



COURSE SYLLABUS

MATH 240 – College Geometry

Self-Paced Course - Web Based Format Option

Session begins on the 1st day of enrollment month and ends on the last day of the 6th month

Instructor Information

Instructor Name: [faculty member]

Contact Information: For questions, comments, or concerns please contact the Self-Paced Degree Program office:

Telephone: 563-425-5200 or 1-800-553-4150

E-mail: selfpaced@uiu.edu

Address: Upper Iowa University, PO Box 1857, Fayette, IA 52142

Course Description

Semester Credits: 3

Catalog Course Description: This course provides a rigorous study of Euclidean geometry and related geometric systems. Students examine axiomatic structures, construct deductive proofs, perform classical constructions, and analyze properties of one-, two-, and three-dimensional figures. Topics include measurement, coordinate geometry, transformations, symmetry, tessellations, trigonometric applications, finite and non-Euclidean geometries, and two-dimensional representations of three-dimensional objects. Dynamic geometry software and graphing technology are used to explore, conjecture, verify, and communicate geometric relationships.

Prerequisites: MATH 120

Credit Hours: As a requirement of HLC Accreditation, all UIU courses, regardless of meeting schedule or instructional mode, follow the Federal Credit Hour Definition. As such, each credit hour earned at UIU is equivalent to a minimum of 45 hours of student engagement.

For more information on how specific instructional modes meet this requirement, please see *UIU's Policy Guidelines for Instructional Time Expectations*: [UIU Policies](#).

Course Materials

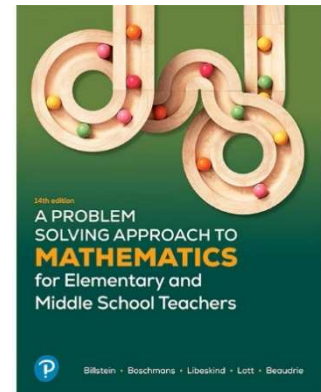
Required Textbooks

Multi Term MyLab Math with Pearson eText Access Code *for A Problem-Solving Approach to Mathematics for Elementary and Middle School Teachers*, 14th edition

by Billstein, Boschmans, Libeskind, Lott, and Beaudrie

Publisher: Pearson

ISBN: 9780138243128



Required Resources

Protractor

Straightedge

Typically, this is just a ruler where any scaling markings will not be used

Reflection Device

Tracing paper is acceptable, as is a geometry reflection device such as a Mira or GeoMirror.

MyMathLab Access Code

When you first log in to MyMathLab, you will be required to register for an account.

- If you have already purchased an access code or license number, you may enter that information prior to registering your account. Make sure the “I have an Access Code or License Number” box is selected and hit continue. You will then enter your access code or License number and select validate.
- If you are waiting to receive your access code or license number, you may request temporary access for 10 days. If you do not enter an access code or license number within 10 days, you will be locked out of your account.

If you have any questions about your Pearson account, please use AskPearson:
<https://support.pearson.com/getsupport/>

Ordering Textbooks

Purchase your textbook through the online university bookstore, [BNC Virtual](#), or by phone at (800) 325-3252.

Respondus LockDown Browser

You will need to download and install the program, [Respondus LockDown Browser](#) to take the Quizzes, Module Exams and the Final Exam.

To use Respondus LockDown Browser you will need to have access to a reliable up-to-date Windows or Mac operating system and a reliable internet connection.

Recommended Resources

- A circular protractor
- A scientific calculator – TI 30XIIS is recommended.

You may use a scientific calculator in this course. The preferred calculator is TI-30XIIS.

If you have a different calculator you wish to use, you must get the calculator approved by the instructor prior to the first quiz. You may not use a graphing calculator or any non-approved calculator on any quizzes or exams.

UIU Tutor Center

- Email: tutorcenter@uiu.edu
- Phone: (563) 425-5272

UIU Academic Success

- Email: academicsuccess@uiu.edu
- Phone: (563) 425-5264

Course Outcomes

Students will be able to:

1. Describe and analyze the axiomatic structure of Euclidean geometry, including undefined terms, definitions, postulates, and theorems, and explain how these components relate to the broader structure of mathematical systems.
2. Construct formal deductive proofs of geometric theorems using direct proof, indirect proof, and proof by contradiction, demonstrating logical reasoning within an axiomatic framework.
3. Perform and justify classical geometric constructions using compass, straightedge, and reflection devices, and verify constructions using coordinate geometry methods.
4. Analyze properties and relationships of one-, two-, and three-dimensional geometric objects, including lines, angles, triangles, polygons, circles, prisms, cylinders, cones, and spheres.
5. Derive and apply formulas for perimeter, area, surface area, and volume of geometric figures, and use dimensional analysis to solve measurement problems involving rates of change.
6. Apply coordinate geometry techniques to prove geometric relationships, including distance, midpoint, slope, parallelism, perpendicularity, and equations of circles and conic sections.
7. Analyze and apply geometric transformations (translations, rotations, reflections, dilations) to demonstrate congruence, similarity, and symmetry of figures, and represent transformations using matrices.
8. Analyze the relationship among three-dimensional figures and their two-dimensional representations, including projections, cross-sections, and nets, and use these representations to solve problems.
9. Describe and compare properties of finite geometries and non-Euclidean geometries (e.g., spherical, hyperbolic) and explain how these systems differ from Euclidean geometry in their treatment of parallels and angle sums.
10. Use symmetry concepts to describe tessellations and demonstrate how tessellations can illustrate geometric concepts, properties, and relationships.
11. Apply the Pythagorean theorem and trigonometric relationships to solve problems involving right and non-right triangles, including applications in measurement and real-world contexts.
12. Use dynamic geometry software and graphing technology to explore, conjecture, and verify geometric concepts and properties.

