




**THE AMERICAN ACADEMY OF ART**  
**Syllabus for MTH101**  
**FALL 2008**

<b>INSTRUCTOR NAME:</b>	David Cushman
<b>OFFICE HOURS &amp; CONTACT INFORMATION:</b>	<b>Office Hours and Location:</b> By appointment. <b>Email:</b> dcushman@aaart.edu <b>Web Page :</b> http://www.cushmanofscience.com
<b>CREDIT HOURS:</b>	<b>3 Semester Hours</b>
<b>COURSE SCHEDULE:</b>	Monday and Wednesday, 1hr15min
<b>PREREQUISITES:</b>	None
<b>COURSE DESCRIPTION:</b>	Students will understand quantitative concepts and perform basic operations at the college level. This course will present topics in approaches to problem solving, sets, logic, numeration and mathematical systems, geometric systems and elementary computer concepts. Goals: to provide students with quality instruction that allows them to experience mathematics in such a way that they become flexible, analytical thinkers; to provide a climate in which mathematical literacy, the free exchange of mathematical ideas and active engagement in learning mathematics flourish.
<b>TEXTBOOKS AND MATERIALS</b>	
<b>TEXTBOOKS</b>	<u>Required:</u> Lial, Margaret, John Hornsby and Terry McGinnis. <i>Intermediate Algebra</i> . Addison Wesley, 2007 (10 <sup>th</sup> Edition). ISBN: 0321443624  <u>Reference:</u> Tussy, Alan S. and Gustafson, R. David. <i>Basic Mathematics for College Students</i> . Pacific Grove, CA: Brooks/Cole, 1999. [1 <sup>st</sup> edition; 2 <sup>nd</sup> : 2002; 3 <sup>rd</sup> : 2005] QA39.2.T878 1999
<b>REQUIRED RESOURCES &amp; SUPPLIES</b>	Scientific Calculator
<b>LEARNING OBJECTIVES:</b>	<b>Upon completion of this course, the student should be able to do the following:</b>
	<ul style="list-style-type: none"> <li> Discern and appreciate the use of mathematics in many facets of everyday life.</li> <li> Use mathematical models to describe problems encountered in a variety of fields, including but not limited to management science, business, economics, the environment, or the visual arts.</li> <li> Use logic and critical thinking skills to read and analyze technical information found in</li> </ul>

	<p>magazines and newspapers and/or the internet.</p> <ul style="list-style-type: none"> <li>✚ Identify appropriate algorithms and correctly perform them in order to solve elementary problems that emulate some of modern society's complex problems.</li> <li>✚ Create and interpret mathematical graphs and charts.</li> <li>✚ Use technology as an analytic tool to model and solve problems.</li> <li>✚ Write clear, complete, and understandable solutions to problems using correct mathematical notation.</li> <li>✚ Work in small groups on group problems or projects.</li> </ul>								
<b>INSTRUCTIONAL METHODS:</b>	<p>The weekly reading assigned from the class text will be the foundation for in-class exercises and discussion. Most class periods will be focused on practicing the application of the concepts presented in the text through class discussion, writing assignments, and small group discussions and presentations. Completing the working questions from the text will help you to begin to engage the theories in the text so that in-class practice can further clarify those concepts. Some additional techniques for analysis will be presented in class. You will be expected to take notes or follow along on class handouts.</p>								
<b>GRADING:</b>	<p>Grades for this course are determined by the completion of a variety of assignments and projects as well as the quality and frequency of active class participation. Students are expected to complete all assigned reading, in-class exercises and assignments. Completion of the midterm and final exams are required to pass the course. Grades will be calculated as follows:</p> <table style="margin-left: 40px;"> <tr> <td>✚ Homework</td> <td style="text-align: right;">25%</td> </tr> <tr> <td>✚ Exam 1</td> <td style="text-align: right;">20%</td> </tr> <tr> <td>✚ Exam 2</td> <td style="text-align: right;">20%</td> </tr> <tr> <td>✚ Final Exam</td> <td style="text-align: right;">35%</td> </tr> </table>	✚ Homework	25%	✚ Exam 1	20%	✚ Exam 2	20%	✚ Final Exam	35%
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<b>COURSE POLICIES:</b>	<p>All assignments are due on the date specified on the syllabus or as specified by the instructor.</p> <p>Assignments will be due at the beginning of each class. In many cases, the assignment will be part of the in-class exercise for that day.</p>								
<b>ATTENDANCE:</b>	<p>Two (2) is the maximum number of days you are allowed to miss per semester before a failing grade will be given (regardless of class grades) in this class. This course will move at a fast pace and essential information will be presented in class. It is strongly recommended that you attend every class, using absences only in the case of emergencies. ATTENDANCE will be taken within the first five minutes of each class. Make sure that you are in class for the duration of the entire period. THREE TARDY instances or LEAVING EARLY will equal ONE ABSENCE.</p>								
<b>MAKE-UP WORK:</b>	<p>Make up work will be accepted one week after the due date. If you have a doctor's notice or other official notice for your absence, you will receive full credit for the late work. If not, the late work will be lowered by one letter grade. No late work will be accepted that is more than one week overdue.</p>								
<b>SPECIAL NEEDS:</b>	<p>Any student with special needs or difficulties in learning and/or in completing course requirements should notify the instructor immediately so that available, reasonable accommodations can be arranged. Documentation of the student's disability and how it impacts their participation must also be submitted to the Academic Dean.</p>								

**COURSE TOPICAL OUTLINE (SUBJECT TO CHANGE):**

<b>WEEK/DATE</b>	<b>CLASS TOPICS &amp; OBJECTIVES</b>	<b>READINGS &amp; ASSIGNMENTS</b>
<b>1: Sept 1/3</b>	<b>Course introduction, pre-test</b>	
<b>2: Sept. 8/10</b>	<b>Basics:</b> whole numbers, inequalities, divisibility, order of operations, fractions, clock arithmetic	Chapters 1-3
<b>3: Sept. 15/17</b>	<b>Basics continued...</b>	Chapters 1-3; <b>HW 1 due</b>
<b>4: Sept. 22/24</b>	<b>Algebra 101</b>	Chapter 8; <b>HW 2 due</b>
<b>5: Sept. 29/Oct. 1</b>	<b>Review, Exam 1</b>	<b>HW 3 due</b>
<b>6: Oct. 6/8</b>	<b>Egyptian fractions, rational vs. irrational numbers</b>	
<b>7: Oct. 13/15</b>	<b>Geometry:</b> polygons, perimeter, area, volume	Chapter 9; <b>HW 4 due</b>
<b>8: Oct. 20/22</b>	<b>Triangles:</b> Pythagorean theorem, trigonometry	Chapter 9
<b>9: Oct. 27/29</b>	<b>Triangulation and Circles</b>	Chapter 9; <b>HW 5 due</b>
<b>10: Nov. 3/5</b>	<b>Review, Exam 2</b>	<b>HW 6 due</b>
<b>11: Nov. 10/12</b>	<b>Exponentiation:</b> squaring, square rooting, logarithms,	
<b>12: Nov. 17/19</b>	<b>Complex Numbers</b>	
<b>13: Nov. 24/26</b>	<b>Plotting and Graphing</b>	<b>HW 7 due</b>
<b>14: Dec. 1/3</b>	<b>Statistics:</b> mean, median, mode, standard deviation	Chapter 7
<b>15: Dec. 8/10</b>	<b>Review, Final Exam</b>	<b>HW 8 due</b>
<b>16: Dec. 15/17</b>	<b>Course conclusion, Evaluations</b>	