

**MATH 2924, Differential and Integral Calculus II**

**Suggested Week-by-Week Plan**

Sections refer to Calculus (7/e) by Stewart

Abbreviation Key:

L=Lecture (faculty)

D=Discussion/examples (faculty or GA)

Q=Questions & Answers (GA)

E=Exam

Week	Lect/Disc/Exam/ Q & A	Sect.	Topic
1	L	5.2	Volumes
	D		Examples
	L	5.2	Volumes (cont)
	Q		Q & A
2	L	5.3	Volumes by cylindrical shells
	L	5.3	Volumes by cylindrical shells (cont)
	D		Examples
	L	5.4	Work
3	Q		Q & A
	L	5.5	Average value of a function
	L	6.1	Inverse functions
	D		Examples
4	L	6.2*	The natural logarithmic function
	Q		Q & A
	L	6.2*	The natural logarithmic function (cont)
	L	6.3*	The natural exponential
5	D		Examples
	L	6.4*	General logarithmic and exponential functions
	Q		Q & A
	L		Review and catch-up
6	L	6.5	Exponential growth and decay
	E		Hour Exam 1 (5.2-5.5, 6.1, 6.2*-6.4*)
	L	6.6	Inverse trig functions
	Q		Q & A
7	L	6.8	Indeterminate forms and l'Hospital's rule
	L	6.8	Indeterminate forms and l'Hospital's rule (cont)
	D		Examples
	L	7.1	Integration by parts
8	Q		Q & A
	L	7.1, 7.2	Integration by parts (cont)/Trig integrals
	L	7.2	Trigonometric integrals (cont)
	D		Examples
9	L	7.3	Trigonometric substitutions
	Q		Q & A
	L	7.3	Trigonometric substitutions (cont)
	L	7.4	Partial fractions
10	D		Examples
	L	7.4	Partial fractions (cont)
	Q		Q & A

	L		Review and catch-up
9	L	7.8	Improper integrals
	E		Hour Exam 2 (6.5-6.6, 6.8, 7.1-7.4)
	L	7.8	Improper integrals (cont)
	D		Examples (integration by calculator)
	L	8.1	Arc length
10	L	10.1	Curves defined by parametric equations
	D		Examples
	L	10.2	Calculus with parametric curves
	Q		Q & A
	L	10.3	Polar coordinates
11	L	10.3	Polar coordinates (cont)
	D		Examples
	L	10.4	Areas and lengths in polar coordinates
	Q		Q & A
	L	11.1	Sequences
12	L	11.2	Series
	D		Examples
	L	11.2	Series (cont)
	Q		Q & A
	L	11.3	The integral test
13	L	11.3,11.4	The integral test/Comparison tests
	D		Examples
	L	11.4	The comparison tests (cont)
	Q		Q & A
	L		Review and catch-up
14	L	11.5, 11.6	Alternating series/Absolute convergence
	E		Hour Exam 3 (7.8, 8.1, 10.1-10.4, 11.1-11.4)
	L	11.6	Absolute convergence; root and ratio tests
	Q		Q & A
	L	11.8	Power Series
15	L	11.9	Representation of functions as power series
	D		Examples
	L	11.10	Taylor and Maclaurin series
	Q		Q & A
	L		Review and catch-up