This course supports the Precalculus performance assessment and objective exam. It covers 6 competencies.

Introduction

Precalculus covers the understanding and skills necessary to apply trigonometry, complex numbers, systems of equations and matrices, and sequence and series to model and solve real-life problems. Candidates should have successfully completed a course in College Algebra before engaging this course.

- **Competency 2008.1.1: Trigonometry of Angles**
  The graduate applies trigonometric ratios and triangle formulas to model and solve real-life problems.

- **Competency 2008.1.2: Trigonometry of Real Numbers**
  The graduate uses a unit circle to define trigonometric functions and applies these functions to model and solve real-life problems.

- **Competency 2008.1.3: Analytic Trigonometry**
  The graduate proves trigonometric identities and solves trigonometric equations.

- **Competency 2008.1.4: Complex Numbers**
  The graduate applies various representations of complex numbers to solve problems.

- **Competency 2008.1.5: Systems of Equations & Inequalities**
  The graduate uses systems of equations, systems of inequalities, and matrices to model and solve real-life problems.

- **Competency 2008.1.6: Sequences**
  The graduate explores arithmetic and geometric sequences and uses them to model and solve real-life problems.

Study Plan

Using the Interactive Textbook

The table below outlines the sections that you need to study for this course. For each section, read the section indicated in the Study Plan below and use the interactive links to supplement your learning. Then access the Homework problems for that section. If you’re stuck, use show me an example and then help me solve this. Then access the Quiz for that section. It is a short but timed experience: take it without notes or readings. When you’ve finished a quiz, you can either Review Results for that quiz or use the Study Plan to work on learning objectives that you’ve missed. You should consider yourself competent when you are regularly scoring above 70% on all quizzes.

Using other essential materials

The Study Plan below indicates some topics for which you need to use other materials. It is essential that you interact with those materials, even when the textbook supports that topic, because you need more knowledge and ability than the textbook alone can provide.

Seek help when you need it.

Work with your Course Instructor and call the Helpline.
## Pacing Guide and Study Plan

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<th>Topic</th>
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<th>Assessment Information and Other Essential Materials</th>
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<td>Self-evaluation</td>
<td>-</td>
<td>Take the Competence in Precalculus test. If you score above 70%, skip to Week 6 and fill in the gaps to prepare for the preassessment instead of going through the course linearly.</td>
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<td>5.1</td>
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<td>PERFORMANCE ASSESSMENT</td>
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<td>Complete and submit Task 1 in Taskstream.</td>
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<td></td>
<td>COMPETENCY:</td>
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<td>Solving Trigonometric Equations</td>
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<td>COMPETENCY:</td>
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<td>Take the Competence in Analytic Trig quiz. Use Review Results for that quiz. Use the Study Plan to focus on trouble spots.</td>
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<td>Analytic Trigonometry</td>
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### Law of Sines and Law of Cosines
7.1 & 7.2
- Textbook
- Homework
- Quiz
- Review Results

**COMPETENCY:** Trigonometry of Angles

If you haven't already done so, study this material, which is part of the first competency listed above.

Take the Competence in Trig of Angles quiz.

Use Review Results for that quiz.

Use the Study Plan to focus on trouble spots.

### Rectangular Form of Complex Numbers
1.4
- Textbook
- Homework
- Quiz
- Review Results

### Polar Form of Complex Numbers
7.3 & 7.5
- Textbook
- Homework
- Quiz
- Review Results

**COMPETENCY:** Complex Numbers

Take the Competence in Complex Numbers quiz.

Use Review Results for that quiz.

Use the Study Plan to focus on trouble spots.

### Systems of Equations and Systems of Inequalities
8.1, 8.2, 8.4, & 8.5
- Textbook
- Homework
- Quiz
- Review Results

### Matrices
9.1 & 9.2
- Textbook
- Homework
- Quiz
- Review Results

**COMPETENCY:** Systems of Equations & Inequalities

Take the Competence in Systems of Equations & Inequalities quiz.

Use Review Results for that quiz.

Use the Study Plan to focus on trouble spots.

### Arithmetic Sequences
11.1 & 11.2
- Textbook
- Homework
- Quiz
- Review Results

### Geometric Sequences
11.3
- Textbook
- Homework
- Quiz
- Review Results

**COMPETENCY:**

Take the Competence in Sequences quiz.

Use Review Results for that quiz.

Use the Study Plan to focus on trouble spots.
Sequences

Use Review Results for that quiz. Use the Study Plan to focus on trouble spots.

Prepare for Preassessment

Take the Competence in Precalculus test. Use Review Results for that test. Use the Study Plan to focus on trouble spots.

Preassessment

Take the Preassessment. See the Assessment tab for more information. Review the scoring report, which will show topics on which you need more practice. Review the sections of the Study Plan associated with those topics.

Objective Exam

Take the objective assessment. See the Assessment tab for more information. If you do not pass, meet with a Course Instructor. Review the scoring report, which will show topics on which you need more practice. Review the sections of the Study Plan associated with those topics.

Give Course Feedback

WGU values your input! If you have comments, concerns, or suggestions for the improvement of this course, please submit your feedback.

Support

Course Support

Access the WGU Library 24 hours a day, 7 days a week:

WGU Library

Visit the Student Success Center to access a variety of topics that will help you succeed at WGU:

Student Success Center

Contact the Center for Writing Excellence (CWE) for help with any part of the writing or revision process:

CWE
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Western Governors University recognizes and fulfills its obligations under the Americans with Disabilities Act of 1990 (ADA), the Rehabilitation Act of 1973 and similar state laws. Western Governors University is committed to provide reasonable accommodation(s) to qualified disabled learners in University programs and activities as is required by applicable law(s). The Office of Student Accessibility Services serves as the principal point of contact for students seeking accommodations and can be contacted at ADASupport@wgu.edu. Further information on WGU's ADA policy and process can be viewed in the student handbook at the following link:

- Policies and Procedures for Students with Disabilities