

 MAT 121 Pre Calculus Mrs. Elizabeth Smith

 (770) 720- 9103 EAS1@reinhardt.edu Office: Tarpley 308

**Web resources**: https://eagleweb.reinhardt.edu/ics/Campus\_Life/Campus\_Groups/Math

**Learning Management System and Textbook:** PRECALCULUS, 2/E, by Sisson, Hawkes Learning Systems (HLS), ISBN-10#1-938891-33-3. Any version of the book (e-copy, loose leaves, etc.) is acceptable: an individual license (and access code) for the software is mandatory. You can buy a used book but do not buy a used access code – it will not transfer. If you were in Math 100 or Math 102 College Algebra using Hawkes then you DO NOT have to buy again. You will only need to ENROLL in the new section for my class.

The homework will be completed using a software by Hawkes Learning Systems (HLS). You can use the completely online version at http://learn.hawkeslearning.com/ or you can download the software at http://www.hawkeslearning.com/Support/downloads.htm, product “Precalculus.” The registration procedure is explained at http://www.hawkeslearning.com/Students.htm and in some handouts on our EagleWeb page.

Course ID: ReinhardtPRC,

Bring your laptop to class and I can help you set up if need be. You must have a debit/credit card to buy software online. It is also available in the RU bookstore.

**Technology:** Graphing calculators and software are required: I will use a TI 84, Wolfram Alpha (free) and GeoGebra(free). A TI-83 or above will be the most useful. If you have a different type of graphing calculator tool (like Wabbit app on a smartphone) then you may use that. If you have never used a graphing calculator then get a Texas Instruments 84 because I will use it for class explanations and demonstrations since that is the kind most students use. You can not use online calculators for tests so you must have access to a TI 83 or above. No sharing of calculators during tests is permitted.

# Catalog Description: This course is primarily for students who plan to major in mathematics, engineering, science, or any science-related area; it is designed as preparation for the study of calculus. Topics include polynomial and rational functions, exponential and logarithmic functions, circular and trigonometric functions, the trigonometry of right and oblique triangles, applications of trigonometry, trigonometric identities and complex numbers. *Prerequisite: College placement or a grade of C or better in MAT 102.*

**Objectives** As a result of taking this course the student should

1. Be able to graph polynomial and rational functions
2. Be able to find rational roots of polynomial equations
3. Be able to define and use trigonometric functions
4. Be adept at using trigonometric identities
5. Be able to solve right and oblique triangles
6. Be able to solve simple problems with vectors
7. Be able to perform arithmetic operations with complex numbers
8. Be familiar with the basic conic sections
9. Demonstrate integrative, critical and inquiry-based learning using evidence, logic, reasoning, and calculation.
10. Demonstrate knowledge of various research methodologies, information, technological, and scientific literacy.

 **MATHEMATICS PROGRAM OBJECTIVES:** The Mathematics Program at Reinhardt University offers courses geared to
**MPO1** Analyze and solve problems by using reasoning, logic and evidence, and by bringing knowledge from a wide range of mathematical areas.

**MPO2** Use effective written and oral expression of mathematical concepts in the creation of a mathematical argument by recognizing a wide range of mathematical terms and vocabulary.

**MPO3**​Apply axiomatic systems.

**MPO4**​Apply mathematical research methodologies by using libraries, informational technologies, computer programming and numerical methods in order to create solutions to problems.

**MPO5** Apply ethical, legal, and policy issues to Information Technology

**MPO6** Create IT solutions to solve organizational problems.

 **MATHEMATICS PROGRAM STUDENT LEARNING OUTCOMES:**Taking this course, students will be able to

**SLO1** Solve a word problem by applying the appropriate mathematical setup, obtaining the mathematical solution, and interpreting this solution in the context.

**SLO2** Solve a theoretical problem by identifying the appropriate mathematical context, interpreting the question and the nature of the solution, and checking that the solution is correct.

**SLO3** Complete a proof or produce a mathematical object that satisfies specific properties.

**SLO4** Solve a problem by consulting various resources, applying appropriate technological tools, and using adequate approximations.

**SLO5** Analyze how information technology affects ethical and legal issues.

**SLO6** Synthesize appropriate solutions to organizations' problems.

**ALIGNMENT TO REINHARDT UNIVERSITY SLO’s:**

|  |  |  |
| --- | --- | --- |
| **Math PO** | **Math SLO** | **RU SLO** |
| 1 | 1 | 1, 2, 4 |
| 2 | 2 | 1-4 |
| 3 | 3 | 1-4 |
| 4 | 4 | 1-4 |
| 5 | 5 | 1-4, 7 |
| 6 | 6 | 1-4 |

**Grading Scale**

A 90 - 100

B 80 - 89

C 70 - 79

D 60 - 69

F Below 60

**Grade Determination**

3 Tests. 75% generally given in September, October and November

Homework 25%

The final will be comprehensive. If you are satisfied with your grade after the third test, you may exempt the final. If you take the final, it will replace your lowest test grade, if it is higher than that grade.

***No makeup tests will be given. If you have to miss a test due to other Reinhardt obligations (music, sports etc) then see me BEFORE the test to work out another class time to take your test. IF you do miss a test it will count as your dropped grade and you MUST take the final exam.***

The roll will be taken each day. After three absences, 1 point will be deducted from the final grade for each additional absence. 2 tardies count as an absence.

**Class Policy**

Students will be expected to pay attention and participate in class. If you have any questions, please ask me at anytime. **All cell phones must be turned off during tests.** You are encouraged to work together on homework or ask for outside help. Cheating on a test will result in an automatic F in the course. **NO sharing of calculators is allowed on test days. No online devices may be used on tests.**

**Academic Integrity**

All instances of cheating will result in a zero for the assignment and a report to the Dean of Academic Affairs. All students are expected to adhere to the highest standards of academic integrity, and to abide by the Reinhardt Honor Code. Also, all students are expected to be familiar with the Reinhardt policy on academic dishonesty stated in the University Catalog and in the Student Handbook. Plagiarism (using the ideas and phrases of others without crediting them, therefore claiming those ideas and phrases as your own) will not be tolerated in this course or on this campus. To avoid such academic dishonesty, you must use a citation (footnote or in text) for all ideas drawn from your reading and research, including research in encyclopedias and online, even when you have restated those ideas in your own words.

**For Free Tutoring and Help with Homework:**

The Center for Student Success located on bottom floor of Lawson, room 035, is a free tutoring service available to all students. For appointments--go to Reinhardt webpage; click on Academics. When the next page appears, click Center for Student Success. On that screen, click Student Appointment Form. Fill out required fields and then submit. If you would prefer to call, the number is 770-720-9232.

“The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a documented disability requiring an accommodation, please contact the Academic Support Office (ASO).

Reinhardt University is committed to providing reasonable accommodations for all persons with disabilities. Therefore, if you are seeking classroom accommodations under the Americans with Disabilities Act, you are required to register with the Academic Support Office (ASO). ASO is located in the basement of Lawson Building. Phone is 7707205567. To receive academic accommodations for this class, please obtain the proper ASO letters/forms.”