

Mathematics 8 – Term Syllabus

Winter 2007 – based on Stewart 5^e

| Day Number | Date of Lecture | Reading in Text - Brief Description |
|------------|-----------------|---|
| 1 | 1/5 | 8.1: Review Substitution and Integration by Parts |
| | 1/6 | (Scheduled Saturday Class) No Class Today |
| 2 | 1/8 | 8.2 (up to boxed formula on p. 523): Trigonometric Integrals |
| 3 | 1/9 (x-hour) | 8.3: Trigonometric Substitutions |
| 4 | 1/10 | 8.8 (through Example 4, p. 569): Improper Integrals |
| 5 | 1/12 | 12.1: Sequences |
| | 1/15 | Dr. Martin Luther King Jr. Day: No Class Today |
| 6 | 1/16 (x-hour) | 12.2: Series |
| 7 | 1/17 | 12.3, 12.4- : Series, Integral Test |
| 8 | 1/19 | 12.4, 12.5: Comparison Tests, Alternating Series |
| 9 | 1/22 | 12.5, 12.6 (up to middle p. 780) Alternating Series, Ratio Test |
| 10 | 1/24 | 12.8: Power Series |
| 11 | 1/26 | 12.9: Functions as Power Series |
| 12 | 1/29 | 12.10: Taylor and MacLaurin Series |
| | 1/29 | EXAM First midterm exam, 5:00 - 7:00 pm, location TBA |
| 13 | 1/31 | 12.10 (skip multiplication and division of power series): Taylor and MacLaurin Series |
| 14 | 2/2 | 13.1, 13.2: Three Dimension Coordinates and Vectors |
| 15 | 2/5 | 13.3: Dot Products |
| 16 | 2/6 (x-hour) | 13.4: Cross Products |
| 17 | 2/7 | 13.5: Equations of Lines and Planes |

| Day Number | Date of Lecture | Reading in Text - Brief Description |
|------------|------------------|---|
| | 2/9 | Winter Carnival Holiday: No Class Today |
| 18 | 2/12 | 14.1 (up to bottom p. 888), 14.2 (up to Integrals, p. 896): Vector Functions, Space Curves; Derivatives of Vector Functions |
| 19 | 2/14 | 14.3 (up to curvature, p. 900), 14.4 (through middle p. 910): Arc Length; Motion in Space |
| 20 | 2/16 | 15.1, 15.2: Functions of Several Variables; Limits and Continuity |
| 21 | 2/19 | 15.3 (up to partial differential equations, p. 953): Partial Derivatives |
| | 2/19 | EXAM Second midterm exam, 5:00 - 7:00 pm, location TBA |
| 22 | 2/21 | 15.4: Tangent Planes and Linear Approximations |
| 23 | 2/23 | 15.5 (up to implicit differentiation, p. 972): The Chain Rule |
| 24 | 2/26 | 15.6: The Directional Derivative and Gradient |
| 25 | 2/28 | 15.6: The Directional Derivative and Gradient |
| 26 | 3/2 | 15.7: Maxima and Minima |
| 27 | 3/5 | 15.7: Maxima and Minima |
| 28 | 3/7 (Last Class) | |
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