

## COURSE OUTLINE FOR MATH 103A

Instructor: Nick Marsden, Ewing 258

Text: Logic and Proof

Second Edition

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### A. FROM NOTES

#	Time	
1	2	Rational and Irrational Numbers
2	2	Cardinality ASSIGNMENT 1
3	2	Standard Limits ASSIGNMENT 2
4	2	Limits at Infinity, Infinite Limits, One-sided Limits ASSIGNMENT 3

### B. FROM TEXT

#	Text	Time	
5	1.1,2	1	Introduction to Set Theory
6	1.3-5	2	Logic: Simple Connectives
7	1.6,7	1	Quantified Sentences
8	1.8	1	Tautologies ASSIGNMENT 4
9	1.9	2	Simple Valid Arguments
10	1.11	1	Negations ASSIGNMENT 5
11	2.3	1	$P \rightarrow Q$ Proofs
12	2.4	1	$P \leftrightarrow Q$ Proofs
13	2.5	1	For any $x$ , $P(x)$ Proofs
		1	MIDTERM, Lessons 1 to 13

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14	2.6	1	Proof by Cases
15	2.7	2	Induction ASSIGNMENT 6
16	2.8	1	Proof by Contradiction
17	3.1	3	Basic Set Properties
18	3.2	2	More Set Properties ASSIGNMENT 7

### C. FROM NOTES

#	Time	
19	1	Sequences
20	3	Theorems on Convergence of Functions, including Sequences
21	1	Continuity ASSIGNMENT 8

Review: 3 hours

Final exam, Lessons 1 to 21

## EVALUATION PROCEDURES FOR MATH 103

### COURSE MARK

Assignments: 25% (marks off for late assignments)  
Midterm: 25%  
Final: 50%

### LETTER GRADE

Your course mark is then translated to a letter grade using the following table:

A+ 95%	B+ 80%	C+ 65%
A 90%	B 75%	C 60%
A- 85%	B- 70%	D 50%

I reserve the right to lower one or more of these figures if I judge that your midterm and/or your final exam were more difficult than in previous years.

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