



Course Syllabus Math 151 Section: 492

College Algebra – Summer Semester 2017

Chugiak-Eagle River Campus, Room 224

Instructor: Mr. Russ Frith

E-mail: rfrith@alaska.edu

Time: Monday, Wednesday 5:30 – 8:00 pm

Location: Room 224

Office Hours: One hour after class

Phone: 907-223-9657 (C)

Best way of contact: Email.

Special Note: I usually check my email several times during the day.

Prerequisite: Undergraduate – UAA level MATH A105; Minimum grade of C or appropriate SAT or ACT scores or approved UAA placement test required.

Course Description: This course will cover: equations and inequalities, function theory, solution of equations greater than second degree, determinants and matrices, systems of equations and inequalities, exponential and logarithmic functions, graphs of equations of conic equations. Special topics include the binomial theorem, sequences and series, and mathematical induction.

Special Note: This is summer term class. The implication is that the duration of the class is shorter but the amount of work that needs to be completed remains the same as that in a fall/spring class. Subsequently, you will have to work harder and faster than during a long term.

Required Material: College Algebra by Stitz and Zeager

Free on-line textbook : <http://www.stitz-zeager.com/szca07042013.pdf>

Optional Material: Graphing calculator (TI-84), graph paper (four or five squares/inch)

Course Objectives:

1. Study the characteristics of functions,
2. Apply algebra skills to model and to analyze real world problems,
3. Communicate effectively using mathematical terminology,
4. Analyze and defend plausible solutions.

Instructional Strategies: Lecture, group work, tests.

Testing Methods: Mostly short answer, application and modeling. No make-up exams. If you miss one regular exam, then either the preceding or succeeding regular exam will count as double. Any subsequent missed regular exam will count as zero points. The final is comprehensive. Each test is worth 100 points, and the final is worth 200 points.

Take-home Tests: Three take-home tests each worth 50 points. You may work in no more than groups of three.

Responsibility: If you miss a class or a test, it is your responsibility to contact the instructor to find out what you missed for that day's class. Remember, this is a summer term class and the pace is much faster than a class during a long semester and if you miss a class, then you will miss a lot of information. Remember to turn cell phones on vibrate during class.

Attendance: Is recommended and you are responsible for information covered during the class. A copy of the lecture notes will be found on the class website.

Grading Policy: Grades will be based on the following total point system:

Three (3) Tests (100 pts each): 300 pts

Three (3) Take-home Tests (50 pts each): 150 pts

Final: 200pts

100% - 90% A

79% - 70% C

Below 60% F

89% - 80% B

69% - 60% D

Incomplete grades for the semester will not be given. Grades will be posted on blackboard.

It is recommended that you keep all work until you receive your final grade.

Cheating, Plagiarism, or Other Forms of Academic Dishonesty:

Disciplinary action may be initiated by the university and disciplinary sanctions imposed against any student found responsible for committing, attempting to commit, or intentionally assisting in the commission of academic dishonesty. Academic dishonesty applies to examinations, assignments, laboratory reports, fieldwork, practicums, creative projects, or other academic activities. The following examples constitute forms of academic dishonesty prohibited by the Student Code of Conduct and are not intended to define prohibited conduct in exhaustive terms, but rather to set forth examples to serve as guidelines for acceptable and unacceptable behavior:

- a) presenting as their own the ideas or works of others without proper citation of sources;
- b) utilizing devices not authorized by the faculty member;
- c) using sources (including but not limited to text, images, computer code, and audio/video files) not authorized by the faculty member;
- d) providing assistance without the faculty member's permission to another student, or receiving assistance not authorized by the faculty member from anyone (with or without their knowledge);
- e) submitting work done for academic credit in previous classes, without the knowledge and advance permission of the current faculty member;
- f) acting as a substitute or utilizing a substitute;
- g) deceiving faculty members or other representatives of the university to affect a grade or to gain admission to a program or course;
- h) fabricating or misrepresenting data;
- i) possessing, buying, selling, obtaining, or using a copy of any material intended to be used as an instrument of assessment in advance of its administration;

- j) altering grade records of their own or another student's work;
- k) offering a monetary payment or other remuneration in exchange for a grade;
- l) violating the ethical guidelines or professional standards of a given program.

Smoking:

Please don't smoke (anything). If you need to then go home. Here's a link to U.A.A.'s smoking policy: <http://www.uas.alaska.edu/policies/tobacco.html>. This applies to marijuana too.

Drop Policy:

I will not drop students from the class. It is incumbent upon you to manage this class. If you do not complete the work, I will report a failing grade. Generally, this is the only time anyone ever receives an F in my class.

Academic Success and Support Services:

If you need disability-related accommodations, please notify Disability Support Services at 786-4530.

Tentative Class Schedule for Sumer 2017

Date	Lecture Sequence	Tests
23 May	Class Rules 1.1 Sets of Real Numbers & Cartesian Coordinates 1.2 Relations 1.3 Functions 1.4 Function Notation 1.5 Function Arithmetic	
25 May	1.6 Graphs of Functions 1.7 Transformations 2.1 Linear Functions 2.2 Absolute Value	
30 May	2.3 Quadratic Functions 2.4 Inequalities 2.5 Regression	Take-home Test #1 Assigned
1 June	3.1 Graphs of Polynomials 3.2 Factor & Remainder Theorems 3.3 Real Zeros of Polynomials 3.4 Complex Zeros & the Fundamental Theorem of	

	Algebra	
6 June	Review for Test #1 on Chapters 1,2, and 3. 4.1 Introduction to Rational Functions 4.2 Graphs of Rational Functions	Take-home Test #1 due start of class
8 June		Test #1
13 June	4.2 Graphs of Rational Functions 4.3 Rational Inequalities 5.1 Function Composition	
15 June	5.2 Inverse Functions 5.3 Special Algebraic Functions 6.1 Intro to Exponential & Logarithmic Functions 6.2 Properties of Logarithms	Take-home Test #2 Assigned
20 June	6.3 Exponential Equations & Inequalities 6.4 Logarithmic Equations & Inequalities 6.5 Applications of Exponential & Logarithmic Functions	
27 June	Review for Test #2 on Chapters 4,5, and 6. 7.1 Introduction to Conics 7.2 Circles	Take-home Test #2 due start of class
29 June		Test #2
6 July	7.3 Parabolas 7.4 Ellipses	
11 July	7.5 Hyperbolas 8.1 Systems of Linear Equations: Gaussian Elimination 8.2 Systems of Linear Equations: Augmented Matrices	Take-home Test #3 Assigned
13 July	8.3 Matrix Arithmetic 8.4 Systems of Linear Equations: Matrix Inverses	
18 July	8.5 Determinants & Cramer's Rule	

	8.6 Partial Fraction Decomposition	
20 July	8.7 Systems of Non-Linear Equations & Inequalities Review for Test #3, Chapters 7 & 8	Take-home Test #3 due start of class
25 July		Test #3
27 July	9.1 Sequences 9.2 Summation Notation 9.3 Induction 9.4 Binomial Theorem	
1 August	Review for Final Exam: Comprehensive	
3 August		Final Exam