Course Requirements and Grading Criteria

Course Requirements

1. Review the **entire** course syllabus before beginning the course. Be sure you understand the course procedures and objectives. Procedures do change, so please review **ALL** requirements and policies even if this is not your first course including, but not limited to, administrative withdrawal. Your course status will be affected if policies are not followed.
2. Students who develop a regular time schedule and set goals for unit completion are most successful in completing courses within a specific timeframe.
3. The feedback you receive from the instructor of your work is **critical** to your success on subsequent lessons. These comments allow you to improve and modify the next units if necessary.
4. Assignments are submitted using uiuLearn. Please complete all assignments and modules in order.
5. If the information in your syllabus is not clear or if units are not graded within a reasonable period of time, please contact your instructor using uiuLearn's email tool, if that doesn't work contact the Self-Paced Program office. We would like the opportunity to address concerns, however, we may not know unless we hear from YOU!
6. ALWAYS keep a copy of your completed work when submitting it for grading.

Grading Criteria

Activity	Points
Pen-and-Paper Assignments (uiuLearn)	10
Quizzes (Hawkes)	10
Module Exams (Hawkes)	30
Section Homework (Hawkes)	20
Final Comprehensive Exam (Hawkes)	30
Total	100

Grading Scale

Letter Grade	Percent	Letter Grade	Percent	Letter Grade	Percent
A	100-93	B-	81-80	D+	68-69
A-	92-90	C+	79-78	D	64-67
B+	89-88	C	77-72	D-	60-63
B	87-82	C-	71-72	F	59-0

Grades and Feedback

This syllabus contains all assignments necessary for completing your self-paced course. Submit your completed assignments via uiuLearn.

If you need academic assistance with the course, please feel free to contact the Self-Paced Degree Program office.

To protect the integrity of the final assessment/exam, you only receive your final grade on the exam; you do not receive any feedback on the answers to the exam questions. The answers to the questions on the exam are not shared with students. Please remember to stay academically honest.

Turnitin

Turnitin is a tool for both teachers and students to ensure academic integrity by checking the originality of submitted papers to avoid issues of plagiarism and academic dishonesty. Students should be aware that Turnitin scans submitted work and compares it to ALL other sources on file.

Extension Policy

Students will be allowed to request an extension and receive an 'X' (extension grade) at the end of their original six-month enrollment period if:

- A minimum of one assignment has been received for grading per guidelines **AND**
- All course units and exams are not completed and submitted **OR**
- A course withdrawal has not been initiated.

Note: There is a one-time fee for a self-paced extension per course. Refer to the [Prereqcourses.com](https://www.prereqcourses.com) website for current fees. The request for an extension must be submitted

no earlier than one month before the end of the course and no later than a week before the end of the course.

Extension grade details

- When the extension is granted and an “X” grade is issued, the student will receive a four-month enrollment period to complete the course.
- Students do not have the option to withdraw from a course after the initial six-month enrollment period.
- An ‘X’ grade posted to the student’s official record will be replaced with a final letter grade; however, the extension will remain on the official transcript as a notation.
- If the course is not completed by the end of the extension period, the instructor will assign a final grade (A-F) based on work completed in relation to the total course requirements.
- If credit is not earned by the end of the extension period, students can re-enroll and repeat the entire course for credit.

Note: Students are not reported as enrolled during the extension period and are not eligible for student loan deferment. No more than one extension will be granted.

Course Schedule

Unit 1

Sections 9.1-3	Read Course Syllabus and ‘About the Instructor’
Planar features	Submit Student Introduction
Polygons	Upload Unit 1 Pen-and-Paper Assignment to uiuLearn
Parallelism & Perpendicularity	MyLab: Study Plan prerequisites for Quizzes 1 - 14
	MyLab: Quizzes 1 - 14

Unit 2

Sections 9.4, 10-1-3	Review for Module I Exam
Congruency	Upload Unit 2 Pen-and-Paper Assignment to uiuLearn
Similarity	MyLab: Study Plan prerequisites for Quizzes 15 - 27
Proofs	MyLab: Quizzes 15 - 27

Unit 3

Section 10.4	Take Module I Exam in MyLab with Lockdown browser
Similarity	Upload Unit 3 Pen-and-Paper Assignment to uiuLearn
Proportions in Triangles	MyLab: Study Plan prerequisites for Quizzes 28 - 29
	MyLab: Quizzes 28 - 29

