the class. You are expected to be in class every day it meets.

All quizzes are closed book, but calculators are allowed and any relevant formulas will be provided. When a quiz is returned, there is one week from the date of return for contesting the grading. After that time period the grade will be accepted as final.

Grade	Grading Scale by Percentages
А	90%+
В	89-80%
С	79-65%
D	64-55%
F	Less than 55%
CR	

*** 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.***

Make-ups: It is your responsibility to notify me as soon as you know you will miss any quiz and it must be either prior to or within 24 hours of the quiz.

Add/Drop Policy:

The last day to add/drop or change grading option to Audit by Cyberbear is **1/31**. The last day to change sections and to change grading options is **3/15**. This is also the last day to drop. Changes after this deadline and until **4/26** 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 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 2018-2019 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 <u>Student Conduct Code</u>. Available for review online at http://www.umt.edu/SA/VPSA/index.cfm/page/1321

Disability modifications:

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and <u>Disability Services for Students</u>. If you think you may have a disability adversely affecting your academic performance, and you have not already registered with Disability Services, please contact Disability Services in Lommasson Center 154 or call 406.243.2243. I will work with you and Disability Services to provide an appropriate modification.

Important University-Wide Info and Dates:

- Monday, 21 January: Martin Luther King Day. No school.
- Monday, 18 February: Presidents Day. No school.
- 25-29 March: Spring Break. No school.

Student expectations:

Attendance: Attendance is taken daily and is a required component of the course. If you must be absent, please send me an email to notify me that you will not be in class. In addition, you are responsible for obtaining missed assignments and announcements, and being prepared for the next class.

Email: Students are expected to maintain an active email account and to check email daily.

Preparation: Students are expected to come to all classes prepared, with assignments complete, even if they have been absent. **Electronics:** Students are expected to keep all phones and other personal electronics away/off during class. Calculators and laptops being used for class work will be acceptable.

Attendance/Participation: Students are expected to attend every class, to be on time for class, and to stay for the entire class period. Students who miss class are expected to complete the day's work and stay on schedule. Attendance is very important in this course and is graded daily. The only excused absences will be those due to required participation in university-sanctioned events such as athletic competitions, musical performances, and class trips. Students are expected to participate in all class activities, including individual work, group work, and work shared with the rest of the class. Full class participation involves bringing your textbook and calculator daily, staying on task, contributing to group activities, fostering a positive learning environment, answering questions when called upon by your instructor, and keeping all electronic devices away. Participation is very important in this course and is graded daily. *Sometimes you may think that you don't have time to attend class due to other matters, but past experience bas shown that students who miss class actually spend far more than 50 minutes making up what they missed.*

A significant portion of class time will be spent working in small groups. The benefit of discussion while working in small groups to develop and use mathematical concepts has been shown to increase success rates. Brain research has shown that sharing multiple viewpoints and verbally articulating questions and answers strengthens the connections your brain makes between concepts. Strong connections improve your ability to recall and use concepts. Even if you think you already understand a concept, explaining your understanding to others benefits others while strengthening your own understanding. If you ask a question of your group or class, you are providing an opportunity for good discussion, so don't be shy about asking questions! The only bad question is one that is left unasked!

Resources:

Office Hours: My office hours are for you to seek direct help from me. I am available at the times listed above, and other times by appointment. Please come see me with any concerns you have during the semester, especially if there is something going on that is having an impact on your ability to succeed in the class. You can also come see me during these hours for help on math, just as you would get help in the math lab. Don't wait until you are way behind to get help! It is strongly recommended that you communicate with me as much as possible so that we can work together to get you through the course successfully.

The Math Department has tutors available at the Math Learning Center located in the basement of the Math Building Monday – Thursday from 10-4 and Friday from 10-1. There are also evening hours at the UC Commons on Sunday-Thursday. I am also available by appointment to help you out: either in person, by phone or email!

Student: As a student, you may experience a range of challenges that can interfere with learning, such as health: strained relationships, increased anxiety, substance abuse, feeling down, difficulty concentrating, and/or lack of motivation. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. Counseling is available and treatment does help. The professional staff at Curry Health Center offers free confidential counseling to full-time students. I am always happy to help you find the resources you need.