Pre-Calculus
Math 1240, Section 501
T,Th 4:30-5:45
VAAS-125

Instructor: Greg Barnett

Office	Office Hours: T, Th
LRC 107	12:00-1:00 online
(505) 925-8620	1:00-3:00 in the LRC
gregbarnett@unm.edu	or by appointment

1 Overview

Welcome to Math 1240. Here is the UNM course description.

> In-depth study of polynomial, rational, exponential and logarithmic functions and their graphs. Includes the fundamental theorem of algebra, systems of equations, conic sections, parametric equations and applications in geometry. Exploration of the graphing calculator. May be taken concurrently with 1230. (I)

> Meets New Mexico Lower-Division General Education Common Core Curriculum Area II: Mathematics.

> Prerequisite: 1220 or ACT Math =>25 or SAT Math Section =>590 or ACCUPLACER Next-Generation Advanced Algebra and Functions =249-283.

Note: This syllabus is subject to change, if needed.

2 Student Learning Outcomes (SLOs)

1. Functions

    (a) Reinforce recognizing a function from its graph and from its algebraic expression.

    (b) Reinforce identification of a one-to-one function graphically and from its algebraic expression.

    (c) Reinforce identification of inverse functions graphically and algebraically.

    (d) Reinforce combining functions arithmetically and compositionally.

    (e) Be able to calculate the average rate of change of a function and depict it graphically.

    (f) Be able to find a limiting value of a function and be able to identify and use the notation that describes this.

2. Graphing

    (a) Reinforce using key characteristics of functions to graph them.

    (b) Be able to graph conic sections from their key characteristics such as foci, eccentricity and asymptotes.

    (c) Be able to identify all functions mentioned from their graphs, describing their key aspects.

3. Solving

    (a) Exponential/Logarithmic equations using the rules of exponents and logarithms.

    (b) Systems of linear equations by elimination.

    (c) Non-linear systems algebraically and graphically.

4. Applications

    (a) Modeling with functions with an emphasis on exponential and logarithmic functions, growth and decay.

5. Sequences and Series

    (a) Understand the concept and notation of a sequence.

    (b) Understand the concept and notation of a series.

    (c) Be able to find limits of basic sequences

    (d) Be able to find sums of basic series.

3 Required Text

The required text (or eText) for this course is:

- Precalculus: Mathematics for Calculus, 7th Edition, by Stewart, Redlin, and Watson

- WebAssign access is *not* required for the course, but is useful for accessing supplemental textbook resources and the eText. Class Key: unm 3340 3078

4 Attendance Policy

Attendance in the course is required. If a student misses two classes in the first two weeks of the semester, three consecutive class periods or five total, I reserve the right (but not the obligation) to drop the student from the class. If you stop attending class for any reason, it is your responsibility to make sure you drop the class, or risk getting a failing grade.

5 Course Structure

The course content includes the following.

- Homework (300 points)

    - 13 Written Homework Assignments (30 points each)

- The three lowest homework scores are dropped

- Midterm Exam (100 points)

    - The midterm exam will be given on **Thursday, March 12**.

- Final Exam (150 points)

    - The comprehensive final exam will be given on **Tuesday, May 12, from 4:00 to 6:00**.

- Total (550 points)

6 Grading Policy

Your grades will be calculated as follows.

Point Total	Grade
[539,550]	A+
[506, 539)	A
[495,506)	A-
[484,495)	B+
[451,484)	B
[440,451)	B-
[429,440)	C+
[385,429)	C
[374,385)	D+
[341,374)	D
[330,341)	D-
[0,330)	F

7 Make-up Policy

Late homework assignments will not be accepted, unless there is a valid reason. Exams may be made up in the event of emergency or extenuating circumstance only.

8 Academic Integrity

We will follow university policy on academic integrity.

Having academic integrity is paramount to your success in any class. Plagiarism or cheating is not tolerated. Any instance of this will result in a grade of zero for that assignment. Here is the link to the UNM Academic Dishonesty Policy: https://policy.unm.edu/regents-policies/section-4/4-8.html. The policy states:

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or who otherwise fails to meet the expected standards. Any student judged to have engaged in

academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course.

"Academic dishonesty" includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

9   Students with Disabilities

If you have a documented disability, please provide me with a copy of your letter from Equal Access Services as soon as possible to ensure that accommodations are provided in a timely manner.

10   EQUAL OPPORTUNITY AND NON-DISCRIMINATION:

In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see page 15 of this link). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: https://policy.unm.edu/university-policies/2000/2740.html.