MATH 1050

College Algebra

Instructor

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Office | Office Hours L14 Monday 1:40-2:15, Tuesday 12:15-2:55, Wednesday-Friday 2:15-3:15

Course

UVU CRN #14310, 4 credit hours (must take full year course for credit)

## Description

***This is a Concurrent Enrollment Course, offering both high school credit through TimpView High School and college credit through Utah Valley University. Credit from this course is transferable to all colleges and universities. Contact the receiving institution for how the credits will be applied.***

Includes inequalities, functions and their graphs, polynomial and rational functions, exponential and logarithmic functions, systems of linear and nonlinear equations and inequalities, matrices and determinants, arithmetic and geometric sequences, and the Binomial Theorem.

**Learning Objectives and Outcomes**

• Perform basic algebraic and arithmetic operations using their knowledge of mathematical facts, rules, and properties;

• Recognize and use their knowledge of a wide variety of mathematical definitions, terms, symbols, expressions, statements, formulas, procedures, and methods taught or used in the course; and

• Solve problems by selecting the most appropriate mathematical formula, procedure, or methods from among several formulas, procedures, or methods known by the student.

Course Outcomes: Upon successful completion of this course a student is able to:

1. Use algebraic methods to solve a variety of problems involving exponential, logarithmic, polynomial, and rational functions, systems of equations and inequalities, sequences notation.
2. Solve equations by correctly completing several logical steps before arriving at a final answer, and when possible, check solutions.
3. Graph linear, power, root, reciprocal, absolute value, polynomial, rational, exponential, logarithmic functions and conic sections along with basic transformations.
4. Analyze real world problems such as population growth, half-life, compound interest, and optimization. Select appropriate mathematical models to aid in finding solutions.
5. Demonstrate understanding by interpreting mathematical vocabulary and symbols representing mathematical information.
6. Use algebraic manipulations to rewrite equations and expressions, including rewriting in standard form, factoring, and completing the square. Use matrix methods such as Gaussian elimination, inverse matrices, and determinants to solve systems of linear equations.

**Essential Learning Outcome:**  This course is part of UVU’s general education program and is intended to address the Essential Learning Outcome: Intellectual and Practical Skills foundation.

**Prerequisites**

To be eligible for this class, a student must have completed Secondary Math I, II, and III with a 3.0 GPA AND received one of the following:

i) a recent (received in the past 2 years) grade of C or better in UVU MAT 1010 or MAT 1000;

ii) a recent (received in the past 2 years) ACT math score of at least 23; or

iii) a satisfactory recent (received in the past 1 year) Mathematics Placement score;

Any student enrolled in this class who does not meet this requirement may be administratively withdrawn from this class at any time.

**Course Procedures and Commentary**

Homework problems will be assigned daily. The HW assignments for the entire course are provided on a separate handout. ***Mastering the HW problems is the key to success in this class.***

Most of the learning that takes place during this course will occur outside of class. This will typically be done by studying lecture notes, studying the textbook, and working through homework problems. An average student should plan to spend approximately 8 to 12 hours per week outside of class doing homework in order to master the material.

**Text | Instructional Material**

*College Algebra,* Stewart/Redlin/Watson 7th Edition. [Minimum sections to cover: 2.1-2.4, 2.6-2.8, 3.1-3.6, 4.1-4.6, 5.1-5.5 and Linear Programing, 6.1-6.4, 8.1-8.3, & 8.6.]

**Assessment**

**Exams**

There will be 4 unit exams worth 100 points each and a comprehensive final exam worth 200 points. All exams will be closed book, closed notes, and taken in class under reasonable time constraints. Exam problems are similar to problems from the homework or problems discussed in class.

