Course Description:
MTH 099: Basic Algebra & Trigonometry: A review of basic algebra and trigonometry: operations of real numbers and algebraic expressions, negative and fractional exponents, polynomials and fractional expressions, equations and systems of equations, inequalities, right triangle trigonometry and applications.

Learning Objectives:
Students who complete this course will:
- Demonstrate study skills and habits needed to succeed in a college math class
- Use critical thinking to solve algebraic problems
- Know algebraic vocabulary and techniques for the topics listed

Topics include:
- Classification of numbers - real, rational/irrational, integers/whole numbers/counting numbers
- Order of operations, properties of real numbers
- Solving linear equations involving distributive properties and/or ratios
- Word problems requiring setting up linear equations and solving
- Coordinate system, slope of a straight line, equation of straight line in different cases, parallel and perpendicular lines
- Basic linear inequalities
- Functions, checking whether a relation is a function, domain, range, simple calculations using functions
- Solving systems of linear equations by substitution
- Laws of Exponents
- Multiplication of Polynomials
- Simplifying by factoring (G.C.F)
- Special factoring methods, Factoring Trinomials
- Radicals, Simplifying radicals using laws of exponents
- Multiplication and Division of radicals, Rationalization
- Solving linear equation and systems of linear equations
- Slope, intercepts and equation of straight lines, parallel lines and perpendicular lines
- Laws of exponents, multiplying polynomials, factoring trinomials, special factoring methods
- Quadratic formula, vertex of parabola and simple transformations of a parabola
- Definition and basics of exponential and logarithmic functions
- Basic Trigonometry
Text:
PREALGEBRA, ALGEBRA, & TRIGONOMETRY by Margaret Lial, URI custom edition; Pearson Publishing Company.

Attendance:
Students are expected to attend all scheduled class times. Cell phones should be turned off during class. If you use your cell phone or it goes off, you will be asked to leave and expected to find out about any missed work.

Class Procedure:
For each hour of class, the first 10-15 minutes is devoted to answering questions about previously covered material. Following the question-answer period, there is a traditional lecture about new material for approximately 20 minutes. Immediately after the presentation there will be an opportunity for problem solving in which students are expected to actively participate.

Note: In order for students to receive the proper benefit from the classroom experience, it is assumed that each student has read the appropriate sections for the material that will be presented before the class in which it is presented.

Grading:
The course is based on a total of 500 points.

Exam 1(Ch1-3): 100 points
Exam 2(Ch. 5-7 & 9): 100 points
Final Exam(Comprehensive): 200 points (5/7/2012)
Quiz Ave.: 100 points

Quiz scores: You may use your homework (not your book or notes) for all quizzes. The lowest score will be dropped and the quiz grade will be calculated as the average of the remaining quiz scores. One missed quiz score can be replaced by the exam score that covers the same material.

Exam scores: The three in-semester exams, as well as the cumulative final exam, are closed-book, closed-note exams.

The final grade is an S for any student that earns 350 points (70%) or more. A grade of U is assigned to any student earning less than 350 points.
Office Hours:

Tuesday  2:00-4:00pm  
Thursday  2:00-4:00pm

And any other time that we can find in common.

<table>
<thead>
<tr>
<th>Week of:</th>
<th>Sections</th>
<th>Topics</th>
<th>Homework exercises</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/23</td>
<td>Introduction, 1.1,1.3-1.6</td>
<td>Addition, Subtraction, Multiplication, &amp; Division of Real numbers. Exponents &amp; Order of Operations</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>1/30</td>
<td>R.1, R.2, 1.2, 1.7,1.8</td>
<td>Fractions, Decimals, Variables, Expressions, Equations, Properties of Real Numbers</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>2/6</td>
<td>2.1-2.7</td>
<td>Solving Linear Equations and Inequalities, Ratios &amp; Proportions</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>2/13</td>
<td>3.1-3.6</td>
<td>Graphing Linear Equations and Inequalities, Functions</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>2/20</td>
<td><strong>No Class- President’s Day</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2/27</td>
<td>5.1-5.7</td>
<td><strong>Exam 1(Ch.1-3)</strong> &amp; Operations on Polynomials</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>3/5</td>
<td>6.1-6.6</td>
<td>Factoring</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>3/12</td>
<td><strong>Spring Break</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/19</td>
<td>7.1-7.4, 7.6</td>
<td>Rational Expressions, Equations, &amp; Functions</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>3/26</td>
<td>9.1-9.7</td>
<td>Roots, Radicals, &amp; Radical Functions</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>4/2</td>
<td>4.1-4.3</td>
<td><strong>Exam 2(Ch.5-7,&amp;9)</strong> Systems of Linear Equations</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>4/9</td>
<td>10.1-10.4</td>
<td>Quadratic Equations and Functions</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>4/16</td>
<td>11.1-11.6</td>
<td>Exponential, Logarithmic, and Inverse Functions</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>4/23</td>
<td>Ch.5 on pg.481</td>
<td>Trigonometric Functions</td>
<td>As assigned on MML</td>
</tr>
<tr>
<td>4/30</td>
<td></td>
<td>Review for Final Exam</td>
<td></td>
</tr>
</tbody>
</table>

***The Final Exam is scheduled for 5/7/2012 at 7pm in the regularly scheduled classroom***