

### MTH 111 (Spring 2018) – 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 part(s) of that section will not be covered in lecture. A notation of “1-20” indicates that you should attempt *all* problems between 1 and 20 (inclusive).

	Week	Sections/Events/Exams	Homework Problems
0	Jan. 22   Jan. 26	<b>First day of classes Mon. Jan. 22</b> <b>Introduction and Algebra Assessment</b> (1.2) Linear and Absolute Value Inequalities (PCA 1) (1.3) Equations and Graphs in Two Variables* (PCAs 2, 3)	(1.2) 1-25, 32, 33, 35, 36, 45-57 odd, 67-72 (1.3) 1-14, 53-74
1	Jan. 29   Feb. 2	(1.4) Linear Equations in Two Variables (PCAs 2, 3) (1.5) Functions (PCA 4)	(1.4) 1-45 odd, 53-66 (1.5) 11-18, 20, 24-30 even, 31, 33, 35, 37-68, 74-88
2	Feb. 5   Feb. 9	(1.6) Graphs of Relations and Functions (PCAs 2,4) (1.7) Families of Functions, Transformations, and Symmetry (PCAs 1, 2, 4)	(1.6) 1-42, 47, 48, 55-67 (1.7) 1-17 odd, 18-24, 35-67 odd, 68-74, 79, 81, 85
3	Feb. 12   Feb. 16	(1.8) Operations with Functions (PCA 4) (1.9) Inverse Functions (PCAs 2,4) <b>Last day to drop without “W” on transcript Mon. Feb. 12</b>	(1.8) 1, 4, 7, 13, 15, 19, 21, 23, 27, 29-75 (1.9) 1-21, 45-52, 61-66
4	Feb. 19   Feb. 23	(2.1) Quadratic Functions and Inequalities (PCAs 1, 2, 4, 5) <b>Pretest 1 Feb. 22 (TTH classes) or Feb. 23 (MWF classes)</b> <b>No class Mon. Feb. 19</b>	(2.1) 1-15, 21-26, 33, 37, 41, 45-55, 75, 76
5	Feb. 26   Mar. 2	(2.2) Complex Numbers (PCA 5) (2.3) Zeros of Polynomial Functions (PCA 5) <b>Exam 1 Wed. Feb. 28: Chafee 271, 6:00-7:30 p.m.</b>	(2.2) 9-20, 41-43, 51, 54, 73-88 (2.3) 1-6, 35-40, 51-72
6	Mar. 5   Mar. 9	(2.4) The Theory of Equations (PCA 5) (2.6) Graphs of Polynomial Functions (PCAs 1, 2, 5) <b>Last day to drop a class Mon. Mar. 5</b>	(2.4) 1-63 odd (2.6) 3-8, 13-20, 27-36, 41-50, 53-68, 81-92, 95
<b>Spring Break Mar. 12 – Mar. 18</b>			
7	Mar. 19   Mar. 23	(2.7) Rational Functions and Inequalities* (PCAs 1, 2, 4) <b>Pretest 2 Mar. 22 (TTH classes) or Mar. 23 (MWF classes)</b>	(2.7) 1-12, 29-47, 49-56, 81-96
8	Mar. 26   Mar. 30	(3.1) Angles and Their Measurements (PCA 8) (3.2) The Sine and Cosine Functions (PCAs 4, 8) <b>Exam 2 Wed. Mar. 28: Chafee 271, 6:00-7:30 p.m.</b>	(3.1) 1-16, 23-28, 41-48, 55-60, 67-74 (3.2) 3-28
9	Apr. 2   Apr. 6	(3.3) The Graphs of Sine and Cosine Functions (PCAs 2, 8) (3.4) The Other Trig Functions and Their Graphs (PCAs 2, 4, 8)	(3.3) 1-39 odd, 51, 55, 65, 69, 70 (3.4) 3-28, 51, 55, 67, 71
10	Apr. 9   Apr. 13	(3.5) The Inverse Trigonometric Functions (PCAs 4, 8) (3.6) Right Triangle Trigonometry (PCA 8) (3.7) Identities*	(3.5) 1-12, 17-28, 33-39, 47, 67, 69, 71 (3.6) 1-14, 23-26, 34-36 (3.7) 1-31 odd
11	Apr. 16   Apr. 20	(4.1) Exponential Functions and Their Applications (PCA 6) <b>Pretest 3 Apr. 19 (TTH classes) or Apr. 20 (MWF classes)</b>	(4.1) 1-17, 19-28, 43-52, 59-64, 81, 83, 91
12	Apr. 23   Apr. 27	(4.2) Logarithmic Functions and Their Applications (PCA 9) (4.3) Rules of Logarithms (PCA 9) (4.4) More Equations and Applications* (PCA 9) <b>Exam 3 Wed. Apr. 25: Chafee 271, 6:00-7:30 p.m.</b>	(4.2) 1-24, 29, 31, 39, 40, 59, 63, 65, 69-83, 93, 97, 98 (4.3) 1-20, 33-50 (4.4) 1-20
13	April 30   May 4	Review <b>Last day of classes</b> <b>Mon. April 30</b>	

#### Precalculus Competency Areas (PCAs)

(See MTH111 website for details)

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| 1.) Inequalities            | 6.) Radicals and Exponents  |
| 2.) Graphs and Graphing     | 7.) Algebra                 |
| 3.) Lines                   | 8.) Trigonometric Functions |
| 4.) Functions               | 9.) Logarithms              |
| 5.) Factoring and Expanding |                             |