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🚶 "Please remember me and my family in your prayers." 🌸

📖 Bachelor of Science in Computer Science

🎓 University of the People

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Here you will find the syllabi and primary textbooks for all UoPeople courses. The Disclaimer for Use of the Repository can be found [here](#).

General Studies

MATH 1201 College Algebra

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MATH 1201: College Algebra

Syllabus

Prerequisites: None.

Course Description: This course provides a solid grounding in algebra, trigonometry, and analytic geometry in preparation for further mathematical studies. The course includes an extensive study of linear, quadratic, and rational functions. It also contains an introduction to exponential and logarithmic functions and circles. Finally, the topic of systems of linear equations is covered.

Required Textbook and Materials: UoPeople courses use open educational resources (OER) and other materials specifically donated to the University with free permissions for educational use. Therefore, students are not required to purchase any textbooks or sign up for any websites that have a cost associated with them. The main required textbooks for this course are listed below and can be readily accessed using the provided links. There may be additional required/recommended readings, supplemental materials, or other resources and websites necessary for lessons; these will be provided for you in the course's General Information and Forums area, and throughout the term via the weekly course Unit areas and the Learning Guides.

- Abramson, J. (2023). *Algebra and trigonometry* (2nd ed.). OpenStax. https://openstax.org/details/books/algebra-and-trigonometry-2e licensed under CC 4.0

Software Requirements/Installation:

In this course, you will use online graphing calculator, GeoGebra: https://www.geogebra.org/calculator

Note that the information on how to use the online calculator has been included in Learning Guide Unit 1, under the heading 'Using Geogebra'.

Learning Objectives and Outcomes:

By the end of this course students will be able to:

1. Summarize the basic concepts of algebra and trigonometry using various resources (textbooks, graphs and scientific calculators)
2. Solve algebraic and trigonometric problems.
3. Interpret the algebraic and trigonometric concepts using graphs.
4. Apply the algebraic and trigonometric concepts to the mathematical models .

Course Schedule and Topics: This course will cover the following topics in eight learning sessions, with one Unit per week. The Final Exam will take place during Week/Unit 9 (UoPeople time).

Week 1: Unit 1 - Functions - I

Week 2: Unit 2 - Functions - II

Week 3: Unit 3 - Polynomials - I (Linear and Quadratic Functions)

Week 4: Unit 4 - Polynomials - II (Polynomials of Higher Order and Rational Functions)

Week 5: Unit 5 - Exponential and Logarithmic Functions

Week 6: Unit 6 - Trigonometry - I (Foundations of Trigonometry)

Week 7: Unit 7 - Trigonometry - II (Additional Trigonometric Concepts)

Week 8: Unit 8 - Systems of Equations

Week 9: Unit 9 -Course Review and Final Exam

Learning Guide: The following is an outline of how this course will be conducted, with suggested best practices for students**.**

Unit 1: Functions - I

- Read the Learning Guide and Reading Assignments
- Read 'Using GeoGebra' in the Learning Guide Unit 1
- Participate in the Discussion Assignment (post, comment, and rate in the Discussion Forum)
- Complete an entry in the Math Assignment
- Take the Self-Quiz

Unit 2: Functions - II

- Read the Learning Guide and Reading Assignments
- Complete an entry in the Math Assignment
- Take and submit the Self-Quiz

Unit 3: Polynomials - I (Linear and Quadratic Functions)

- Read through the Learning Guide and the Reading Assignment
- Complete an entry in the Math Assignment
- Take and submit the Self-Quiz
- Take and submit the Graded Quiz

Unit 4: Polynomials - II (Polynomials of Higher Order and Rational Functions)

- Read through the Learning Guide and the Reading Assignment
- Complete an entry in the Math Assignment
- Take and submit the Self-Quiz

Unit 5: Exponential and Logarithmic Functions

- Read through the Learning Guide and the Reading Assignment
- Complete the Discussion Assignment by posting in the Discussion Forum
- Respond to two of your fellow classmates' posts in the Discussion Forum
- Complete an entry in the Math Assignment
- Take and submit the Self-Quiz

Unit 6: Trigonometry - I (Foundations of Trigonometry)

- Read the Learning Guide and Reading Assignments
- Complete an entry in the Math Assignment
- Take and submit the Self-Quiz
- Take and submit the Graded Quiz

Unit 7: Trigonometry - II (Additional Trigonometric Concepts)

- Read through the Learning Guide and the Reading Assignment.
- Complete an entry in the Math Assignment.
- Take and submit the Self-Quiz.

Unit 8: Systems of Equations

- Read through the Learning Guide and the Reading Assignment.
- Complete the Discussion Forum Assignment by posting in the Discussion Forum.
- Respond to two of your fellow classmates' posts in the Discussion Forum.
- Complete an entry in the Math Assignment.
- Take and submit the Self-Quiz.
- Take the Review Quiz.
- Read the Unit 9 Learning Guide carefully for instructions on the Final Exam.

Unit 9: Course Review and Final Exam

- Read the Learning Guide and take the Review Quiz, if you haven't already done so
- Prepare for, take, and submit the Final Exam
- The Final Exam will take place during the Thursday and Sunday of Week/Unit 9 (UoPeople time); exact dates, times, and other details will be provided accordingly by your instructor

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Course Requirements:

Discussion Assignments & Response Posts/Ratings

Some units in this course require that you complete a Discussion Assignment. You are required to develop and post a substantive response to the Discussion Assignment in the Discussion Forum. A substantive response is one that fully answers the question that has been posted by the instructor. In addition, you must extend the discussion by responding to at least two (2) of your peers' postings in the Discussion Forum. All your discussion posts will be assessed by your instructor. Instructions for proper posting and rating (out of a 10-point scale) are provided in the Discussion Forum for each week. Review the rubrics before you start working on the discussion forums. Discussion Forums are only active for each current and relevant learning week, so it is not possible to contribute to the forum once the learning week has come to an end.

