

# Professor & Assessments.

## 1. Professor

1) Jason. Shiefken.

## 2. Assessments.

1) Pre-Calculus quiz (1%)

2) Pre-Class quiz. (7%)

① 52/70 will be counted in

② do it after watching pre-class videos.

③ On Quercus

3) Tutorial Worksheets (16%)

① 17/23 will be counted in.

② as group work each week.

③ On Gradescope.

4) Problem sets. (15%)

① 6/8

② On Gradescope. (39%)

5) Term Test

① 2022.10.21 ; 4:10 → 6:00 p.m. }

② 2022.12.2 ; 4:10 → 6:00 p.m. }

③ 2023.2.10 ; 4:10 → 6:00 p.m. }

④ 2023.3.24 ; 4:10 → 6:00 p.m. }

3/4.

6) Final Exam. (30%).

① counted into the grade.:

2) Time Conflict: announce 1 week earlier

3)

Week	Starts	Notes	Tutorial Due R	Day 1	Day 2	Day 3	Problem Set (due R)	Test
13	Jan 9	Starts on M	12– Graphing	Sums and sigmas (7.1, 7.2)	Suprema and infima (7.3, 7.4)	The definition of integral (7.5-7.6)		
14	Jan 16		13– Antiderivatives	Examples and Properties of integrals (7.7,7.8,7.11)	Integral as limits (7.9-7.10)	Antiderivatives. Indefinite integrals (8.1, 8.2)		
15	Jan 23		14 – Areas	FTC Part 1 (8.3, 8.4)	FTC Part 2 (8.5, 8.6, 8.7)	Integration by substitution (9.1,9.2,9.3)	PS5	
16	Jan 30		15 – Integration methods	Integration by parts (9.4,9.5,9.6)	Integration of trig fcn's (9.7,9.8,9.9)	Integration of rational fcn's (9.10,9.11,9.12)		
17	Feb 6		16 – Integration methods	Volumes (10.1)	Volumes (10.2)	Sequences (11.1, 11.2)		Test 3 (F)
18	Feb 13		17- Applications	Properties of sequences (11.3, 11.4)	Theorems about sequences (11.5, 11.6)	Big theorem (11.7, 11.8)	PS6	
Feb 20								
READING WEEK								
19	Feb 27		18- Sequences	Improper integrals (12.1-12.6)	BCT (12.7, 12.8)	LCT (12.9, 12.10)		
20	Mar 6		19 – Improper Integrals	Def series (13.1-13.4)	Properties of series (13.5-13.7)	Properties of series (13.8, 13.9)		
21	Mar 13		20– Series	Integrals and comparison tests (13.10-13.12)	Alternating series (13.13, 13.14)	Types of convergence (13.15,13.16, 13.17)	PS7	
22	Mar 20		21 – Convergence tests	Ratio test (13.18, 13.19)	Power series (14.1, 14.2)	Taylor polynomials (14.3, 14.4)		Test 4 (F)
23	Mar 27		22– Power series	Taylor series (14.5, 14.6)	Analytic functions (14.7, 14.8)	New power series (14.9, 14.10)		
24	Apr 3	Ends on R	23 - Power series	Applications (14.12,14.14)	Applications (14.11, 14.13, 14.15)	Outroduction	PS8	

Week	Starts	Notes	Tutorial (Due R)	Day 1	Day 2	Day 3	Problem Set (due R)	Test
0	Sep 5	Starts on R	---	---	---	Intro		
1	Sep 12		---	Sets (1.1-1.3)	Quantifiers (1.4-1.6)	Conditionals (1.7-1.9)		
2	Sep 19		1 – Logic	Defs and proofs (1.10-1.13)	Proofs and induction (1.14-1.15)	Absolute values and inequalities (2.4)		
3	Sep 26		2 – Fix proofs	Intuitive idea of limit (2.1-2.3)	Formal def of limit (2.5-2.6)	Proofs from def (2.7-2.8; supp 2.9)		PS1
4	Oct 3		3 – Def of limit	Limit laws (2.10-2.11)	Squeeze theorem and more proofs (2.12-2.13)	Continuity (2.14-2.15)		
5	Oct 10	Miss M	4. Continuity		More continuity (2.16-2.17; supp 2.18)	Limit computations (2.19-2.20)		
6	Oct 17		5 – Computation of limits	IVT and EVT (2.21-2.22)	Def of derivative (3.1, 3.2, 3.3)	Differentiation rules (3.4, 3.5, 3.8)		Test 1 (F)
7	Oct 24		6 – Linear approximation, IVT and EVT	Proof of differentiation rules (3.6, 3.7, 3.9)	Chain rule (3.10-1.11)	Trig derivatives and implicit differentiation (3.12, 3.13)		PS2
8	Oct 31		7 – Computation of derivatives	Inverse functions (4.1, 4.2)	Inverse functions (4.3, 4.4)	Exponential and Logarithms (4.5-4.11)		
Nov 7 READING WEEK								
9	Nov 14		8 – Inverse trig functions	Inverse trig functions (4.12, 4.13, 4.14)	Local extrema (5.1, 5.2, 5.3, 5.4)	Rolle's Theorem (5.5, 5.6)		
10	Nov 21		9-MVT	MVT (5.7, 5.8, 5.9)	Monotonicity (5.10, 5.11, 5.12)	Related Rates (6.1, 6.2)		PS3
11	Nov 28		10 – Related Rates and Applied optimization	Applied optimization (6.2, 6.4)	Indeterminate forms. LHR (6.6-9)	L'Hopital (6.10-6.12)		Test 2 (F)
12	Dec 5	Ends on W R is make-up M	11 – L'Hopital	Concavity (6.13, 6.14)	Asymptotes (6.15-6.18)	Curve sketching (-)		PS4