

THE COLLEGE OF STATEN ISLAND, CUNY
DEPARTMENT OF MATHEMATICS

MATH 121
COURSE OUTLINE

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

- (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_\(Sekhon_and_Bloom\)](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	L	1.1	Functions and Function Notation	
2	L	1.2	Domain and Range	
3	L	1.3	Rates of Change	
4	L	1.3	Graphical Behavior of Functions	
5	L	1.4	Linear Functions	
6	L	1.5	Graphs of Linear Functions	
7	L	1.6	Modeling with Linear Functions	
8	L	1.7	Fitting Linear Models to Data	
9	L	2.1	Systems of Equations (Substitution Method)	
10	L	2.1	Systems of Equations (Elimination Method)	
11	L	3.1	Inequalities in One Variable	
12			Review	
13			Review	
14			Exam 1	
15			Exam 1	
16	L	4.1	Quadratic Functions	
17	L	4.1	Quadratic Functions (Min. and Max.)	
18	L	4.2	Polynomial Functions	
19	L	4.2	Polynomial Functions	
20	L	4.3	Rational Functions (Intercepts)	
21	L	4.3	Rational Functions (Asymptotes)	
22	L	5.1	Exponential Functions	
23	L	5.1	Compound Interest	
24	L	5.1	Exponential growth	

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25	L	5.2	Logarithmic Functions	
26	L	5.2	Logarithm Properties	
27	L	5.3	Exponential and Logarithmic Models	
28			Review	
29			Review	
30			Exam 2	
31			Exam 2	
32	SB	6.1, 6.2	Simple and Compound Interest	
33	SB	6.3	Annuities and Sinking Funds	
34	SB	6.4	Present Value and Installment Payment	
35	SB	6.5	Finance Applications	
36	SB	6.5	Finance Applications	
37	SB	6.6	Classification of Finance Problems	
38	L	6.5	Multistage Finance Problems	
39			Review	
40			Exam 3	
41			Exam 3	
42			Final Review	
43			Final Review	