

# FEMALE MATH

## Course Syllabus: Winter/Spring 2006

Topics	Description	Class Number
<b>Theory*</b>		
Symbolic Logic	Introduction to the methodology of solving problems <ul style="list-style-type: none"> <li>• simple, compound and conditional statements</li> <li>• truth tables</li> <li>• formal &amp; informal proofs of validity</li> </ul>	3/7, 3/9
Numbers and digits	<ul style="list-style-type: none"> <li>• Introduction to the Real Number System</li> </ul>	3/14
Place Value↓	<ul style="list-style-type: none"> <li>• writing real numbers (using standard, expanded &amp; exponential notations)</li> <li>• evaluating (comparing &amp; ordering) real numbers</li> <li>• identifying significant digits within real numbers</li> <li>• rounding real numbers</li> <li>• multiples of 10 (introduction to scientific notation)</li> </ul>	3/14 3/16
The Number Line↓	<ul style="list-style-type: none"> <li>• introduction to concepts and notation</li> <li>• graphing equalities and inequalities</li> </ul>	3/23
<b>Operations with Real Numbers</b>		
Addition	<ul style="list-style-type: none"> <li>• simple &amp; complex</li> <li>• interpreting and solving word problems/ estimation</li> </ul>	3/21
Subtraction↓	<ul style="list-style-type: none"> <li>• simple &amp; complex</li> </ul>	3/21
Multiplication & Division	<ul style="list-style-type: none"> <li>• simple &amp; complex</li> <li>• times tables (factors &amp; multiples)</li> <li>• perfect squares &amp; square roots</li> <li>• exponents &amp; radicals</li> <li>• order of operations (PEMDAS)</li> </ul>	3/23 3/23
Fractions & Mixed Numbers↓	<ul style="list-style-type: none"> <li>• forms (proper &amp; improper) &amp; mixed numbers</li> <li>• converting (proper to mixed numbers &amp; <i>vice versa</i>)</li> <li>• operations (with same denominators)</li> <li>• operations (with different denominators)</li> </ul>	3/23 3/28, 3/30
<b>Applications‡</b>		
Using a Calculator	<ul style="list-style-type: none"> <li>• converting fractions to decimals and <i>vice versa</i></li> </ul>	4/4
Percents	<ul style="list-style-type: none"> <li>• basic and complex</li> </ul>	4/4
Measurement ↓	<ul style="list-style-type: none"> <li>• ratios and proportions 1 (gears, unit pricing, etc.)</li> <li>• dimensional analysis &amp; conversion factors:               <ul style="list-style-type: none"> <li>◦English to English</li> <li>◦metric to metric</li> <li>◦English to metric and <i>vice versa</i></li> </ul> </li> <li>• using a ruler (English &amp; metric)</li> <li>• using a protractor &amp; compass</li> <li>• ratios and proportions 2 (scale drawings, maps)</li> </ul>	4/4 4/6 4/11
Geometry: Euclidean & Cartesian↓	<ul style="list-style-type: none"> <li>• points, lines, angles, planes &amp; solids</li> <li>• formulæ (perimeter, circumference, area, volume, distance, midpoint, slope, etc)</li> </ul>	4/13, 4/18
Introduction to Algebra↓	<ul style="list-style-type: none"> <li>• manipulating algebraic equations</li> <li>• interpreting and solving algebraic word problems</li> </ul>	4/20
Review↓	<ul style="list-style-type: none"> <li>• preparation for Final</li> <li>• test-taking strategies</li> </ul>	4/25
Final‡		4/27
<b>*no calculators permitted</b>		
<b>‡calculators required</b>		
<b>↓reducing math-anxiety exercises</b>		

***FREE*** classes for women will be held on Tuesday and Thursday, from 5:00 – 9:00 p.m.