MTH 119
IK, MT

THE COLLEGE OF STATEN ISLAND, CUNY
DEPARTMENT OF MATHEMATICS

MATH 119
COURSE OUTLINE

Text: Three freely available (OER) textbooks will be used, denoted below by A, L, SB:

- (A) College Algebra 2e by Jay Abramson
  https://openstax.org/details/books/college-algebra-2e
- (L) Business Precalculus by David Lippman
  https://www.opentextbookstore.com/busprecalc/busprecalc.pdf
- (SB) Applied Finite Mathematics by Sekhon and Bloom
  https://math.libretexts.org/Bookshelves/Applied_Mathematics/Applied_Finite_Mathematics_(Sekhon_and_Bloom)

Calculator: A graphing calculator is required. TI-84 is highly recommended.

Note: Below, each lesson corresponds to a one-hour class. Homework problems must be submitted online using WeBWorK.

Lesson	Text	Section	Topic	Homework
1	A	1.2-1.3	Exponents and Radicals	
2	A	1.3	Radicals and Rational Exponents	
3	A	1.4	Polynomials (Operations on Polynomials)	
4	A	1.5	Factoring Polynomials	
5	A	1.6	Rational Expressions	
6	A	2.2	Linear Equations	
7	A	2.3	Models and Applications	
8	A	2.5	Quadratic Equations	
9	A	2.6	Other Types of Equations	
10			Review	
11			Review	
12			**Exam 1**	
13			**Exam 1**	
14	L	1.1	Functions and Function Notation	
15	L	1.2	Domain and Range	
16	L	1.3	Rates of Change	
17	L	1.3	Graphical Behavior of Functions	
18	L	1.4	Linear Functions	
19	L	1.5	Graphs of Linear Functions	
20	L	1.6	Modeling with Linear Functions	
21	L	1.7	Fitting Linear Models to Data	
22	L	2.1	Systems of Equations (Substitution Method)	

23	L	2.1	Systems of Equations (Elimination Method)	
24	L	3.1	Inequalities in One Variable	
25			Review	
26			Review	
27			**Exam 2**	
28			**Exam 2**	
29	L	4.1	Quadratic Functions	
30	L	4.1	Quadratic Functions (Min. and Max.)	
31	L	4.2	Polynomial Functions	
32	L	4.2	Polynomial Functions	
33	L	4.3	Rational Functions (Intercepts)	
34	L	4.3	Rational Functions (Asymptotes)	
35	L	5.1	Exponential Functions	
36	L	5.1	Compound Interest	
37	L	5.1	Exponential growth	
38	L	5.2	Logarithmic Functions	
39	L	5.2	Logarithm Properties	
40	L	5.3	Exponential and Logarithmic Models	
41			Review	
42			Review	
43			**Exam 3**	
44			**Exam 3**	
45	SB	6.1, 6.2	Simple and Compound Interest	
46	SB	6.3	Annuities and Sinking Funds	
47	SB	6.4	Present Value and Installment Payment	
48	SB	6.5	Finance Applications	
49	SB	6.5	Finance Applications	
50	SB	6.6	Classification of Finance Problems	
51	L	6.5	Multistage Finance Problems	
52			Review	
53			**Exam 4**	
54			**Exam 4**	
55			Final Review	
56			Final Review	