

GEOMETRY AND MEASUREMENT FOR ELEMENTARY SCHOOL TEACHERS
MATHEMATICS 133 SECTION 2
CRN 73157

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WEBPAGE <http://umonline.unt.edu/>

- GOALS Upon completion of this course, a student will be able to:
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships;
 2. Apply transformations and use symmetry to analyze mathematical situations;
 3. Use visualization, spatial reasoning, and geometric modeling to solve problems;
 4. Describe and apply measurable attributes of objects and the units, systems, and processes of measurement;
 5. Apply appropriate techniques, tools and formulas to determine measurements for length, area, and volume;
 6. 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.

TEXT Mathematics for Elementary School Teachers, 5th Edition (Sybilla Beckmann)

LETTER GRADE Your letter grade in the course will be determined by assessment of your *understanding* of predefined learning standards. For each standard, I will write an assessment that will provide me with the ability to assess your understanding on a 4-point scale according to:

Score	Student demonstrates...	Classification
4	...mastery beyond the learning target	Beyond Proficient
3	...full mastery of the learning target	Proficient
2	...partial mastery of the learning target	Nearing Proficient
1	...minimal mastery of the learning target	Novice
0	...no mastery of the learning target	Beginner

Each mid-semester exam will assess 3 or 4 standards. You will have the opportunity to “challenge” your first assessment results one time during the semester. Each project will assess 1 standard. You will not have the opportunity to challenge any project assessment results. Let S be your average score over all assessments, then, your letter grade in the course will be determined according to:

$$\begin{aligned}
 3.5 < S \leq 4.0 &\Rightarrow A \\
 3.00 < S \leq 3.50 &\Rightarrow B \\
 2.50 < S \leq 3.00 &\Rightarrow C \\
 2.00 < S \leq 2.50 &\Rightarrow D \\
 0 < S \leq 2.00 &\Rightarrow F
 \end{aligned}$$

± GRADE Your plus/minus grade will be determined by assessment of your *effort* in the course. This aspect will be measured through the collection of homework practice and reading quizzes. Let T be the proportion of homework practice and reading quizzes earned out of the total possible, then, your plus-minus grade will be assigned according to:

$$\begin{aligned} 0.90 &\leq T < 1.00 &\Rightarrow &+ \\ 0.80 &\leq T < 0.90 &\Rightarrow & \\ 0 &\leq T < 0.80 &\Rightarrow &- \end{aligned}$$

Please note that there is no “A+” grade given at the University of Montana.

HONESTY 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 the following web address:

<http://www.umt.edu/student-affairs/community-standards/>.

ACCOMMODATION The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors and Disability Services for Students (DSS). If you think that you may have a disability adversely affecting your academic performance, and you have not already registered with DSS, please contact DSS in Lommassen 154. I will work with you and DSS to provide an appropriate accommodation.

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.

DATES September 16 is the last day to drop or add the course using Cyberbear. October 28 is the last day to drop with instructor and advisor signatures (W appears on transcript). December 6 is the last day to drop the course or change grading option using a late drop form (WP/WF appears on transcript). Acceptable reasons for a late drop are listed in the university catalog and are limited to: 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	Wednesday	Friday
Aug 26 10-1	Aug 28 10-1	Aug 30 10-2
Sept 2 Labor Day	Sept 4 10-3	Sept 6 10-4
Sept 9 10-4	Sept 11 Lab	Sept 13 Assessment
Sept 16 11-1	Sept 18 11-2	Sept 20 11-3
Sept 23 11-4	Sept 25 Lab	Sept 27 Assessment
Sept 30 12-1	Oct 2 12-2	Oct 4 12-3
Oct 7 12-4	Oct 9 12-4	Oct 11 12-5
Oct 14 12-6	Oct 16 12-7	Oct 18 12-8
Oct 21 12-9	Oct 23 Lab	Oct 25 Assessment
Oct 28 13-1	Oct 30 13-2	Nov 01 13-3
Nov 04 13-4	Nov 06 Lab	Nov 08 Assessment
Nov 11 Veteran's Day	Nov 13 14-1	Nov 15 14-2
Nov 18 14-3	Nov 20 14-4	Nov 22 14-5
Nov 25 14-6	Nov 27 Thanksgiving	Nov 29 Thanksgiving
Dec 2 14-7	Dec 4 Lab	Dec 6 Lab
<p>Final Assessment</p> <p>Alternative Date: Tuesday, Dec 10, 5:30-7:30 at the NULH</p> <p>Friday, December 13, 10:10-12:10</p>		

HOMEWORK ASSIGNMENTS

Section	Problems for Section	Due Date
10.1	2,3,7,8,11	Sept 4
10.2	6,	Sept 6
10.3	1,3	Sept 9
10.4	3,5,7,9,12,16	Sept 13
11.1	2,5	Sept 20
11.2	1,4,6	Sept 23
11.3	3,5	Sept 25
11.4	1,3,7,9,12,14,17,19	Sept 27
12.1	1,3,5	Oct 4
12.2	2,3,4,7	Oct 7
12.3	2,3,4,5,8,9,11	Oct 9
12.4	2,4,5,9,10,11,13	Oct 14
12.5	1,3,4,6,7	Oct 16
12.6	2,3,5,6,8	Oct 18
12.7	1,3	Oct 21
12.8	4,6,8,10,12	Oct 23
12.9	1,2,3,7	Oct 25
13.1	2,3,4,7,8	Nov 1
13.2	3,4,7,11,13,15	Nov 4
13.3	2,3,7,11,12,14,15,18,22	Nov 6
13.4	1,2,3	Nov 8
14.1	1,2,3,4,5,8,17,18	Nov 18
14.2	2,4,7,8,12	Nov 20
14.3	1,2,7,8,9,10,	Nov 22
14.4	1,4,5,6,7,8	Nov 25
14.5	2,3,4,5,8,9	Dec 2
14.6	1,2,3,5,6,8,9	Dec 4
14.7	1,4,5,6,7	Dec 6

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
- 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 webpage. Use a colored pen to correct your homework and make notes to yourself. Your homework effort will only be counted if every problem has been attempted and corrected.