## MTH 111 (Fall 2016) - Calendar and Syllabus

The following calendar gives a timetable for the course. Your class may be slightly behind or ahead at any given time. These problems may be done in class or assigned as homework. You should work out all of the problems given below and others if possible. A marking of (\*) indicates that only part of that section will be covered in the course. A notation of "1-20" indicates that you should attempt *all* problems between 1 and 20 (inclusive).

	Week	Sections/Events/Exams	Homework Problems
0	Sept. 5   Sept. 9	<i>First Day of Classes Wed. Sept.</i> 7 (1.2) Linear and Absolute Value Inequalities (PCA 1)	(1.2) 1-25, 32, 33, 35, 36, 45-57 odd, 67-72
1	Sept. 12   Sept. 16	(1.3) Equations and Graphs in Two Variables* (PCAs 2, 3) (1.4) Linear Equations in Two Variables (PCAs 2, 3)	(1.3) 1-14, 53-74 (1.4) 1-45 odd, 53-66
2	Sept. 19   Sept. 23	<ul> <li>(1.5) Functions (PCA 4)</li> <li>(1.6) Graphs of Relations and Functions (PCAs 2,4)</li> <li>(1.7) Families of Functions, Transformations, and Symmetry (PCAs 1, 2, 4)</li> </ul>	(1.5) 11-18, 20, 24-30 even, 31, 33, 35, 37-68, 74-88 (1.6) 1-42, 47, 48, 55-67 (1.7) 1-17 odd, 18-24, 35-67 odd, 68-74, 79, 81, 85
3	Sept. 26   Sept. 30	<ul> <li>(1.8) Operations with Functions (PCA 4)</li> <li>(1.9) Inverse Functions (PCAs 2,4)</li> <li>Pretest 1 Sept. 29 (TTH classes) or Sept. 30 (MWF classes)</li> <li>Last day to drop without "W" on Transcript Wed. Sept. 28</li> </ul>	(1.8) 1, 4, 7, 13, 15, 19, 21, 23, 27, 29-75 (1.9) 1-21, 45-52, 61-66
4	Oct. 3   Oct. 7	<ul> <li>(2.1) Quadratic functions and Inequalities (PCAs 1, 2, 4, 5)</li> <li>(2.2) Complex Numbers (PCA 5)</li> <li><i>Exam 1 Thurs. Oct. 6: CBLS 100, 6:30-8:00pm</i></li> </ul>	(2.1) 1-15, 21-26, 33, 37, 41, 45-55, 75, 76 (2.2) 9-20, 41-43, 51, 54, 73-88
5	Oct. 10   Oct. 14	<ul><li>(2.3) Zeros of Polynomial Functions (PCA 5)</li><li>(2.4) The Theory of Equations (PCA 5)</li><li><i>No Class Mon. Oct. 10</i></li></ul>	(2.3) 1-6, 35-40, 51-72 (2.4) 1-63 odd
6	Oct. 17   Oct. 21	<ul> <li>(2.6) Graphs of Polynomial Functions (PCAs 1, 2, 5)</li> <li>(2.7) Rational Functions and Inequalities* (PCAs 1, 2, 4)</li> <li>Last day to drop a class Wed. Oct. 19</li> </ul>	(2.6) 3-8, 13-20, 27-36, 41-50, 53-68, 81-92, 95 (2.7) 1-12, 29-47, 49-56, 81-96
7	Oct. 24   Oct. 28	<ul> <li>(2.7) continued</li> <li>(3.1) Angles and Their Measurements (PCA 8)</li> <li>Pretest 2 Oct. 27 (TTH classes) or Oct. 28 (MWF classes)</li> </ul>	(3.1) 1-16, 23-28, 41-48, 55-60, 67-74
8	Oct. 31   Nov. 4	<ul> <li>(3.2) The Sine and Cosine Functions (PCAs 4, 8)</li> <li>(3.3) The Graphs of Sine and Cosine Functions (PCAs 2, 8)</li> <li><i>Exam 2 Thurs. Nov. 3: CBLS 100, 6:30-8:00pm</i></li> </ul>	(3.2) 3-28 (3.3) 1-39 odd, 51, 55, 65, 69, 70
9	Nov. 7   Nov. 11	<ul> <li>(3.4) The Other Trig Functions and Their Graphs (PCAs 2, 4, 8)</li> <li>(3.5) The Inverse Trigonometric Functions (PCAs 4, 8)</li> <li><i>No Class Fri. Nov. 11</i></li> </ul>	(3.4) 3-28, 51, 55, 67, 71 (3.5) 1-12, 17-28, 33-39, 47, 67, 69, 71
10	Nov. 14   Nov. 18	(3.5) <i>continued</i> (3.6) Right Triangle Trigonometry (PCA 8)	(3.6) 1-14, 23-26, 34-36
11	Nov. 21   Nov. 25	(3.7) Identities* Pretest 3 Nov. 21 (MWF classes) or Nov. 22 (TTH classes) No classes Thanksgiving Break Nov. 24 – Nov. 25	(3.7) 1-31 odd
12	Nov. 28   Dec. 2	<ul> <li>(4.1) Exponential Functions and Their Applications (PCA 6)</li> <li>(4.2) Logarithmic Functions and Their Applications (PCA 9)</li> <li><i>Exam 3 Thurs. Dec. 1: CBLS 100, 6:30-8:00pm</i></li> </ul>	(4.1) 1-17, 19-28, 43-52, 59-64, 81, 83, 91 (4.2) 1-24, 29, 31, 39, 40, 59, 63, 65, 69-83, 93, 97, 98
13	Dec. 5   Dec. 9	(4.3) Rules of Logarithms (PCA 9) (4.4) More Equations and Applications* (PCA 9)	(4.3) 1-20, 33-50 (4.4) 1-20
14	Dec. 12	Review Last Day of Classes Mon. Dec. 12 (Friday Classes Meet)	

## Precalculus Competency Areas (PCAs)

(See MTH111 website for details)

- 1.) Inequalities
- 6.) Radicals and Exponents7.) Algebra
- 2.) Graphs and Graphing3.) Lines
- 3.) Lines4.) Functions
- 8.) Trigonometric Functions9.) Logarithms
- 5.) Factoring and Expanding