

# Math 0220 Schedule and Practice Problems

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Below is the schedule of topics and associated textbook sections accompanied by highly recommended practice problems from, *Essential Calculus, Early Transcendentals*, 2nd Edition (ed 2) by James Stewart for MATH 0220: Analytic Geometry and Calculus 1. Relevant problems from the 1st Edition (ed 1) of the text are also listed for your convenience. Exam dates are indicated on the schedule, including the departmental final exam given to all students enrolled in daytime sections.

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## **August 26: Review of Functions and Trigonometry**

ed 1: Appendix A, 1.1, 1.2

ed 2: Appendix A, 1.1, 1.2

## **August 28: Limits**

ed 1: 1.3 Number 1-8, 11, 13, 16, 19, 20

ed 2: 1.3 Number 1-8, 11, 13, 16, 19, 20

## **August 30: Calculating Limits**

ed 1: 1.4 Number 1-24, 28, 29, 31-37, 43-48

ed 2: 1.4 Number 1-28, 32, 33, 35-38, 41-43

## **September 4: Continuity**

ed 1: 1.5 Number 3-7, 13-16, 23, 24, 29-33, 35-42

ed 2: 1.5 Number 3-9, 15-18, 25, 26, 31-35, 37, 39-44

## **September 6: Limits Involving Infinity**

ed 1: 1.6 Number 1-5, 9, 10, 13-31, 38, 39, 43, 45

ed 2: 1.6 Number 1-5, 9, 10, 13-33, 40, 41, 47, 49

## **September 9: Derivatives and Rates**

ed 1: 2.1 Number 1-20, 23-37, 41-43

ed 2: 2.1 Number 1-22, 25-30, 43-45

## **September 11: Derivative as a Function**

ed1: 2.2 Number 1-12, 17-23, 27-31, 33, 39, 40

ed2: 2.2 Number 1-12, 19-25, 33-37, 41, 45, 46

**September 13: Derivative Formulas**

ed 1: 2.3 Number 1-26, 29-44, 49-52

ed 2: 2.3 Number 1-28, 31-46, 51-54

**September 16: Products and Quotients**

ed 1: 2.4 Number 1-30, 33-36, 41-44, 46, 51, 52

ed 2: 2.4 Number 1-30, 33-36, 41-44, 46, 47, 48

**September 18: Chain Rule**

ed 1: 2.5 Number 1-40, 43-50, 57, 58

ed 2: 2.5 Number 1-48, 51, 53-56, 63

**September 20: Implicit Differentiation**

ed 1: 2.6 Number 1-26, 31, 39

ed 2: 2.6 Number 1-28, 33, 43

**September 23: Related Rates**

ed 1: 2.7 Number 1-38

ed 2: 2.7 Number 1-31, 33-42

**September 25: Linear Approximation**

ed 1: 2.8 Number 1-24

ed 2: 2.8 Number 1-24

**September 27: Exponentials, Logs and Inverses**

ed 1: 3.1 Number 7-18, 23-30

ed 1: 3.2 Number 3-26, 31-38, 43-54, 59-66, 69-74

ed 2: 3.1 Number 7-18, 23-30

ed 2: 3.2 Number 3-26, 31-34, 43-54, 59-60, 63-68, 71-76

**September 30: Derivatives of Logs and Exponentials**

ed 1: 3.3 Number 1-42, 45-58

ed 2: 3.3 Number 1-46, 51-64

**October 2: Derivatives of Logs and Exponentials (cont)****October 4: Review****October 7: Exam 1**

**October 9: Inverse Trigonometric Functions**

ed 1: 3.5 Number 1-10, 16-38

ed 2: 3.5 Number 1-10, 16-38

**October 11: Hyperbolic Functions**

ed 1: 3.6 Number 1-19, 26-41

ed 2: 3.6 Number 1-19, 26-41

**October 16: L'Hopital's Rule**

ed 1: 3.7 Number 1-36, 46

ed 2: 3.7 Number 1-38, 50

**October 18: Extrema**

ed 1: 4.1 Number 3-10, 15-48, 64

ed 2: 4.1 Number 3-10, 15-48

**October 21: Mean Value Theorem**

ed 1: 4.2 Number 5, 15, 17, 18, 23, 27, 29

ed 2: 4.2 Number 5, 15, 19, 20, 23, 27, 29

**October 23: Shape of Graphs**

ed 1: 4.3 Number 1-10, 13-17, 21-42

ed 2: 4.3 Number 1-12, 15-19, 23-44

**October 25: Curve Sketching**

ed 1: 4.4 Number 1-44

ed 2: 4.4 Number 1-44

**October 28: Optimization**

ed 1: 4.5 Number 7-17, 23, 46, 48

ed 2: 4.5 Number 9-19, 22, 23, 28, 54, 56

**October 30: Newton's Method**

ed 1: 4.6 Number 1, 2, 4-7, 9-12

ed 2: 4.6 Number 1, 2, 4, 6-8, 11-14

**November 1: Antiderivatives**

ed 1: 4.7 Number 1-20, 31-37, 46

ed 2: 4.7 Number 1-26, 37-43, 52

**November 4: Area and Distance**

ed 1: 5.1 Number 1-5, 7-9, 11, 12

ed 2: 5.1 Number 1-5, 9-11, 13, 14

**November 6: Definite Integral**

ed 1: 5.2 Number 1-4, 7, 9-14, 29-36, 45-47

ed 2: 5.2 Number 1-4, 7, 9-14, 29-36, 47-49

**November 8: Evaluating Integrals**

ed 1: 5.3 Number 1-32, 45-62

ed 2: 5.3 Number 1-36, 49-66

**November 11: Fundamental Theorem of Calculus**

ed 1: 5.4 Number 1-18, 25-28

ed 2: 5.4 Number 1-18, 25-28

**November 13: Review**

**November 15: Exam 2**

**November 18: Substitution**

ed 1: 5.5 Number 1-50

ed 2: 5.5 Number 1-52

**November 20: Substitution (cont)**

ed 1: 5.5 Number 1-50

ed 2: 5.5 Number 1-52

**November 22: Integration by Parts**

ed 1: 6.1 Number 1-28

ed 2: 6.1 Number 1-30

**December 2: Trigonometric Integrals**

ed 1: 6.2 Number 1-34

ed 2: 6.2 Number 1-34

**December 4: Trigonometric Substitutions**

ed 1: 6.2 Number 37-62

ed 2: 6.2 Number 35-64

**December 6: Review**

**December 9: Review**

**Departmental Final Exam: Thursday, December 12 from 8:00 - 9:50 am**

Daytime sections only. Section locations will be scheduled at a later date by the Registrar's Office.