# THE COLLEGE OF STATEN ISLAND,CUNY 

 DEPARTMENT OF MATHEMATICS
## MATH 121 - Finite Mathematics

## COURSE OUTLINE

Text: Students should buy the custom textbook, Finite Math and Business Calculus with WebAssign. (This custom textbook for MTH 121-221 includes chapters 1-4 of Stewart, Redlin, Watson, Precalculus, 6th Edition, which is the part used in MTH 121).

Cengage Learning (2015). ISBN\# 9781305749627
Calculator: A graphing calculator is required. The TI-84 is highly recommended.
Note: Below, each lesson corresponds to a one-hour class. Homework problems must be submitted online using WebAssign.

| Lesson | Section | Topic | Homework Problems |
| :---: | :---: | :--- | :--- |
| 1 | 1.2 | Exponents and Radicals | $41,46,50,52,65,68,70,74,93,98$ |
| 2 | 1.3 | Algebraic Expressions | $21,50,71,79,94,121,125$ |
| 3 | 1.4 | Rational Expressions | $10,20,30,44,54,69,72,76,78,102$ |
| 4 | 1.5 | Solving Equations | $20,26,27,36,49,85,89,93,105,117$ |
| 5 | 1.5 | Solving Equations |  |
| 6 | 1.6 | Modeling with Equations | $21,28,37,41,51,53,62,69,73,88$ |
| 7 | 1.6 | Modeling with Equations | $22,23,25$ |
| 8 | 1.7 | Inequalities | $32,33,35,49,81,83,99,100,109117$ |
| 9 | 1.10 | Equations of Lines | $12,13,15,18,22,28$ |
| 10 | 1.10 | Parallel and Perpendicular Lines | $31,35,38,39,46$ |
| 11 | 1.10 | Slope as Rate of Change | $65,68,70,72,73,69$ |
| 12 |  | Review |  |
| 13 |  | Exam 1 |  |
| 14 |  | Exam 1 | $20,23,27,36,48,55,76,81,69,77$ |
| 15 | 2.1 | Functions | $13,17,20,24,28,34,49,51$ |
| 16 | 2.2 | Graphs of Functions | $53,57,61,69,70,83$ |
| 17 | 2.2 | Graphs of Functions | $9,13,15,17,20,23$ |
| 18 | 3.1 | Quadratic Functions | $27,28,29,30,47,48,49,50,59,62$ |
| 19 | 3.1 | Max/min Values of Quadratic Functions | $34,45,51,56,68$ |
| 20 | 3.2 | Polynomial Functions | $80,81,82$ |
| 21 | 3.2 | Polynomial Functions | $(p .220) 19,20,21,24,26,29$ |
| 22 | Focus | Modeling with Functions | $63,64,65,66,75,77$ |
| 23 | 3.1 | Modeling with Quadratic Functions | $12,13,16$ |
| 24 | 3.7 | Rational Functions | $28,30,32,48,56,64$ |
| 25 | 3.7 | Horizontal and Vertical Asymptotes |  |
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| 26 |  | Review |  |
| :---: | :---: | :---: | :---: |
| 27 |  | Exam 2 |  |
| 28 |  | Exam 2 |  |
| 29 | 4.1 | Exponential Functions | 20,21,28,30,42, 49, 51, 52 |
| 30 | 4.2 | Natural Exponential Function | 11,12,20,22,32,33,35 |
| 31 | 4.3 | Logarithmic Functions | 12,18,22,23,25,33,36,48,80,88,89 |
| 32 | 4.3 | Logarithmic Functions |  |
| 33 | 4.4 | Logarithmic Expressions | 13,30,32,34,40,41,43,49,52,59 |
| 34 | 4.5 | Exponential Equations | 19,21,23,25,29,31 |
| 35 | 4.5 | Logarithmic Equations | 46,49,54,55,76,77, 79 |
| 36 | 4.6 | Exponential Growth | 2,6,10,13,14,16 |
| 37 | 4.6 | Exponential Growth |  |
| 38 | 4.6 | Radioactive Decay | 18,22,23,24,26 |
| 39 |  | Review |  |
| 40 |  | Exam 3 |  |
| 41 |  | Exam 3 |  |
| 42 |  | Final Review |  |
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