



Purpose: It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of Wharton County Junior College, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction.

Course Title – Beginning Algebra

Course Prefix and Number - MATH 0308

Department - MATH

Division - Math and Physical Sciences

Course Type: (check one)

- Academic General Education Course (from ACGM – but not in WCJC Core)
 Academic WCJC Core Course
 WECM course (This course is a Special Topics or Unique Needs Course: Y or N)

Semester Credit Hours # : Lecture hours# : Lab/other hours # 3:3:0

Equated Pay hours for course - 3

List Lab/ Other Hours
Lab Hours 0
Clinical Hours 0
Practicum Hours 0
Other (list) 0

Course Catalog Description - Designed to build on the skills developed in pre-algebra mathematics, to continue preparation for THEA and to provide a foundation for the Intermediate Algebra course. Topics include operations with algebraic expressions, linear inequalities, word problems, graphing, polynomials, factoring, rational expressions, rational equations, applications to geometric figures, and geometric reasoning in problem solving.

Prerequisites/Corequisites - THEA math score of 210-229.

Approvals – *the contents of this document have been reviewed and are found to be accurate.*

Prepared by Dale Neaderhouser	Signature 	Date 11-1-07
Department Head James Kelley	Signature 	Date 11-1-07
Division Chair Dr. Kirby Lowery	Signature 	Date 11-1-07
Vice President Dr. Ty Pate	Signature 	Date 11-8-07



I. Topical Outline – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, clinical or other non lecture instruction):

Major areas of coverage:

1. Review of arithmetic, discussion of real numbers and their properties and examination of how real numbers are added, subtracted, multiplied, divided, and raised to powers.
2. Study of the principles used to solve equations and inequalities, and use of equations to solve applied problems.
3. Examination of types of graphs commonly occurring in the media, study of the graphs of equations, and graphing of equations in slope-intercept form and point-slope form.
4. Addition, subtraction, and multiplication of polynomials.
5. Factoring polynomials, using factoring to solve quadratic equations and problem solving that involves quadratic equations.

II. Course Learning Outcomes

Course Outcome/Objective	Assessment Method
1 Find the value of the unknown in one-variable equation 2. Express one variable in terms of a second variable in a two variable equation. 3. Solve word problems 4. Identify points from their coordinates, determine the coordinates of points, and graph sets of ordered pairs 5. Graph equations and inequalities 6. Find the slope and intercept of a line. 7. Add, subtract, and multiply polynomial expressions. 8. Factor polynomials. 9. Solve quadratic equations and word problems that require quadratic equations. 10. Solve problems involving two- and three-dimensional geometric figures using formulas. 11. Solve right triangles problems using the Pythagorean theorem.	1. <u>Hour exam and department final.</u> 2. <u>Hour exam and department final.</u> 3. <u>Hour exam and department final.</u> 4. <u>Hour exam and department final.</u> 5. <u>Hour exam and department final.</u> 6. <u>Hour exam and department final.</u> 7. <u>Hour exam and department final.</u> 8. <u>Hour exam and department final.</u> 9. <u>Hour exam and department final.</u> 10. <u>Hour exam and department final.</u> 11. <u>Hour exam and department final.</u>

III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.

- Beginning Algebra by K. Elayn Martin-Gay, 4th edition, Prentice-Hall (required)
- Student Solution Manual (optional)
- Calculator (instructor’s discretion)

IV. Suggested Course Maximum - 25

V. List any specific spatial or physical requirements beyond a typical classroom required to teach the course.
none

VI. Course Requirements/Grading System – Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

Critical Thinking competency: This course requires more than memorization and comprehension of factual information. It emphasizes the application, analysis, synthesis, and evaluation of concepts.

Grading System:

- | | |
|---|--------|
| a. Average of one hour exams | 40-85% |
| b. Daily participation, quizzes, extra credit | 0-15% |
| c. Homework grade | 0-20% |
| d. Comprehensive Department Final | 15-30% |
- Or grading as specified by the instructor.

VII. Curriculum Checklist

- **Academic General Education Course** (from ACGM – but not in WCJC Core)
No additional documentation needed

- **Academic WCJC Core Course**
Attach the Core Curriculum Checklist, including the following:
 - Basic Intellectual Competencies
 - Perspectives
 - Exemplary Educational Objectives

- **WECM Courses**
Attach the following:
 - Program SCANS Matrix
 - Course SCANS Competencies Checklist