# Math 0230 Schedule and Practice Problems

Website references below are to the website accompanying our text:
[http://www.stewartcalculus.com/media/6_inside_topics.php](http://www.stewartcalculus.com/media/6_inside_topics.php). The website is used for supplementary topics that are not included in the print version of the textbook.

**January 10: Integration by Substitution**
ed 1: 5.5 Number 1-54 odd
ed 2: 5.5 Number 1-56 odd

**January 12: Integration by Parts**
ed 1: 6.1 Number 1-28 odd
ed 2: 6.1 Number 1-30 odd

**January 14: Trigonometric integrals and substitution**
ed 1: 6.2 Number 1-33 odd, 41-57 odd
ed 2: 6.2 Number 1-33 odd, 43-59 odd

**January 19: Partial fractions**
ed 1: 6.3 Number 1-39 odd
ed 2: 6.3 Number 1-39 odd

**January 21: Partial fractions (cont)**

**January 24: Improper integrals**
ed 1: 6.6 Number 5-31 odd, 41, 43, 45
ed 2: 6.6 Number 5-31 odd, 41, 43, 45

**January 26: Areas between curves**
ed 1: 7.1 Number 1-15 odd, 16
ed 2: 7.1 Number 1-19 odd, 18

**January 28: Volumes**
ed 1: 7.2 Number 1-11 odd, 21, 27
ed 2: 7.2 Number 1-11 odd, 27, 33

**January 31: Volumes by cylindrical shells**
ed 1: 7.3 Number 5, 6, 9, 18, 19, 20, 21, 23
ed 2: 7.3 Number 5, 6, 9, 10, 11, 12, 17, 19, 33, 34

**February 2: Arc Length**
ed 1: 7.4 Number 2, 3, 5, 6, 10
ed 2: 7.4 Number 2, 7, 10, 15, 17

**February 4: Applications to physics and engineering (work, force)**
ed 1: 7.5 Number 1, 3, 5, 7, 9, 12, 13, 15, 17, 18, 23, 25, 27, 30
ed 2: 7.6 Number 1, 3, 5, 7, 9, 12, 13, 15, 17, 18, 27, 28, 31, 34

**February 7: Differential equations**
ed 1: 7.6 Number 1-15 odd, 21-29
ed 2: 7.7 Number 1-15 odd, 21-29

**February 9: Applications of Differential equations**
ed 1: 7.6 Number 35, 37, 39, 43, 45, 46
ed 2: 7.7 Number 35, 37, 39, 43, 45, 46

**February 11: Linear differential equations**
Website: Linear Differential Equations Number 1-20

**February 14: Review**

**February 16: Exam I**

**February 18: Homogeneous second order differential equations**
Website: Second Order Linear Differential Equations Number 1-24

**February 21: Inhomogeneous second order equations by undetermined coefficients**
Website: Nonhomogeneous Linear Equations Number 1-22 (undetermined cooefficients method only)

**February 23: Oscillations**
Website: Applications of Second Order Differential Equations Number 1-10

**February 25: Sequences**
ed1: 8.1 Number 3-36
ed2: 8.1 Number 3-40

**February 28: Series**
ed 1: 8.2 Number 3-29, 33, 34
ed 2: 8.2 Number 3-28, 31-34, 35-37, 43, 44

**March 2: The integral and comparison tests**
ed 1: 8.3 Number 2-27
ed 2: 8.3 Number 2-31

**March 4: Other convergence tests**
ed 1: 8.4 Number 1-18, 19-37 odd
ed 2: 8.4 Number 1-18, 19-39 odd

**March 14: Other convergence tests**
ed1: 8.4 Number 1-18, 19-37 odd
ed2: 8.4 Number 1-18, 19-39 odd

**March 16: Power series**
ed 1: 8.5 Number 3-20
ed 2: 8.5 Number 3-24

**March 18: Representing functions as power series**
ed 1: 8.6 Number 1-30
ed 2: 8.6 Number 1-32

**March 21: Representing functions as power series (cont)**

**March 23: Taylor and Maclaurin series**
ed 1: 8.7 Number 1-34, 37-64
ed 2: 8.7 Number 1-34, 37-64

**March 25: Taylor and Maclaurin series (cont)**

**March 28: Applicatons of Taylor polynomials**
(No Remainder, No physics)
Find T_n(x) and graph it against f(x)
ed 1: 8.8 Number 3,5,7, 9-15 parts (a) and (c)
ed 2: 8.8 Number 3,5,7, 9-15 parts (a) and (c)

**March 30 : Review**

**April 1: Exam II**

**April 4: Parametric curves**
ed 1: 9.1 Number 1, 3, 5, 7, 9, 10, 13, 15, 16, 17, 18, 22, 31
ed 2: 9.1 Number 1, 3, 5, 7, 9, 10, 13, 15, 16, 17, 18, 22, 31

**April 6: Calculus with parametric curves**
ed 1: 9.2 Number 1-15 odd, 24, 25, 28, 30, 35, 37, 40
ed 2: 9.2 Number 1-15 odd, 24, 25, 28, 30, 35, 37, 38

**April 8: Polar coordinates**
ed 1: 9.3 Number 1-6, 7, 9, 10, 11, 13-20, 23-29 odd, 46, 47, 51-54
ed 2: 9.3 Number 1-6, 7, 9, 10, 11, 13-20, 23-33 odd, 46, 47, 51-54

**April 11: Areas and length in polar coordinates**
ed 1: 9.4 Number 1-13, 15-25 odd
ed 2: 9.4 Number 1-13, 15-25 odd

**April 13: Areas and length in polar coordinates**
ed 1: 9.4 Number 29-38
ed 2: 9.4 Number 29-38

**April 15: Functions of Several Variables**
ed 1: 11.1 Number 1-11 odd, 13-35, 41-50
ed 2: 11.1 Number 1-11 odd, 13-35, 41-50

**April 18: Partial Derivatives**
ed 1: 11.3 Number 1-60
ed 2: 11.3 Number 1-60

**April 20: Review**
**April 22: Review**

**TBA:**
Final Exam (all sections)