No early exams are given under any circumstances. An exam can be taken only once; an exam cannot be taken more than once to improve a low score. Late exams are not allowed unless the student provides a written and verifiable document that justifies the student’s absence on exam day. **If you have a legitimate reason (medical, death in the family, extracurricular activity etc.) for missing a test, arrangements can be made to take the test on Monday or Thursday after school within one week. These special conditions are rare and require that you contact Mrs. Taylor prior to the scheduled test.**

**Final Exam**

The final exam is a comprehensive exam worth 20-30% of the student’s final course grade. The final exam for this course will be January 26th or 29th (depending on 5th or 6th period).Failure to take the final exam will result in a grade of UW or E (based on last date of attendance) for the course regardless of other grades. It is University policy that no one will be permitted to take a final exam early.

**Calculators**

At the instructor’s discretion, a scientific calculator is allowed in this course either at all times or at the times the instructor deems appropriate. Use of a graphing calculator is prohibited. Also, no phone-calculators or other smart device calculators are allowed in this course, for exams.

**Grading Scale**

 A = 93-100% B - = 80-82.9 D+ = 67-69.9

 A - = 90-92.9 C+ = 77-79.9 D = 63-66.9

 B+ = 87-89.9 C = 73-76.9 D - = 60-62.9

 B = 83-86.9 C - = 70-72.9 F = 0-59.9

Final grades are calculated as follows:

|  |  |
| --- | --- |
| Final Exam | 25% |
| Quizzes |  5% |
| Homework  | 10% |
| Unit Exams (at least 4) | 60% |
| Total | 100% |

* The Final Exam and Unit Exams must be proctored. (No take-home exams, no open-book exams, or no online exams should be given. No cheat cards are allowed.)
* The majority of exams must be work-out problems. To earn full credit, students must show their work. Multiple choice exams are discouraged.

**Grades and Credit**

Your UVU grade for this class will become part of your permanent college transcript and will affect your GPA. A low grade in this course can affect college acceptance and scholarship eligibility.

**University**

**Academic Integrity**

Utah Valley University expects all students to maintain integrity and high standards of individual honesty in academic work, to obey the law, and to show respect for others. Students of this class are expected to support an environment of academic integrity, have the right to such an environment, and should avoid all aspects of academic dishonesty. Examples of academic dishonesty include plagiarizing, faking of data, sharing information during an exam, discussing an exam with another student who has not taken the exam, consulting reference material during an exam, submitting a written assignment which was authored by someone other than you, and/or cheating in any form. Violators of this policy will be subject to disciplinary action. Cheating will not be tolerated. It will result in a FAILING grade for the course.

In keeping with UVU policy, evidence of academic dishonesty may result in a failing grade in the course and disciplinary review by the college. Additional information on this topic is published in the student handbook and is available on the UVU website.

**Students with Disabilities**

**Students who need accommodations because of a disability** may contact the UVU Accessibility Services Department (ASD), located on the Orem Campus in LC 312. To schedule an appointment or to speak with a counselor, call the ASD office at 801-863-8747. Deaf/Hard of Hearing individuals, email [nicole.hemmingsen@uvu.edu](https://owa.uvu.edu/owa/redir.aspx?C=r3xUa4y2bkalWljgIj1VXM3KzYlusNIIESMqIpkF5USfG-H3cUMstYl8DNScKc_quB49PvOQ-l0.&URL=mailto%3anicole.hemmingsen%40uvu.edu) or text 385-208-2677.

**Learning Strategist**

The Learning Strategist offers learning assistance to students who are having problems with test taking, concentration, attendance, and all types of study skills. The Learning Strategist is Pat Nelson in LC-404H or at 801-863-7418. Website http://www.uvu.edu/learningstrategies/

**Math Lab**

The Math Lab, located in LA 201, is a free service. Tutors are available to give one-on-one help with concepts, skills and applications. The Math Lab hours are Monday-Thursday 8:00 am – 8:00 pm, Friday 8:00 am – 5:00 pm, and Saturday 10:00 am – 3:00 pm. The Math Lab also has Online Tutoring at https://uvu.upswing.io/. Website http://www.uvu.edu/mathlab/#

**Dropping the Class**

20 October is the last day to drop the course without it showing on your transcript

20 November is the last day to withdraw from the class.

If you drop the high school class, you must also withdraw from the UVU class to avoid receiving an E or UW (unofficial withdrawal).