# MATH 0240 Schedule and Practice Problems

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**January 9: Vectors**
ed1: 10.2 Number 2, 5-29
ed2: 10.2 Number 2, 5-30, 33-37

**January 11: The Dot Product**
ed1: 10.3 Number 3-8, 12-34
ed2: 10.3 Number 2-10, 14-39

**January 13: The Cross Product**
ed1: 10.4 Number 1-9, 13-16, 21-37
ed2: 10.4 Number 1-9, 13, 17-20, 25-41

**January 18: Equations of Lines and Planes**
ed1: 10.5 Number 1-41, 45-50
ed2: 10.5 Number 1-43, 47-52

**January 20: Cylinders and Quadratic Surfaces**
ed1: 10.6 Number 3-8, 11-30
ed2: 10.6 Number 3-8, 11-30

**January 23: Vector Functions and Space Curves**
ed1: 10.7 Number 3-22, 33-52
ed2: 10.7 Number 3-22, 33-52

**January 25: Arc Length and Curvature**
ed1: 10.8 Number 1-4, 7-8, 11-19, 21-25, 33-38
ed2: 10.8 Number 1-4, 9-10, 13-21, 23-27, 37-40

**January 27: Motion in Space: Velocity and Acceleration**
ed1: 10.9 Number 1-25
ed2: 10.9 Number 1-25

**January 30: Kepler's Laws (no binormal vectors)**
ed1: 10.9 Number 1-25
ed2: 10.9 Number 1-25

**February 1: Functions of Several Variables**
ed1: 11.1 Number 1-11 odd, 13-35, 41-50
ed2: 11.1 Number 1-11 odd, 13-35, 41-50

**February 3: Partial Derivatives**
ed1: 11.3 Number 1-60
ed2: 11.3 Number 1-64

**February 6: Tangent Planes and Linearization**
ed1: 11.4 Number 1-6, 11-32
ed2: 11.4 Number 1-6, 11-34

**February 8: Chain Rule**
ed1: 11.5 Number 1-30
ed2: 11.5 Number 1-30

**February 10: Directional Derivative and the Gradient Vector**
ed1: 11.6 Number 1-34
ed2: 11.6 Number 1-36

**February 13: Maximum and Minimum Values**
ed1: 11.7 Number 1-28
ed2: 11.7 Number 1-28

**February 15: Lagrange Multipliers**
ed1: 11.8 Number 1-17, 25-37 odd, 38-40
ed2: 11.8 Number 1-19, 29-39 odd, 42-44

**February 17: Review**

**February 20: Exam 1**

**February 22: Double Integrals Over Rectangles**
ed1: 12.1 Number 7-34
ed2: 12.1 Number 7-26, 29-35

**February 24: Double Integrals Over General Regions**
ed1: 12.2 Number 1-28, 37-42
ed2: 12.2 Number 1-12, 15-32, 43-48

**February 27: Double Integrals in Polar Coordinates**
ed1: 12.3 Number 1-26
ed2: 12.3 Number 1-26

**March 1: Applications of Double Integrals**
ed1: 12.4 Number 1-14
ed2: 12.4 Number 1-16

**March 3: Triple Integrals**
ed1: 12.5 Number 1-20, 23-40
ed2: 12.5 Number 1-20, 23-42

**March 13: Triple Integrals in Cylindrical Coordinates**
ed1: 12.6 Number 1-23, 25-28
ed2: 12.6 Number 1-25, 28-30

**March 15: Triple Integrals in Spherical Coordinates**
ed1: 12.7 Number 1-27, 35-36
ed2: 12.7 Number 1-27, 37-39

**March 17: Change of Variables in Multiple Integrals**
ed1: 12.8 Number 1-22
ed2: 12.8 Number 1-10, 15-21, 23-26

**March 20: Vector Fields**
ed1: 13.1 Number 1-32
ed2: 13.1 Number 1-32

**March 22: Line Integrals**
ed1: 13.2 Number 1-24, 33-37
ed2: 13.2 Number 1-22, 37-40, 43

**March 24: Fundamental Theorem of Line Integrals**
ed1: 13.3 Number 1-22
ed2: 13.3 Number 1-22

**March 27: Green's Theorem**
ed1: 13.4 Number 1-21
ed2: 13.4 Number 1-21

**March 29: Green's Theorem (cont)**

**March 31: Review**

**April 3: Exam 2**

**April 5: Curl and Divergence**
ed1: 13.5 Number 1-30
ed2: 13.5 Number 1-30

**April 7: Parametric Surfaces and Their Areas**
ed1: 13.6 Number 1-4, 15-22, 29-44
ed2: 13.6 Number 1-4, 15-22, 29-44, 46

**April 10: Surface Integrals**
ed1: 13.7 Number 1-27
ed2: 13.7 Number 1-31

**April 12: Stokes' Theorem**
ed1: 13.8 Number 1-15
ed2: 13.8 Number 1-17

**April 14: Stoke's Theorem (cont)**

**April 17: Divergence Theorem**
ed1: 13.9 Number 1-30
ed2: 13.9 Number 1-30

**April 19: Divergence Theorem (cont)**

**April 21: Review**

**April 28**
Final Exam (all day sections)
8:00-9:50 AM Room: TBA