

Math 0240 Schedule and Practice Problems

August 27: Vectors

ed1: 10.2 Number 2, 5-29

ed2: 10.2 Number 2, 5-30, 33-37

August 30: The Dot Product

ed1: 10.3 Number 3-8, 12-34

ed2: 10.3 Number 2-10, 14-39

September 1: The Cross Product

ed1: 10.4 Number 1-9, 13-16, 21-37

ed2: 10.4 Number 1-9, 13, 17-20, 25-41

September 3: Equations of Lines and Planes

ed1: 10.5 Number 1-41, 45-50

ed2: 10.5 Number 1-43, 47-52

September 8: Cylinders and Quadric Surfaces

ed1: 10.6 Number 3-8, 11-30

ed2: 10.6 Number 3-8, 11-30

September 10: Vector Functions and Space Curves

ed1: 10.7 Number 3-22, 33-52

ed2: 10.7 Number 3-22, 33-52

September 13: 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

September 15: Motion in Space: Velocity and Acceleration

ed1: 10.9 Number 1-25

ed2: 10.9 Number 1-25

September 17: Kepler's Laws (no binormal vectors)

ed1: 10.9 Number 1-25

ed2: 10.9 Number 1-25

September 20: 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

September 22: Partial derivatives

ed1: 11.3 Number 1-60

ed2: 11.3 Number 1-64

September 24: Tangent planes and linearization

ed1: 11.4 Number 1-6, 11-32

ed2: 11.4 Number 1-6, 11-34

September 27: Chain rule

ed1: 11.5 Number 1-30

ed2: 11.5 Number 1-30

September 29: Directional derivative and the gradient vector

ed1: 11.6 Number 1-34

ed2: 11.6 Number 1-36

October 1: Maximum and minimum values

ed1: 11.7 Number 1-28

ed2: 11.7 Number 1-28

October 4: Lagrange multipliers

ed1: 11.8 Number 1-17, 25-37 odd, 38-40

ed2: 11.8 Number 1-19, 29-39 odd, 42-44

October 6: Review

October 8: Exam 1

October 11: Double integrals over rectangles

ed1: 12.1 Number 7-34

ed2: 12.1 Number 7-26, 29-35

October 13: Double integrals over general regions

ed1: 12.2 Number 1-28, 37-42

ed2: 12.2 Number 1-12, 15-32, 43-48

October 18: Double integrals in polar coordinates

ed1: 12.3 Number 1-26

ed2: 12.3 Number 1-26

October 20: Applications of double integrals

ed1: 12.4 Number 1-14

ed2: 12.4 Number 1-16

October 22: Triple integrals

ed1: 12.5 Number 1-20, 23-40

ed2: 12.5 Number 1-20, 23-42

October 25: Triple integrals in cylindrical coordinates

ed1: 12.6 Number 1-23, 25-28

ed2: 12.6 Number 1-25, 28-30

October 27: Triple integrals in spherical coordinates

ed1: 12.7 Number 1-27, 35-36

ed2: 12.7 Number 1-27, 37-39

October 29: Change of variables in multiple integrals

ed1: 12.8 Number 1-22

ed2: 12.8 Number 1-10, 15-21, 23-26

November 1: Vector fields

ed1: 13.1 Number 1-32

ed2: 13.1 Number 1-32

November 3: Line integrals

ed1: 13.2 Number 1-24, 33-37

ed2: 13.2 Number 1-22, 37-40, 43

November 5: Fundamental Theorem of Line Integrals

ed1: 13.3 Number 1-22

ed2: 13.3 Number 1-22

November 8: Green's Theorem

ed1: 13.4 Number 1-21

ed2: 13.4 Number 1-21

November 10: Green's Theorem (cont)**November 12: Review****November 15: Exam 2****November 17: Curl and divergence**

ed1: 13.5 Number 1-30

ed2: 13.5 Number 1-30

November 19: 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

November 29: Surface integrals

ed1: 13.7 Number 1-27

ed2: 13.7 Number 1-31

December 1: Stokes' Theorem

ed1: 13.8 Number 1-15

ed2: 13.8 Number 1-17

December 3: Stokes' Theorem (cont.)**December 6: Divergence Theorem**

ed1: 13.9 Number 1-30

ed2: 13.9 Number 1-30

December 8: Divergence Theorem (cont.)**December 10: Review**

TBA:
Final Exam (all day sections)