## MTH 034

## Course Outline

Text: Intermediate Algebra $3^{\text {rd }}$ edition, Schaum’s Outlines. Ray Steege, Kelly Bailey. ISBN 978-1-260-12074-5

Description: MTH 034 serves two purposes: to assist and ensure that the homework in a co-requisite MTH 122 course is being done in a timely and accurate manner; and to ensure that the foundational skills of intermediate algebra are fully mastered. It is expected that half of each class will be devoted to each. This syllabus pertains to the intermediate algebra portion of the course.

| Lesson | Description | Assignment Supplementary Problems |
| :---: | :---: | :---: |
| 1 | Linear and Literal Equations (Sections 4.1-4.3) <br> Use of TI 83/84 Plus | $\begin{aligned} & \text { p129: } 4.2 \mathrm{a}, \mathrm{c}, \mathrm{e}, \mathrm{~g}, \mathrm{i}, \\ & \mathrm{k} \\ & \text { p130: } 4.7 \mathrm{a}, \mathrm{c}, \mathrm{e}, \mathrm{~g} \\ & \text { Handout \#1 } \end{aligned}$ |
| 2 | 8.4 Linear Equation Forms <br> Lines: slope, point-slope, and slopeintercept form | $\begin{aligned} & \text { p129: } 4.3 \mathrm{c}, \mathrm{e}, \mathrm{f} \\ & \text { p130: } 4.4 \mathrm{a}, \mathrm{~b}, \mathrm{~d}, \mathrm{e} \\ & \text { p283: } 8.8 \mathrm{a}, \mathrm{~b}, \mathrm{c} \\ & \text { p284: } 8.10 \mathrm{~b}, \mathrm{c} \\ & \text { p284: } 8.13 \mathrm{a}, \mathrm{c} \end{aligned}$ |
| 3 | Lines: slope, parallel <br> Microsoft Excel Basics | $\begin{aligned} & \text { P284: } 8.9 \mathrm{a}, \mathrm{~b} \\ & \text { P284: } 8.14 \mathrm{a}, \mathrm{~b} \\ & \text { Handout \#2 } \end{aligned}$ |
| 4 | 7.1 Linear System in 2 Variables | $\begin{aligned} & \text { P252: } 7.1 \mathrm{a}, \mathrm{~b} \\ & \text { P252: } 7.2 \mathrm{a}, \mathrm{c}, \mathrm{e} \end{aligned}$ |
| 5 | 5.1 Exponents (integer powers) 5.2 Scientific notation | P167: 5.1 e, f, g, h <br> P168: 5.2 c, e, g, i, j <br> P168: 5.3 a, c, e P168: <br> 5.4 a, c, d, f P168: 5.5 <br> a, b, c |
| 6 | 5.3 Rational Exponents and Roots 5.4 Radical notation | $\begin{aligned} & \text { P168: } 5.7 \mathrm{~b}, \mathrm{~d}, \mathrm{f} \\ & \text { P168: } 5.8 \mathrm{a}, \mathrm{c}, \mathrm{e}, \mathrm{~g}, \mathrm{i} \end{aligned}$ |
|  |  | $\begin{aligned} & \text { P169: } 5.9 \text { a,c,e } \\ & \text { P169: } 5.10 \text { b,d,f,g,h } \end{aligned}$ |
|  |  | $\begin{aligned} & \text { P169: } 5.11 \text { b,d,f,h, i } \\ & \text { P169: } 5.12 \text { b,d,f } \end{aligned}$ |


| Lesson | Description | Assignment |
| :---: | :---: | :---: |
| 7 | Functions | $\begin{aligned} & \text { P283: } 8.2 \mathrm{a}, \mathrm{c} \\ & \text { P283: } 8.3 \mathrm{a}-\mathrm{f} \\ & \text { P283: } 8.4 \mathrm{a}, \mathrm{c}, \mathrm{~d}, \mathrm{f} \end{aligned}$ |
| 8 | Polynomials (Chapter 2) | P68: 2.1 a, b, c, d, e |
|  | 2.1 Definitions | P68: $2.3 \mathrm{a}, \mathrm{c}$, e |
|  | 2.1 Factoring | P69: $2.12 \mathrm{a}, \mathrm{c}, \mathrm{e}, \mathrm{f}$ |
| 9 | 5.6 Complex numbers: addition, subtraction and multiplication, division | P169: 5.16 d-r |
| 10 | 6.1 Solving by Factoring and Square Root Methods <br> 6.2 Completing the Square and the Quadratic Formula <br> Quadratic expression, the quadratic equation | $\begin{aligned} & \text { P210: } 6.1 \mathrm{a}, \mathrm{c}, \mathrm{e}, \mathrm{~g} \\ & \text { P211: } 6.2 \mathrm{a}, \mathrm{c}, \mathrm{e} \\ & \text { P211: } 6.3 \mathrm{a}, \mathrm{~b} \\ & \text { P211: } 6.4 \mathrm{a}, \mathrm{~b} \\ & \text { P211: } 6.5 \mathrm{~b}, \mathrm{c} \end{aligned}$ |
| 11 | 6.6 Graphing quadratic equations | $\begin{aligned} & \text { P212: } 6.11 \mathrm{a}, \mathrm{~d}, \mathrm{e}, \mathrm{f} \\ & \text { P212: } 6.12 \mathrm{a}-\mathrm{c} \\ & \text { P212: } 6.13 \mathrm{a}, \mathrm{c}, \mathrm{~d}, \mathrm{e} \end{aligned}$ |
| 12 | Exponential and Logarithmic Functions | $\begin{aligned} & \text { P312: } 9.1 \mathrm{a}, \mathrm{~b}, \mathrm{c} \\ & \text { P312: } 9.3 \mathrm{c} \mathrm{~d} \\ & \text { P312: } 9.4 \mathrm{c}, \mathrm{~d} \\ & \text { P312: } 9.10 \mathrm{a}, \mathrm{c}, \mathrm{e} \\ & \text { P312: } 9.11 \mathrm{a}, \mathrm{c}, \mathrm{e} \end{aligned}$ |
| 13 | Applications of Exponential and | P313: 9.14 |
|  | Logarithmic Functions | P313: 9.20,9.21,9.23, 9.26 |
|  |  | P313: 9.27 |
| 14 | Practice for MTH 122 final exam |  |