Unit 4

Sections 10.D, 11.1-3	Upload Unit 4 Pen-and-Paper Assignment to uiuLearn
Trigonometry	MyLab: Study Plan prerequisites for Quizzes 30 - 46
Circles	MyLab: Quizzes 30 - 46

Unit 5

Sections 11.4-5	Review for Module II Exam
Surface Areas	Upload Unit 5 Pen-and-Paper Assignment to uiuLearn
Volumes	MyLab: Study Plan prerequisites for Quizzes 47 - 56
	MyLab: Quizzes 47 - 56

Unit 6

12.1-3	Review for Module III Exam
Translations	Take Module II Exam in MyLab with Respondus
Rotations	Upload Unit 6 Pen-and-Paper Assignment to uiuLearn
Tessellations	MyLab: Study Plan prerequisites for Quizzes 57 - 64
	MyLab: Quizzes 57 - 64

Unit 7

Module G	Review for the Final Exam
<i>GeoGebra</i>	Take Module III Exam in MyLab with Respondus
	Upload Unit 7 Pen-and-Paper Assignment to uiuLearn
	MyMathLab: Certify in Lessons
	MyMathLab: Quizzes

Unit 8

Review and Final Exam	Upload Unit 8 Pen-and-Paper Assignment to uiuLearn
	Take Final Exam in MyLab with Respondus
	<i>(Comprehensive, 120 minutes)</i>

Course Expectations

Artificial Intelligence

For the duration of this course, the use of generative artificial intelligence (such as ChatGPT) in assignments is strictly prohibited. Assignments are opportunities for personal growth, critical thinking, and applying your acquired knowledge. Your individual effort and creativity are essential in demonstrating your understanding of the course material. Dependence on AI undermines these objectives and compromises the integrity of the learning process. I appreciate your commitment to academic honesty and dedication to upholding this course's principles by refraining from using Generative AI in your assignments.

Late Work

Late work is not accepted without obtaining an official extension ('X' grade) from the University. See the syllabus policy on Extensions for details.

Professional Writing and Speaking Guidelines

Communications in class and online should follow the Student Conduct and Discipline, Respect for the University Environment, and Code of Student Responsibility in the [Student Handbook](#) (pg. 20 and 21). Respect the opinions of others using appropriate language and communications.

University Policies

Withdrawal (W)

Students who have registered for this course through our partnership prereqcourses.com are required to follow the withdrawal policy outlined on the partnership website. Please refer to the partnership site for official withdrawal procedures, deadlines, and associated fees.

For students enrolled through the prereqcourses.com partnership, no refund is allowed after the first two weeks.

Students who withdraw from a course prior to submitting the first assignment, or who are administratively withdrawn for non-submission of assignments, will be charged an administrative fee.

Administrative Withdrawal (AW)

A grade of AW (administrative withdrawal) is recorded for any course from which a student is administratively withdrawn. **At least one complete assignment/unit must be received and verified by the instructor within the first 60 days of the enrollment period or the student will be administratively withdrawn from the course.** Students who are administratively withdrawn for non-submission of assignments, will be charged an administrative fee. See website for current fees for re-enrollment.

Academic Accommodations

It is the policy of Upper Iowa University to ensure equal access to educational and co-curricular activities to students with disabilities as mandated by the Americans with Disabilities Act Amendments Act (ADAAA) and Section 504 of the Rehabilitation Act of 1973. A student seeking accommodations should contact the Director of Student Accessibility Services as early in the session as possible. In order to receive accommodations, students are required to disclose their disability to the Director by completing an application for services that can be found on the Student Accessibility Webpage. In addition to the application packet, the student is required to submit supporting documentation. Submit these to the Student Accessibility Services Office either in person or by email/Fax. A brief interview, in-person, by phone or virtually, with the Director will confirm or deny the accommodations requested. The Student Accessibility Services Office will email accommodation letters to the appropriate professor, the student, and the student's advisor. Additionally, students should work cooperatively with their instructors throughout the session to make sure that their accommodations are appropriate and effective.

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Contact the Director at (563) 425-5949, accessibility@uiu.edu or stop by the office on the 2nd floor of the Student Center, Office of Student Life, Room 229.

Emergency Directives: (Fire, Natural Disaster, Threat on campus, etc.)

In accordance with Upper Iowa University's emergency management plan, any student that requires assistance in the event of an emergency (Fire, natural disaster, threat on campus) is responsible for notifying their instructor of the need for assistance. (Evacuation, and/or indoor safety protocols) This information will be held confidential and only needed in the unlikely event that there is an emergency.

Copyright Statement

In recognition of the Copyright Law of the United States (Title 17, United States Code), Upper Iowa University reminds both faculty members and learners that a willful infringement of the law may result in disciplinary action. The University library has available materials discussing the "fair use" concept, along with criteria and guidelines for reproduction and use of copyrighted materials.

This syllabus is subject to change.

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