

## CHAMINADE UNIVERSITY: MA 103 COLLEGE ALGEBRA

**Instructor:** Dr. Torrance L. Trevorrow

**Class Times:** Fridays – 17:30-21:40 January 8 – March 21.

**Office Hours:** Before or after class, or by arrangement I usually schedule and additional 2-4 group sessions during the semester, near Pearl Harbor. (Oahu)

**Email:** All email should be via [torrance.trevorrow@adjunct.chaminade.edu](mailto:torrance.trevorrow@adjunct.chaminade.edu). If for any reason the server is unavailable then the instructor may be contacted via [numeroprime@yahoo.com](mailto:numeroprime@yahoo.com) (make sure MA103 Online is in the subject line).

**Text Book:** Algebra for College Students Seventh Edition by R. David Gustafson and Peter D. Frisk. Brooks/Cole Publishing Company, ISBN 0-534-46387-8. This is a very popular text used by major universities. If ordered online, please make sure to pay for priority shipping; media rate takes 6-10 weeks.

**Supplemental:** For those with interest and time, the following books are also excellent for basic review: Algebra for the Clueless by Bob Miller, and Algebra for the Utterly Confused by Larry Stephens. The “Dummies, Idiots, or Demystified: series are also useful.

**Course Description:** (From the catalog) Algebra knowledge and skills for college studies: Sets and real number system; exponents and polynomials, rational and radical expressions; equations and inequalities with applications, including equations containing rational or radical expressions and systems of equations; beginning analytic geometry and functions; exponential and logarithmic functions; the binomial theorem, and progressions. Fulfills Track B general education requirement in mathematics. Not open to students with credits in MA 110, MA 210, or other higher numbered mathematics courses. Offered every semester. Prerequisites: MA 102 or placement.

**Course Goals:** To improve student skills in reading, interpreting, and communicating mathematics using numeric, analytic and graphical methods. This course will place an emphasis on increasing the student's mathematical skills and knowledge as it pertains to algebra and algebraic systems.

**Course Objectives:** At the completion of this course the student should be familiar and demonstrate competency with the following concepts and topics.

Using equations to solve problems	Graphing Linear Equations, Writing equations of lines	Solving by Graphing, Elimination, Using Matrices
Linear Inequalities, Linear Programming	Polynomials and Functions, Factoring, Greatest Common Factor	Rational Functions, Proportion, Variation, Complex Fractions, Dividing Polynomials.
Radical Expressions, Applications, Radical Equations and Complex Numbers.	Solving Quadratics by completing the square, quadratic equation, graphs of quadratic functions, other non-linear	Exponential and Logarithmic Functions, equations and graphing, Other Topics

**Methodology:** Most of your learning will come from meticulous study of the text, homework assignments, class participation and a research project/presentation. Multiple quizzes, discussions, and articles will be used to reinforce learning. You will have the opportunity to learn through careful presentation of assigned work, as well as from other students contributions.

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**Success:** All courses require a high degree of personal responsibility and time management skills. Grades tend to be proportional to the personal effort that is taken for the learning process and seeking immediate clarification for enigmatic areas.

Personal satisfaction will come from studying in earnest, asking for help when you need it, and not solely depending on the text or a quick read. Universities often recommend 2-3 hours of study time for each hour of class time. A three credit course would require about 12 hours per week for study, research, reading, and assignments.

**Grading:** The contributions of various components of the course are indicated as percentages. Changes may be made to the course content and grading at the instructor's discretion.

Tests and Quizzes	60% (written)
Final Exam (proctored)	25% (written)
Assignments	15% (to be specified)

A	90% +	Outstanding Scholarship and excellent initiative with course
B	80% +	Superior Quality done in a consistent intellectual manner
C	70% +	Satisfactory showing competent understanding of course
D	60% +	Lowest passing grade, inadequate for prerequisites
F	0-59%	Unsatisfactory understanding and coursework

**Attendance:** Attendance is vital to your success. I can not teach you if you are absent. Each student is accountable for the information presented in class, if you missed material please coordinate with your fellow students. Missing two classes (20% of the course) will result in an automatic grade reduction: more than two automatic failure. Late arrival or early departure will result in  $\frac{1}{2}$  attendance for that class. Exception will be made for properly documented medical emergency or verified military orders. The instructor will determine the appropriate credit if applicable which is usually an average for related course work.

**Academic Integrity:** All material submitted in fulfillment of course requirements must be done by the registered student. Cut and paste research, copying, substitute work, or sharing exams will result in a grade of zero and possible failure for the course.

**Supplies:** Text Book, Notebook, Ruler, Graph paper, and a Scientific or Graphing Calculator. A calculator may be used to check your work but should not be the basis for a solution. A cell phone or PDA is not permitted for exams.

A three ring binder is an excellent way of organizing information. Commonly used dividers include: Syllabus, Homework, Articles, Quizzes, Notes, and Questions to ask.

**Resources:** I usually offer an additional 2-4 Saturday group sessions during the semester. In addition the internet, library and book stores also offer additional perspectives.

**Requirements:** Please pre-read the next weeks sections. You are required to seek clarification on any material that you do not understand. Polya's problem solving model is to be used for all questions unless otherwise indicated. You are expected to maintain standards of academic performance and comply with all CUH policies.

**Finals:** Specific information will be provided towards the end of the semester. Usually the final is written, closed book, no notes, calculator permitted. Formulas are normally provided.

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## COURSE SCHEDULE

Week	Date	Sections	Topics	** Chapter Summary Questions (other assigned questions )
1		1.1-1.7	Review of Basic Algebra Arithmetic, Exponents, Scientific Notation, Solving Equations, Applications	
2		2.1-2.5	Graphing Linear Equations, Writing Equations of Lines, Functions and Graphing	
3		3.1-3.5	Systems of Equations, Solutions by Graphing, Matrices, Determinants	
4		4.1-4.5	Linear Inequalities, Systems of Inequalities, Linear Programming	
5		5.1-5.8	Polynomials and Polynomial Functions, GCF, Factoring Trinomials, Solving Equations by Factoring	
6		6.1-6.7	Rational Expressions, Proportion and Variation, Complex Fractions, Dividing Polynomials	
7		7.1-7.7	Radicals Expressions and Applications, Rational Exponents, Complex Numbers	
8		8.1-8.5	Solving Quadratic Equations, Discriminant , Graphs of Quadratic Functions, Non-Linear Inequalities	
9		10.1-10.6	Exponential and Logarithmic Functions, Base "e", "10" Properties of Logarithms	
10		13.7-13.9	Probability, Mathematical Expectation, FINAL EXAM	

**Notes:** All the the \*\*Chapter Summary Questions are assigned, and due at the beginning of next class. They may be collected and graded as part of the quiz grade. Please email if you need intermediary help. Space has been left to incorporate additional questions to be given during class.