Math 2412 Precalculus
Spring 2022 Syllabus

Disclaimer

This syllabus is current and accurate as of its posting date, but will not be updated. For the most complete and up-to-date course information, contact the instructor[i].

Instructor Information

Dr. David A. Huckaby
Office: MCS 219D
Phone: 325-486-5434
Email: david.huckaby@angelo.edu

Tests

We will have three tests and a cumulative final examination. All exams will be proctored. The exact dates and coverage of these tests will be announced via email and posted on Blackboard; however, as a planning guide, you may expect to take the first test the fifth week of the semester, the second test the tenth week of the semester, and the third test the fourteenth week of the semester. The final exam will be held as specified in the course schedule.

There are no make-up exams. To compensate for unavoidable circumstances, however, if it helps you, I will replace your lowest exam score with your final exam score.

Daily Work

Daily work will consist primarily of traditional homework problems completed on a computer-based system. Late work is not accepted. To compensate for unavoidable circumstances, however, I will drop your lowest six homework scores.

Calculations

Your score on homework will count 10%, each test 20%, and the final exam 30% (50% if it replaces your lowest test grade). Then 90 and above is an A, 80-89 is a B, 70-79 is a C, 60-69 is a

D, and less than 60 is an F. I reserve the right, however, to adjust grades upwards from these percentages.

Student Learning Outcomes

1. Students will read, interpret, and use the vocabulary, symbolism, and basic definitions used in precalculus pertaining to the real numbers; exponents and radicals; polynomials, factoring, and rational expressions; equations and inequalities; functions; polynomial and rational functions; inverse functions; exponential and logarithmic functions; graphs and their transformations; six trigonometric functions; types of angle measure and notation; parts of triangles and circles; parabolas, ellipses, and hyperbolas; asymptotes; and vectors.
2. Students will identify and apply the laws and formulas that result directly from the definitions; for example, rules of exponents, exponential and logarithmic properties, the quadratic formula, slope and formulas for the equations of lines, the fundamental trigonometric identities, properties of angles and triangles, characteristics of the trigonometric functions and inverse trigonometric functions, formulas of the conic sections, translation of axes, and formulas relating polar and rectangular coordinates.
3. Students will utilize the facts, formulas, and the techniques learned in this course to simplify algebraic expressions; graph functions; solve equations; prove trigonometric identities; solve trigonometric equations; solve various types of triangle problems; and recognize and graph trigonometric and inverse trigonometric functions, conic sections, algebraic curves, polar equations, and parametric equations.
4. Students will acquire a level of proficiency in the fundamental concepts and applications in precalculus necessary for success in calculus.

Subject Matter

We will be studying the basics of descriptive statistics, probability, and inferential statistics.

The subject matter schedule listed below is tentative, and subject to change and adaptation. For current, updated information about course topics, [contact the instructor](#)[ii].

Following are the tentative topics for each numbered course day:

1. Introduction
2. Exponents and Radicals
3. Algebraic Expressions
4. Rational Expressions
5. Equations
6. Inequalities
7. The Coordinate Plane
8. Graphs of Equations
9. Lines

10. Functions
11. Graphs of Functions
12. Combining Functions
13. Inverse Functions
14. Quadratic Functions
15. Exam
16. Polynomial Functions
17. Rational Functions
18. Exponential Functions
19. The Natural Exponential Function
20. Logarithmic Functions
21. Properties of Logarithms
22. Exponential and Logarithmic Equations
23. Angles
24. Right Triangle Trigonometry
25. Unit Circle Trigonometry
26. Graphs of Trigonometric Functions part 1
27. Graphs of Trigonometric Functions part 2
28. Inverse Trigonometric Functions
29. Trigonometric Equations
30. Sum and Difference Formulas
31. Exam
32. Double-angle and Half-angle Formulas
33. Law of Sines
34. Law of Cosines
35. Polar Coordinates
36. Polar Equations and Graphs
37. Vectors
38. The Dot Product
39. The Parabola
40. The Ellipse
41. Exam
42. The Hyperbola
43. Plane Curves and Parametric Equations

Required Texts or Readings
None.

