

**MTH 111 (Fall 2015) – 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).

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

**Precalculus Competency Areas (PCAs)**

(See MTH111 website for details)

- |                             |                             |
|-----------------------------|-----------------------------|
| 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 |                             |