

Math 112-004 (CRN 20958)
MWF 3:00-3:50
Bracken Library 105E
Spring 2026

Instructor: Dr. Dan Rutherford
Department of Mathematical Sciences
Ball State University
Office: RB 465B
Office Phone: (765) 285-3472
e-mail: rutherford@bsu.edu
Office Hours: MW 2:00-2:50 in RB 465, or by appointment

Text/Course Materials: Precalculus, 2nd Edition, by J. Miller & D. Gerken, published by McGraw Hill. We will be using the ALEKS online learning system as our course material, and it includes an electronic copy of the textbook. The purchase of a hard copy of the text is optional.

ALEKS is an adaptive, online learning system. The first day of class you will take the Initial Knowledge Check. You will be given a personalized learning plan based on your performance on that assessment. This learning plan gives you credit for what you already know and shows you what you are ready to learn. Throughout the semester you will work through ALEKS, mastering knowledge of the topics necessary for success in Trigonometry. ALEKS will periodically check your knowledge retention using Knowledge Checks.

Policies

Course Structure: Course meetings will include a mix of lecture presentations, guided problem solving, and individual student work time. We will have weekly modules containing various numbers of topics that will be your homework each week. Each module is due at 11:59pm on Sunday of that week. If you do not complete a topic or topics during a module, those topic(s) will be presented again in the review module for that unit.

Canvas: Canvas will be the means of communication and access to homework and course materials throughout the course. It is your responsibility to be aware of when items are due.

Attendance: Attendance is **required** and essential and will be a part of your grade. You are allowed 3 unexcused absences without penalty. Students should notify the instructor once they anticipate being absent for any reason (e.g., funeral) or as soon as possible after the absence begins (e.g., unexpected injury or illness). Documentation may be requested. More detail on BSU Attendance Policies can be found [here](#). Each unexcused absence after the third will result in a loss of 8 out of 50 attendance points. Attendance will be worth 5% of your grade.

Calculators: The only calculator allowed for use in the course is a **TI 30 XIIS**. All students are required to have this calculator. No graphing calculators of any kind will be allowed for use in the course.

Homework: Homework will consist of weekly modules completed online in ALEKS. The homework is worth 20% of the total grade. Assignment modules will be due at 11:59pm on Sunday of each week. You will have some class time to work on this material however you should expect to spend several hours each week working in ALEKS outside of class. The time necessary will vary weekly.

Quizzes: There will be a quiz at the end of each module in which we cover new material. The quizzes will be “take-home”. They will be distributed on Fridays and due the next Monday. You must be in class on Friday to receive the quiz and late quizzes will not be accepted. The lowest quiz score will be dropped at the end of the semester. Quizzes are worth 10% of the total grade.

Tests: There will be 3 unit exams each worth 15% of the total grade and a comprehensive final exam worth 20% of the total grade, in this course. The unit exams are scheduled for Jan. 30, Feb. 27, and Apr. 3.

The final exam is comprehensive (covers material from the entire semester) and is scheduled for Wednesday, April 29, 2:15-4:15 pm.

Grades:

Attendance		5%
Homework		20%
Quizzes	10 quizzes at 10 points each	10%
Test 1	Mods 1-4	15%
Test 2	Mods 5-8	15%
Test 3	Mods 9-12	15%
Final Exam	Comprehensive	<u>20%</u>
	(Wednesday, April 29, 2:15-4:15 pm)	
Total		100%

Letter Grade	Course Percentage
A	93-100
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79

Letter Grade	Course Percentage
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	0-59

Withdrawal: Course withdrawal is through 4 pm Thursday, March 19. During this time, students can elect to receive a W for the course by using Self Service Banner to withdraw.

Instructor permission is not required.

Learning Center:

The Learning Center offers free Tutoring and Academic Coaching for many courses at Ball State. Students can make appointments for online (Zoom) or in-person (NQ 350) appointments. To make an appointment, visit myballstate.bsu.edu and click on “Navigate” in the Academic Tools section, or just go directly to bsu.navigate.eab.com.

Testing accommodations for students with disabilities are available for students who have received the appropriate documentation from Disability Services. Tests may be administered in the Learning Center.

For more information about Learning Center programming, visit bsu.edu/learningcenter or call 765-285-1006.

University Statement: We are committed to ensuring that all members of the community are welcome, through valuing the various experiences and worldviews represented at Ball State and among those we serve. We promote a culture of respect and civil discourse.

Disability Statement: If you need course adaptations or accommodations because of a disability, please contact the instructor of record as soon as possible. Ball State's Disability Services Office coordinates services for students with disabilities; documentation of a disability needs to be on file in that office before any accommodations can be provided. Disability Services can be contacted at 765-285-5293 or dsd@bsu.edu.

Freedom of Expression Statement:

In this course, we are committed to fostering a learning environment that values intellectual diversity, encourages free expression, and promotes open inquiry. As members of the Ball State Community, we treat each person in the Ball State community with civility, courtesy, compassion, and dignity and respect and learn from differences in people, ideas, and opinions. Please review Ball State University's [Statement on Freedom of Expression](#), the resources on Ball State's [Freedom of Expression webpage](#), and [Ball State's Beneficence Pledge](#).

The link for Student Academic Ethics Policy and The Code of Student Rights and Responsibilities are:

Student Academic Ethics Policy:

<https://www.bsu.edu/about/administrativeoffices/studentrights/policiesandprocedures/studentcode/student-academic-ethics-policy>

Code of Student Rights and Responsibilities:

<https://www.bsu.edu/about/administrativeoffices/studentrights/policiesandprocedures/studentcode>

No Use of Generative AI Permitted

All work conducted and/or submitted in this course should reflect your own ideas and demonstrate your current knowledge, abilities, and skills. Therefore, generative AI should not be used to complete any portion of the assignment(s). Doing so constitutes a violation of Ball State University's [Student Academic Ethics Policy](#).

The following information is from the Department of Mathematical Sciences primary syllabus for Math 112:

Prerequisite: *Recommended Background:* Three years of college preparatory mathematics in high school or equivalent. Not open to students who have credit in MATH 161 or higher except for Math 181.

Catalog Description: Trigonometric functions, identities, and equations; graphs of the trigonometric and inverse trigonometric functions; solutions of right and general triangles; polar coordinates; and complex numbers. Core Transfer Library: Mathematics (IMA 1608)

Course Objective: The course content is designed to provide students with a solid trigonometric foundation necessary to succeed in calculus, physical sciences, musical, and engineering related sciences or disciplines.

Course Rationale: For students with little or no exposure to trigonometry or who assess their trigonometric skills are in need of review, this course provides the trigonometric foundation necessary for the completion of calculus courses MATH 161 and 165. The course also satisfies requirements of industrial technology and music related disciplines offered by the Colleges of Applied Sciences and Technology and Fine Arts (music synchronization and mixing).