

MATH 0220

Analytic Geometry and Calculus 1

Lecture Schedule and Practice Problems — Fall 2026

Below is the schedule of lecture topics and associated textbook sections, accompanied by recommended practice problems from *Essential Calculus: Early Transcendentals*, 2nd ed. (ed 2) by James Stewart. Relevant problem numbers from the 1st edition (ed 1) are also listed. **Exam dates** are highlighted; the departmental final exam date and location will be announced by the registrar.

Date	Topic	Practice Problems
Mon, Aug 24	Review of Functions and Trigonometry	ed 1 & 2: Appendix A; §1.1, §1.2
Wed, Aug 26	Limits	ed 1 & 2: §1.3 #1–8, 11, 13, 16, 19, 20
Fri, Aug 28	Calculating Limits	ed 1: §1.4 #1–24, 28, 29, 31–37, 43–48 ed 2: §1.4 #1–28, 32, 33, 35–38, 41–43
Mon, Aug 31	Continuity	ed 1: §1.5 #3–7, 13–16, 23, 24, 29–33, 35–42 ed 2: §1.5 #3–9, 15–18, 25, 26, 31–35, 37, 39–44
Wed, Sep 2	Limits Involving Infinity	ed 1: §1.6 #1–5, 9, 10, 13–31, 38, 39, 43, 45 ed 2: §1.6 #1–5, 9, 10, 13–33, 40, 41, 47, 49
Fri, Sep 4	Derivatives and Rates of Change	ed 1: §2.1 #1–20, 23–37, 41–43 ed 2: §2.1 #1–22, 25–30, 43–45
Mon, Sep 7	<i>No class</i> — Labor Day	
Wed, Sep 9	The Derivative as a Function	ed 1: §2.2 #1–12, 17–23, 27–31, 33, 39, 40 ed 2: §2.2 #1–12, 19–25, 33–37, 41, 45, 46
Fri, Sep 11	Derivative Formulas	ed 1: §2.3 #1–26, 29–44, 49–52 ed 2: §2.3 #1–28, 31–46, 51–54
Mon, Sep 14	Products and Quotients	ed 1: §2.4 #1–30, 33–36, 41–44, 46, 51, 52 ed 2: §2.4 #1–30, 33–36, 41–44, 46–48
Wed, Sep 16	The Chain Rule	ed 1: §2.5 #1–40, 43–50, 57, 58 ed 2: §2.5 #1–48, 51, 53–56, 63
Fri, Sep 18	Implicit Differentiation	ed 1: §2.6 #1–26, 31, 39 ed 2: §2.6 #1–28, 33, 43
Mon, Sep 21	Related Rates	ed 1: §2.7 #1–38 ed 2: §2.7 #1–31, 33–42
Wed, Sep 23	Linear Approximation and Differentials	ed 1 & 2: §2.8 #1–24

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Date	Topic	Practice Problems
Fri, Sep 25	Exponentials, Logarithms, and Inverses	ed 1: §3.1 #7–18, 23–30; §3.2 #3–26, 31–38, 43–54, 59–66, 69–74 ed 2: §3.1 #7–18, 23–30; §3.2 #3–26, 31–34, 43–54, 59–60, 63–68, 71–76
Mon, Sep 28	Derivatives of Logarithmic and Exponential Functions	ed 1: §3.3 #1–42, 45–58 ed 2: §3.3 #1–46, 51–64
Wed, Sep 30	Derivatives of Log. & Exp. Functions (cont.)	—
Fri, Oct 2	Review — Chapters 1, 2, & 3	—
Mon, Oct 5	Midterm Exam 1	<i>Covers Chapters 1, 2, & 3</i>
Wed, Oct 7	Inverse Trigonometric Functions	ed 1 & 2: §3.5 #1–10, 16–38
Fri, Oct 9	<i>No class — Fall Break</i>	
Mon, Oct 12	Hyperbolic Functions	ed 1 & 2: §3.6 #1–19, 26–41
Wed, Oct 14	L'Hôpital's Rule	ed 1: §3.7 #1–36, 46 ed 2: §3.7 #1–38, 50
Fri, Oct 16	Maximum and Minimum Values	ed 1: §4.1 #3–10, 15–48, 64 ed 2: §4.1 #3–10, 15–48
Mon, Oct 19	The Mean Value Theorem	ed 1: §4.2 #5, 15, 17, 18, 23, 27, 29 ed 2: §4.2 #5, 15, 19, 20, 23, 27, 29
Wed, Oct 21	Derivatives and the Shape of Graphs	ed 1: §4.3 #1–10, 13–17, 21–42 ed 2: §4.3 #1–12, 15–19, 23–44
Fri, Oct 23	Curve Sketching	ed 1 & 2: §4.4 #1–44
Mon, Oct 26	Optimization Problems	ed 1: §4.5 #7–17, 23, 46, 48 ed 2: §4.5 #9–19, 22, 23, 28, 54, 56
Wed, Oct 28	Newton's Method	ed 1: §4.6 #1, 2, 4–7, 9–12 ed 2: §4.6 #1, 2, 4, 6–8, 11–14
Fri, Oct 30	Antiderivatives	ed 1: §4.7 #1–20, 31–37, 46 ed 2: §4.7 #1–26, 37–43, 52
Mon, Nov 2	Areas and Distances	ed 1: §5.1 #1–5, 7–9, 11, 12 ed 2: §5.1 #1–5, 9–11, 13, 14
Wed, Nov 4	The Definite Integral	ed 1: §5.2 #1–4, 7, 9–14, 29–36, 45–47 ed 2: §5.2 #1–4, 7, 9–14, 29–36, 47–49
Fri, Nov 6	Evaluating Definite Integrals	ed 1: §5.3 #1–32, 45–62 ed 2: §5.3 #1–36, 49–66
Mon, Nov 9	The Fundamental Theorem of Calculus	ed 1 & 2: §5.4 #1–18, 25–28
Wed, Nov 11	Review — Chapters 4 & 5	—

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Date	Topic	Practice Problems
Fri, Nov 13	Midterm Exam 2	<i>Covers Chapters 4 & 5</i>
Mon, Nov 16	The Substitution Rule	ed 1: §5.5 #1–50 ed 2: §5.5 #1–52
Wed, Nov 18	The Substitution Rule (cont.)	—
Fri, Nov 20	Integration by Parts	ed 1: §6.1 #1–28 ed 2: §6.1 #1–30
Mon, Nov 23	<i>No class</i> — Thanksgiv- ing Recess	
Wed, Nov 25	<i>No class</i> — Thanksgiv- ing Recess	
Fri, Nov 27	<i>No class</i> — Thanksgiv- ing Recess	
Mon, Nov 30	Integration by Parts (cont.)	—
Wed, Dec 2	Trigonometric Integrals, Trig. Substitution	ed 1 & 2: §6.2 #1–34
Fri, Dec 4	Review	<i>Last day of undergraduate day classes.</i>
Dec 7–11	Departmental Final Exam	<i>Comprehensive. Date, time, and location TBD by the registrar.</i>