## Math 575 Fall 2018 Calendar

| Date |  | Reading | Topic | Unit | Homework Due | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22-Aug | W | 1B, 1C | Number Systems | Real and Complex Numbers |  | First Day of Classes |
| 24-Aug | F | 1C | The Real Line |  |  |  |
| 27-Aug | M | 2A, 2B | Real Numbers |  |  |  |
| 29-Aug | W | 2D | Complex Numbers |  | \#0: p. 9: 1,14; p. 12: 1,2 |  |
| 31-Aug | F | 3A | Sequences | Real and Complex Sequences |  |  |
| 3-Sep | M | Labor Day |  |  |  |  |
| 5-Sep | W | 3B | Upper and lower limits |  | \#1: p. 14: 1; p. 20,:4,5; p. 28: 5,7 |  |
| 7-Sep | F | 3 C | The Cauchy criterion |  |  |  |
| 10-Sep | M | 3D | Algebraic properties of limits |  | \#2: pp. 32-33: 1, 7,10, 16 |  |
| 12-Sep | W | 3E | Subsequences |  |  | Last Day to Drop |
| 14-Sep | F | 3 F | The extended reals and convergence to $\pm \infty$ |  |  |  |
| 17-Sep | M | 4A | Convergence and absolute convergence | Series | \#3 p. 37, 1, p. 38, 3; p. 40, 1 |  |
| 19-Sep | W | 4B | Tests for absolute convergence |  |  |  |
| 21-Sep | F | 4C | Conditional convergence |  |  |  |
| 24-Sep | M | 5A | Power series | Power Series | \#4 p. 48, 1; pp. 53-54, 19, 24 |  |
| 26-Sep | W | 5B | Differentiation of power series |  |  |  |
| 28-Sep | F | 5C | Products and the exponential function |  |  |  |
| 1-Oct | M |  | Review |  | \# 5 p. 63, probs. 3, 9; p. 66, prob. 1 |  |


| 3-Oct | W |  | First Exam on 1B-1C, 2A2B, 2D , 3A-F, 4A-C, 5A-B |  |  |  |
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| 5-Oct | F | 6A | Metrics | Metric spaces |  |  |
| 8-Oct | M | 6B | Interior points, limit points, open and closed sets |  | \#6 p. 74, problems 1,3 | Midterm Grade Window Opens |
| 10-Oct | W | 6C | Coverings and compactness |  |  |  |
| 12-Oct | F | 6C | Coverings and compactness continued |  |  |  |
| 15-Oct | M | 6D | Sequences, compactness, sequential compactness |  | \#7 p. 78, 2; p. 81, 1, 2 | Midterm |
| 17-Oct | W | 6D | Compactness continued |  |  |  |
| 19-Oct | F | 7A | Continuous functions | Continuous functions | \#8 p. 83, 7, 12 |  |
| 22-Oct | M | 7A | Continuous functions, continued |  |  |  |
| 24-Oct | W | 7B | Real- and complex-valued functions |  | \#9 p. 89, 1, 3, 4, 6 |  |
| 26-Oct | F | 7B | Real and complex-valued functions |  |  |  |
| 29-Oct | M | 7C | The space C(I) |  |  |  |
| 31-Oct | W | 7D | The Weierstrass approximation theorem |  | \#10 p. 91, 1, 3; p. 94, 1, 2, 6 |  |
| 2-Nov | F |  | Review and catch-up |  |  |  |
| 5-Nov | M |  | Review and catch-up | Calculus |  |  |
| 7-Nov | W |  | Review and Catch-Up |  |  |  |
| 9-Nov | F | 8A | Midterm Exam II on 6A6D, 7A-7D |  |  |  |
| 12-Nov | M | 8A | Differential Calculus |  |  |  |
| 14-Nov | W | 8B | Differential Calculus |  |  |  |


| 16-Nov | F | 8C | Differential Calculus |  |  |  |
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| 19-Nov | M | 8C | Integral calculus |  | \#11: $\mathbf{p . 1 0 4 , \mathbf { 1 b } , \mathbf { 2 , 3 } , \mathbf { 5 } , \mathbf { 6 }}$ |  |
| 21-Nov | W |  | Thanksgiving |  |  |  |
| 23-Nov | F |  | Thanksgiving |  |  |  |
| 26-Nov | M | 8D | Integral Calculus |  | \#12: $\mathbf{p . 1 0 7 , 1 ;} \mathbf{p . 1 1 2 , 1 ( a )}$ |  |
| 28-Nov | W | 8D | Riemann sums |  |  |  |
| 30-Nov | F | 8E | Riemann sums |  |  |  |
| 3-Dec | M |  | Taylor's Theorem |  |  |  |
| 5-Dec | W |  | Review and Catch-up |  |  | Last Day of <br> Classes |
| 7-Dec | F |  | Review and Catch-up |  |  |  |

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12-Dec W Final Exam, 1:00-3:00
PM
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