|  |
| --- |
| HARTNELL COLLEGE COURSE OUTLINE |
| CC Approval:  Board of Trustees: 11/10/2009 Last Revised: |
| DESIGNATOR & NUMBER: MAT 123L2 |
| COURSE TITLE: Intermediate Algebra Level 2 |
| CREDIT UNITS: 1 |
| FACULTY INITIATOR: Kelly Locke |
| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | CONTACT HOURS PER SEMESTER: | |  | | --- | | Lecture: 0 | | Lab: 48 – 54 | | DHR: 0 | | Other: | | |
| GRADING BASIS: |
| Grade Only |
| PREREQUISITE:   * MAT 123L1: Intermediate Algebra Level 1 with a grade of "C" or better |
| COREQUISITE: |
| ADVISORY: |
| COURSE DESCRIPTION: The second course in a four-course sequence that is equivalent to MAT 123. A study of relations and functions, variation, polynomials and factoring, and solving equations by factoring. Not open to students who have completed Math 123 with a grade of "C" or better. |
| COURSE OBJECTIVES: Upon satisfactory completion of the course, students will be able to:   |  |  |  | | --- | --- | --- | |  |  |  | |  | 1. | recognize, analyze and employ the most effective strategies to solve polynomial equations and judge the reasonableness of the results. | |  | 2. | compare and contrast relations, functions, equations and expressions. | |  | 3. | compare and contrast the equations and graphs of linear and polynomial functions. | |  | 4. | simplify, manipulate, and evaluate expressions and functions. | |  | 5. | model real world situations found in various fields of study related to polynomials. | |  | 6. | solve applications related to polynomials. | |  | 7. | use appropriate technology to enhance their mathematical thinking. | |  | 8. | communicate the mathematics of the topics of this course in both oral and written form. | |
| COURSE CONTENT:   1. Relations, Functions, and Graphs    1. Definitions and identification of functions    2. Evaluating functions    3. Graphing functions 2. Exponents and Polynomials 3. Quadratic Equations |
| INSTRUCTIONAL METHODOLOGY: |
| CLASSROOM |
| |  | | --- | | Lab Activity | | Individual Assistance | | Audiovisual (including PowerPoint or other multimedia) | | Computer Assisted Instruction | | Demonstration | | Requires a minimum of three (3) hours of work per unit including class time and homework. | |
| METHODS OF EVALUATING OBJECTIVES OR OUTCOMES: |
| Methods of evaluation to determine if students have met objectives may include, but are not limited to the following: |
| |  |  | | --- | --- | | CLASSROOM | EXPLANATION | | Class Activity | Demonstration of mathematical techniques in small groups and individually, as needed. | | Lab Activity | Problem solving using computer software or textbook that provides immediate feedback about the answers. | | Written Assignments | Problem solving using computer software or textbook that provides immediate feedback about the answers. | |
| |  |  | | --- | --- | | EXAMS | EXPLANATION | |  |  | | Comprehensive Final | Students will take a proctored final exam that covers materials from all topics from the course. A comprehensive final is required for all sections. Final exam will consist of a combination of problem types including problem solving, multiple choice, and true/false. | | Problem Solving | Assignments and tests will include problems that require the use of problem solving strategies. Types of problems will include, but are not restricted to, solving real-world problems using the concepts learned in the class. | | Skill Demonstration | Assignments and tests will include skill demonstration problems including those simulating real-world scenarios. | | Objective Test | All exams will be proctored and will include completely worked problems. Exams may also include some multiple choice and true/false. | | Quizzes | Quizzes may be used at the discretion of the instructor. | |  | | |
| MINIMUM STUDENT MATERIALS:  Textbook(s) similar to:   * Miller, J., M. O'Neill, & N. Hyde. *Intermediate Algebra.* 1st ed. New York: McGraw Hill, 2007. * Scientific calculator * Online materials such as ALEKS web-based learning system for mathematics. http://www.aleks.com/highered |
| 2312 |