

MATHEMATICS FOR ELEMENTARY TEACHERS
MATHEMATICS 136 - SECTION 1 - CRN 30061
LA 235 MTWF 9:10-10:00AM

INSTRUCTOR Matt Roscoe
Office: Math 205A
Phone: 406-243-6689
Email: roscoem@mso.umt.edu
Office Hours: 11AM-12NOON MTWF or by appointment

COURSE COORDINATOR Bonnie Spence
Office: Mathematics 004A
Phone: 406-243-4808
Email: bonnie.spence@umontana.edu

DESCRIPTION Mathematics 136 - Mathematics for Elementary Teachers II is a four credit course open to elementary education majors. The prerequisite for the course is successful completion of Math 135. Topics include introductory geometry, geometric constructions, congruence, similarity, measurement, coordinate geometry and an introduction to computer geometry.

COURSE LEARNING GOALS

1. To identify and solve problems in elementary geometry
2. To model the logic of arguments involving parallelism, congruence, and similarity
3. To use basic measurement to approach problems involving length, area, and volume.
4. To explore, conjecture, and prove mathematical ideas and theorems involving geometry.
5. To perform classical compass-straightedge constructions
6. To develop a facility with geometric theorems and proofs through hands-on and computer explorations

TEXT *A Problem Solving Approach to Mathematics for Elementary Teachers, 11th Edition* (Billstein, Libeskind, and Lott)

MATERIALS Textbook, Quad Ruled Homework Paper, Calculator (A graphing calculator is recommended but not required, classroom demonstrations will be given using the Texas Instruments TI-84), Compass, Computer Storage Device (USB Thumb Drive)

GRADING	3 Mid-Semester Exams, 100 Points Each	300	Points
	15 Highest Homework Scores, 4 Points Each	60	Points
	5 Highest Computer Lab Assignments, 12 Points Each	60	Points
	4 Projects, 20 Points Each	100	Points
	Final Exam	200	Points
	Total	720	Points

GRADING SCALE	A	98-100	B+	88-89	C+	78-79	D+	68-69
	A	93-97	B	83-87	C	73-77	D	63-67
	A-	90-92	B-	80-82	C-	70-72	D-	60-62

ACADEMIC HONESTY The following is an excerpt from the University of Montana Student Conduct Code:

“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. The Code is available for review online at <http://www.umt.edu/SA/vpsa/index.cfm/page/2585>.”

Please be aware of the expectations for academic student conduct. If you have any questions related to this code, please ask.

ACCOMODATION Please let me know at the beginning of the semester if you need accommodations for learning in my classroom or through Disability Services for Students (DSS). I am happy to help facilitate these needs.

ADMINISTRATIVE POLICIES You must earn a C- or better in this course to pass the requirement in the School of Education. You may change to Credit/No Credit up the last day of the 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.

IMPORTANT DATES February 15th is the last day to drop or add the course using Cyberbear. April 8th is the last day to drop with instructor and advisor signatures. May 10th is the last day to drop the course or change grading option using a late drop form. Acceptable reasons for a late drop are listed in the university catalog and include reasons such as accident, illness, family emergency or a change in work schedule. The following examples are not considered sufficient for a late drop: protecting GPA, forgetting to turn in the change slip, losing financial aid, losing eligibility to engage in sports.

SEMESTER SCHEDULE

Monday	Tuesday	Wednesday	Friday
28-Jan Section 11-1	29-Jan Section 11-1	30-Jan Section 11-2	1-Feb Project 1
4-Feb Section 11-2	5-Feb Section 11-3	6-Feb Section 11-3	8-Feb LAB 1
11-Feb Section 11-4	12-Feb Section 11-4	13-Feb Test Review	15-Feb EXAM 1-CHAP 11
18-Feb President's Day	19-Feb Section 12-1	20-Feb Section 12-1	22-Feb Project 2
25-Feb Section 12-2	26-Feb Section 12-2	27-Feb Section 12-2	1-Mar LAB 2
4-Mar Section 12-3	5-Mar Section 12-3	6-Mar Section 12-4	8-Mar LAB 3
11-Mar Section 12-4	12-Mar Section 12-4	13-Mar Test Review	15-Mar EXAM 2-CHAP 12
18-Mar Section 13-1	19-Mar Section 13-1	20-Mar Section 13-2	22-Mar Project 3
25-Mar Section 13-2	26-Mar Section 13-2	27-Mar Section 13-3	29-Mar LAB 4
1-Apr Spring Break	2-Apr Spring Break	3-Apr Spring Break	5-Apr Spring Break
8-Apr Section 13-3	9-Apr Section 13-3	10-Apr Section 13-4	12-Apr LAB 5
15-Apr Section 13-4	16-Apr Test Review	17-Apr Section 14-1	19-Apr EXAM 3-CHAP 13
22-Apr Section 14-1	23-Apr Section 14-2	24-Apr Section 14-2	26-Apr Project 4
29-Apr Section 14-3	30-Apr Section 14-3	1-May Section 14-4	3-May LAB 6
6-May Section 14-4	7-May Section 14-5	8-May Section 14-5	10-May Final Review