Math Assignment

Math Assignment is graded by your instructor. The grading rubric is listed under the assignment instructions. The grading rubric is a document that outlines the criteria that your instructor will use to grade your work.

Class Introductions

This section is your opportunity to introduce yourself to your classmates and create a vibrant learning community. By sharing your background, interests, and goals, you can create meaningful connections and discover commonalities with your peers.

Quizzes

This course will contain three types of quizzes – the Self-Quiz, the Graded Quiz, and the Review Quiz. These quizzes may contain multiple choice, true/false, or short answer questions. The results of the Self-Quiz will not count towards your final grade. However, it is highly recommended that you complete the Self-Quiz to ensure that you have adequately understood the course materials. Along with the Reading Assignments, the results of the Self-Quiz should be used as part of an iterative learning process, to thoroughly cover and test your understanding of course material. You should use the results of your Self-Quiz as a guide to go back and review relevant sections of the Reading Assignments. Likewise, the Review Quiz will not count towards your final grade, but should also be used to assist you in a comprehensive review and full understanding of all course material, in preparation for your Final Exam. Lastly, the results of the Graded Quiz will count towards your final grade.

Final Exam

The Final Exam will take place during the Thursday and Sunday of Week/Unit 9, following the completion of eight units of work. The format of the Final Exam is similar to that of the quizzes and may contain a combination of different question types. You will have one attempt to take the exam, and it will be graded electronically. Specific instructions on how to prepare for and take the Final Exam will be provided during Week 8 (located inside the Unit 9 Learning Guide). Final Exams must be taken without the use of course learning materials (both those inside and outside the course). If particular materials are allowed for use during the exam, these will be noted in the exam's instructions.

The Final Exam for this course must be done under the supervision of a proctor. Since you already secured your proctor before registering for this course, this is a reminder that you should coordinate with him/her before you take the exam. As a reminder, students are required to successfully complete proctored exams spaced throughout their program of study at UoPeople, in order to verify the student's identity in confirming a degree and diploma upon graduation.

Students are allowed to use a pen and blank paper for doing calculations. Students can use a basic or scientific calculator for the final exam. Calculators on the cell phone, iPad, or similar devices are not allowed.

Course Forum

The Course Forum is the place to raise issues and questions relating to the course. It is regularly monitored by the instructors and is a good place to meet fellow students taking the same course. While it is not required to participate in the Course Forum, it is highly recommended.

Course Policies:

Grading Components and Weights

Each graded component of the course will contribute some percentage to the final grading scale, as indicated here:

Grade Components

Course Requirements	Number of Items	Percentage
Discussion Forum	3	20%
Math Assignment	8	55%
Graded Quizzes	2	10%
Final Exam	1	15%
Total		**100%**

Grading Scale
This course will follow the standard 100-point grading scale defined by the University of the People, as indicated here:

Letter Grade	Grade Scale	Grade Points
A+	98-100	4.00
A	93-97	4.00
A-	90-92	3.67
B+	88-89	3.33
B	83-87	3.00
B-	80-82	2.67

C+	78-79	2.33
C	73-77	2.00
C-	70-72	1.67
D+	68-69	1.33
D	63-67	1.00
D-	60-62	0.67
F	Under 60	0.00

Grade Appeal

If you believe that the final grade you received for a course is erroneous, unjust, or unfair, please contact your course instructor. This must be done within seven days of the posted final grade. For more information on this topic, please review the Grade Appeal Procedure in the University Catalog.

Participation

Non-participation is characterized by a lack of any assignment submissions, inadequate contributions to the Discussion Forums. Also, please note the following important points about course participation:

- Assignments must be submitted on or before the specified deadline. A course timeline is provided in the course schedule, and the instructor will specify deadlines for each assignment.
- Occasionally there may be a legitimate reason for submitting an assignment late. Most of the time, late assignments will not be accepted and there will be no make-up assignments.
- All students are obligated to inform their instructor in advance of any known absences which may result in their non-participation.

Academic Honesty and Integrity

If and when you submit any work that requires research and writing, it is essential to cite and reference all source material. Failure to properly acknowledge your sources is known as "plagiarism" – which is effectively passing off an individual's words or ideas as your own. University of the People adheres to a strict policy of academic honesty and integrity. Failure to comply with these guidelines may result in sanctions by the University, including dismissal from the University or course failure. For more information on this topic, please review the Academic Integrity Policy in the University Catalog.
Any materials cited in this course should be referenced using the style guidelines established by the American Psychological Association (APA). The APA format is widely used in colleges and universities across the world and is one of several styles and citation formats required for publication in professional and academic journals. Refer to the UoPeople APA Tutorials in the LRC for help with APA citations. For help with using library, kindly refer to UoPeople Library.

Code of Conduct

University of the People expects that students conduct themselves in a respectful, collaborative, and honest manner at all times. Harassment, threatening behavior, or deliberate embarrassment of others will not be permitted.
Any conduct that interferes with the quality of the educational experience is not allowed and may result in disciplinary action, such as course failure, probation, suspension, or dismissal. For more information on this topic, please review the Code of Conduct Policy in the University Catalog.