## Math 142 Spring 2020 Calendar

Below is a rough schedule for the course. Some or all of the practice problems listed below may be assigned as homework at your instructor's discretion. Regardless, you should work through them all to help you master the material.

|  | Week | Sections / Events | Practice Problems |
| :---: | :---: | :---: | :---: |
| 1 | 1/22-1/24 | Classes begin - Wed. 1/22 <br> 7.1 - Integration by Substitution | $\begin{aligned} & \text { (7.1) } 9,19,29,33,39,59,61, \\ & 65,151,160,161 \end{aligned}$ |
| 2 | 1/27-1/31 | 7.2 - Integration by Parts <br> 7.4-Algebraic Identities and Trig Substitutions | $\begin{aligned} & \text { (7.2) } 7,11,17,27,31,39,41, \\ & 43,45,47,85,86 \\ &(7.4) 3,7,10,14,15,19,21,31,33, \\ & 35,45,52,55,61,67,70,75 \\ & \hline \end{aligned}$ |
| 3 | 2/3-2/7 | 7.4 (cont.) |  |
| 4 | 2/10-2/14 | Drop deadline (no W on transcript) - Wed. 2/12 <br> 7.5 - Numerical Methods for Definite Integrals <br> 7.6 - Improper Integrals | $\begin{aligned} & \text { (7.5) } 7,11,13,22,24,29,31 \\ & \text { (7.6) } 9,11,15,17,19,21, \\ & \quad 25,35,39 \end{aligned}$ |
| 5 | 2/17-2/21 | 7.7-Comparison of Improper Integrals <br> 8.1 - Areas and Volumes | $\begin{aligned} & \text { (7.7) } 3,5,7,9,10,11,21,22, \\ & 25,29,31,37 \\ &(8.1) 1,3,7,11,15,17,29,39 \\ & \hline \end{aligned}$ |
| 6 | 2/24-2/28 | Exam 1 - Tues. Feb. 25, 6:30-8 PM, room TBA <br> 8.2 - Applications to Geometry <br> 8.3 - Area and Length in Polar Coordinates | $\begin{aligned} & \text { (8.2) } 1,3,13,17,23,29,31, \\ & 33,35,37,51 \\ & \text { (8.3) } 1,3,5,7,11,13,15,25, \\ & 27,29,33,37 \end{aligned}$ |
| 7 | 3/2-3/6 | Drop deadline (W on transcript) - Wed. 3/5 <br> 8.4 - Density and Center of Mass <br> 8.5-Applications to Physics | $\begin{aligned} & \text { (8.4) } 3,5 \mathrm{~b}, 9,17,24,27,31 \\ & (8.5) 13,19,21,23,41,44 \end{aligned}$ |
| Spring Break, 3/9-3/13 |  |  |  |
| Cancelled due to COVID-19 |  |  |  |
| 8 | 3/23-3/27 | 8.7-Distribution Functions <br> 8.8 - Probability, Mean, and Median <br> 9.1 - Sequences <br> 9.2-Geometric Series | $\begin{aligned} & \hline(8.7) 12,21 \mathrm{abc}, 23,27,37 \\ & (8.8) 4,5,6,7 \mathrm{abc}, 12,17 \\ & (9.1) 5,11,15,20,23,25,65 \\ & (9.2) 1,3,5,13,15,19,23,25 \\ & \quad 29,35,64,65 \end{aligned}$ |
| 9 | 3/30-4/3 | Exam 2 - Tues. March 31, 6:30-8 PM, via Sakai <br> 9.3-Convergence of Series <br> 9.4 - Tests for Convergence | $\begin{gathered} \hline(9.3) 3,7,11,17,27,31,49,50 \\ \text { (9.4) } 11,13,17,21,25,29,41 \\ 46,75,79,81,87,89,123 \\ \hline \end{gathered}$ |
| 10 | 4/6-4/10 | 9.4 (cont.) <br> 9.5 - Power Series and Interval of Convergence | $\begin{aligned} & \text { (9.5) } 7,9,15,21,23,25,30 \\ & 37,41,43 \end{aligned}$ |
| 11 | 4/13-4/17 | 9.5 (cont.) <br> 10.1 - Taylor Polynomials <br> 10.2 - Taylor Series | $\begin{gathered} \hline(10.1) 3,5,13,21,39,45 \\ (10.2) 1,2,7,13,15,21,23, \\ 29,31,47,49,61,65 \\ \hline \end{gathered}$ |
| 12 | 4/20-4/24 | Exam 3 - Tues. April 21, 6:30-8 PM, room TBA 10.2 (cont.) <br> 10.3 - Finding and Using Taylor Series <br> 10.4 - Error in Taylor Polynomial Approximations | $\begin{aligned} & \text { (10.3) } 5,9,15,25,27,35,41, \\ & 61,63 \\ & (10.4) 1,8,17,19,20 \end{aligned}$ |
| 13 | 4/27-4/28 | Classes end - Tues. 4/28 10.5 - Fourier Series | (10.5) 5, 11, 15 |

