

Math 133
Section 2

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Office Hours: 8:45 – 9:45 MWF and by appointment

Course Coordinator: Matt Roscoe **Office:** Math 213 **Phone:** 243-6689 e-mail: matt.roscoe@umontana.edu

Text: Mathematics for Elementary Teachers (4th Edition) by Beckmann, Sybilla (Pearson Education Inc., 2014) with MyMathLab access

Course Content: Chapters 10-14

U 133 Mathematics for Elementary Teachers 3cr.

Offered every semester. Open only to education majors who have passed MATH 132 with at least a C-. The course description for all math classes can be found at:

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

Class Web Page: <http://www.math.umt.edu/133>

Grading:

Since this course is required for your major, you must select the **traditional grade** rather than **Credit/no credit**. You must earn a C- or better in this course to pass the requirement for the School of Education. You may change to Credit/No Credit up to the last day of class. Credit will be awarded to students earning a D- or better, however, if you choose this option the grade cannot be counted towards the School of Education requirement nor the UM graduation requirement. **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. Final grade will be determined using:**

On-line Homework	10%
Quizzes	10%
Text Homework	20%
Math Trail	10%
Chapter Tests	30%
Final (Comprehensive)	20%

Grades will be assigned using the scale:

A (93-100), A- (90-92), B+ (87-89), B (83-86), B- (80-83), C+ (77-79), C (73-76), C- (70-72), D (60-69)

Free Tutoring: No cost tutoring is available at designated times at **math@Mansfield**

Homework:

The learning of mathematics requires participation in the process of doing mathematics. 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 without prior approval.**

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.

Materials needed:

Calculator, textbook, writing instrument, ruler with metric scale, compass, protractor, computer access and paper. **If you have a graphing calculator, you may not share it with other members of the class on quizzes or tests.**

Dynamic Geometry:

You will have computer assignments using Geogebra. You can download the software to your computer using the URL: www.geogebra.org/cms/en/download

MyMathLab:

The course will utilize the resource available on MyMathLab. The students taking Math 132 last semester on campus may already have an account. To get access to the resources for Math 133 you need to go to **pearsonmylabandmastering.com**. Under Register, click **Student** and enter your course instructor's **coursed ID: lutz38834**

Overview:

This course is designed to build a foundation of mathematics content preparing you to teach all aspects of geometry and measurement in the elementary classroom. This includes working with the concepts of geometric figures: congruence, similarity, translation, rotation, reflection, symmetries, tessellation, constructions, coordinates; and measurement concepts: linear measure, area, volume, mass, temperature.

Learning Outcomes:

Upon successful completion of this course, a student will be able to:

Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships;

Apply transformations and use symmetry to analyze mathematical situations;

Use visualization, spatial reasoning, and geometric modeling to solve problems;

Describe and apply measurable attributes of objects and the units, systems, and processes of measurement;

Apply appropriate techniques, tools and formulas to determine measurements for length, area, and volume;

Develop a deep understanding of the mathematical concepts needed for effective teaching by developing the ability to examine and explain underlying mathematical structure in using multiple geometric representations and tools for solving problems.

Participation:

As potential classroom teachers, your charge will be to help **ALL** students learn mathematics. Not all students may learn in the same way that you do. Leaving our own “comfort zone” to learn in a way that may be unfamiliar to you builds the knowledge and background for teaching effectively. I expect each of you will engage in the problems we do in class in the manner in which they are presented for the sake of truly becoming a teacher of mathematics.

Special Accommodations:

The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students. 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 Lommason Center 154 or (406) 243-2243. I will work with you and Disability Services to provide an appropriate modification.

Incomplete (I) Grades:

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

The student must have been in **attendance and passing** the course up to 3 weeks before the semester ends; and 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 2014-2015 catalog for further information

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 at the following web address: http://life.umt.edu/vpsa/student_conduct.php

Holidays and Finals:

Mon Feb 15	President’s Day (no classes)
Mon Mar 28	Last day to drop with instructor and advisor signatures
Apr 4 – Apr 8	Spring break (no classes)
Fri May 6 (4:30 pm)	Last Day to petition for a drop or change of grading option
Thu May 12 (10:10 – 12:10)	Final Examination

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