OTHER IMPORTANT DATES

- February 15 - Last day to add/drop/change courses via Cyberbear
- April 8 - Last day to add/drop/change courses using paper form
- May 10 - Last day to make a petition for add/drop/change petitions in cases of sickness, family emergency, or change in work schedule.
- FINAL EXAM: 10:10-12:10 Friday, May 17th

Mathematics 136 - Assigned Homework

Chapter	Assessment B	Mathematical Connections	Due Date
11-1	2, 3, 5, 6, 7, 9, 11, 15	9, TIMMS, NAEP	1-Feb
11-2	1, 3, 4, 8, 13, 15, 16, 17, 20	8, TIMMS, NAEP	6-Feb
11-3	1, 4, 5, 6, 7, 9, 11, 12	9, TIMMS, NAEP	11-Feb
11-4	2, 3, 4, 8, 9, 10, 12, 13, 15	15, TIMMS, NAEP	15-Feb
12-1	3, 4, 5, 6, 8, 14, 15, 16	16, TIMMS, NAEP	25-Feb
12-2	1, 2, 3, 5, 6, 7, 16, 19	9, TIMMS	4-Mar
12-3	1, 3, 4, 6, 13, 14, 16	12	8-Mar
12-4	2, 3, 4, 5, 8, 11, 12, 15	11, TIMMS, NAEP	15-Mar
13-1	3, 4, 5, 6, 8, 13, 14, 20, 24	9, TIMMS	22-Mar
13-2	1, 2, 5, 10, 11, 12, 13, 16, 19	10, NAEP	29-Mar
13-3	1, 2, 3, 4, 6, 7, 8, 9, 10	9	12-Apr
13-4	1, 2, 3, 4, 7, 8, 9	10, NAEP	17-Apr
14-1	4, 5, 6, 7, 11, 15, 16, 18, 19, 21, 24	12, TIMMS, NAEP	24-Apr
14-2	1, 2, 3, 5, 7, 9, 16, 17, 21, 24, 25	11, NAEP	29-Apr
14-3	1, 3, 4, 5, 6, 7, 9, 10, 12, 13	11, NAEP	3-May
14-4	1, 2, 3, 4, 6, 7, 11, 12, 13, 14, 16	8, NAEP	8-May
14-5	2, 4, 10, 11, 13, 14, 16, 22, 23, 26, 27	10, TIMMS, NAEP	10-May

Homework Philosophy

I view homework assignments as *formative* assessments. Formative assessments are meant to give students feedback so that adjustments in learning can be made to improve learning outcomes measured in *summative* assessments (i.e. mid-semester and final exams). As such, I expect you to correct your own homework assignments before handing them in for credit. This arrangement gives you immediate feedback on your understanding of course content and the opportunity to correct your misunderstandings and errors in thinking.

Homework Policies

- Corrected homework for each chapter is due at the start of the class period on the date indicated above. I do not accept late homework for any reason. There are 17 homework assignments; I will drop the two lowest scores at the end of the semester to calculate your final homework grade. Use your two drops wisely.
- Homework must be submitted on quad ruled loose leaf paper without frayed edges, homework must be done in pencil, and multiple pages must be neatly stapled.
- Homework solution keys will be provided on our class Moodle site at 5PM on the night before the homework is due in class. Use a colored pen to correct your homework and make notes to yourself.