Office Hours

Monday: 8:15-12:00, 1:00-2:30
Tuesday: 9:00-11:00
Wednesday: 8:15-10:00
Thursday: 9:00-10:00
Friday: (by appointment)

ASU Statements

Student Disability Services

ASU is committed to the principle that no qualified individual with a disability shall, on the basis of disability, be excluded from participation in or be denied the benefits of the services, programs or activities of the university, or be subjected to discrimination by the university, as provided by the Americans with Disabilities Act of 1990 (ADA), the Americans with Disabilities Act Amendments of 2008 (ADAAA), and subsequent legislation.

The Office of Student Affairs is the designated campus department charged with the responsibility of reviewing and authorizing requests for reasonable accommodations based on a disability, and it is the student's responsibility to initiate such a request by contacting:

Dallas Swafford
Director of Student Disability Services
Office of Student Affairs
325-942-2047
dallas.swafford@angelo.edu

Title IX at Angelo State University
The University prohibits discrimination based on sex, which includes pregnancy, sexual orientation, gender identity, and other types of Sexual Misconduct. Sexual Misconduct is a broad term encompassing all forms of gender-based harassment or discrimination including: sexual assault, sex-based discrimination, sexual exploitation, sexual harassment, public indecency, interpersonal violence (domestic violence and/or dating violence), and stalking. As a faculty member, I am a Responsible Employee meaning that I am obligated by law and ASU policy to report any allegations I am notified of to the Office of Title IX Compliance.

Students are encouraged to report any incidents of sexual misconduct directly to ASU's Office of Title IX Compliance and the Director of Title IX Compliance/Title IX Coordinator at:

Michelle Boone, J.D.

Director of Title IX Compliance/Title IX Coordinator
Mayer Administration Building, Room 210
325-942-2022
michelle.boone@angelo.edu

You may also file a report online 24/7 at [Title IX Incident Form](#)[iii]

If you are wishing to speak to someone about an incident in confidence you may contact the *University Health Clinic and Counseling Center at 325-942-2173* or the *ASU Crisis Helpline at 325-486-6345*.

For more information about Title IX in general you may visit the [ASU Title IX website](#)[iv].

Student Absence for Observance of Religious Holy Days

A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. ([Observance of Religious Holy Day](#)[v])

Incomplete Grade Policy

It is policy that incomplete grades be reserved for student illness or personal misfortune. Please contact faculty if you have serious illness or a personal misfortune that would keep you from completing course work. Documentation may be required. See ASU Operating Policy 10.11 [Grading Procedures](#)[vi] for more information.

Student Conduct Policies

Academic Integrity

Students are expected to maintain complete honesty and integrity in all work. Any student found guilty of any form of dishonesty in academic work is subject of disciplinary action and possible expulsion from ASU.

The College of Science and Engineering adheres to the Statement of [Academic Integrity](#)[vii].

Plagiarism

Plagiarism is a serious topic covered in ASU's [Academic Integrity Policy](#)[viii] in the Student Handbook. Plagiarism is the action or practice of taking someone else's work, idea, etc., and passing it off as one's own. Plagiarism is literary theft.

In your discussions and/or your papers, it is unacceptable to copy word-for-word without quotation marks and the source of the quotation. It is expected that you will summarize or paraphrase ideas giving appropriate credit to the source both in the body of your paper and the reference list.

Papers are subject to be evaluated for originality via Turnitin. Resources to help you understand this policy better are available at the [ASU Writing Center](#)[ix].

Copyright Policy

Students officially enrolled in this course should make only one printed copy of the given articles and/or chapters. You are expressly prohibited from distributing or reproducing any portion of course readings in printed or electronic form without written permission from the copyright holders or publishers.

General Policies Related to this Course

All students are required to follow the policies and procedures presented in these documents:

- [Angelo State University Student Handbook](#)[x]
- [Angelo State University Catalog](#)[xi]

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[i] mailto:david.huckaby@angelo.edu

[ii] mailto:david.huckaby@angelo.edu

[iii] http://www.angelo.edu/incident-form

[iv] https://www.angelo.edu/current-students/title-ix/

[v] https://angelo.policystat.com/policy/10659368/latest/

[vi] https://angelo.policystat.com/policy/10659448/latest/

[vii] https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=97

[viii] https://www.angelo.edu/live/files/27603-student-handbook-2020-21#page=97

[ix] https://www.angelo.edu/current-students/writing-center/academic_honesty.php

[x] https://www.angelo.edu/current-students/student-handbook/

[xi] https://www.angelo.edu/academics/catalog/