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| Unit 1 – Transformations | Time Allowed- 9 Days |
| **Topics** | **Text**- Chapter 1 |  |
| Function Notation and Graphs of Functions  | Handout |  |
| Horizontal/Vertical Translations | Page 6 |  |
| Reflections | Page 16 |  |
| Stretches | Page 16 |  |
| Combined Transformations  | Page 32 |  |
| Inverses  | Page 44 |  |
| Review  | Page 56 |  |
| Unit Test |  |  |

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| Unit 2 – Radical & Rational Functions | Time Allowed - 13 Days |
| **Topics** | **Text**-Chap. 2,9,10 |  |
| Transformations of Radical Functions | Page 62 |  |
| Square root of a function | Page 78 |  |
| Graphing Radical Equations | Page 90 |  |
| Transformations of Rational Functions | Page 430 |  |
| Analyzing Rational Functions | Page 446 |  |
| Graphing Rational Equations | Page 457  |  |
| Addition/Subtraction of Functions | Page 474 |  |
| Multiplying/Dividing of Functions | Page 488 |  |
| Composite Functions | Page 499 |  |
| Review | Page 99, 468, 510 |  |
| Unit Test |  |  |

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| Unit 3 – Exponentials and Logarithms  | Time Allowed - 13 Days |
| **Topics** | **Text**- Chapter7,8 |  |
| Exponential Graphs | Page 334 |  |
| Transformations of Exponential Graphs | Page 346  |  |
| Exponential Equations | Page 358  |  |
| Logarithms | Page 372 |  |
| Graphing Logarithms | Page 383 |  |
| Laws of Logarithms | Page 392  |  |
| Logarithmic Equations | Page 404 |  |
| Exponential Equations | Page 404 |  |
| Applications | Handout |  |
| Review | Page 366, 416 |  |
| Unit Test |  |  |

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| Unit 4 – Polynomials | Time Allowed – 10 Days |
| **Topics** | **Text**- Chapter 3 |  |
| Polynomial Functions | Page 106 |  |
| Properties of Polynomial Graphs | Handout |  |
| Division of Polynomials (Long and Synthetic) | Handout |  |
| Remainder Theorem | Page 118 |  |
| Factor Theorem (Integral Zeroes) | Page 126 |  |
| Multiplicity of Roots  | Page 136 |  |
| Transformations of Polynomial Functions | Page 136 |  |
| Review | Page 153 |  |
| Exam |  |  |

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| Unit 5 – Trigonometry I (Equations) | Time Allowed – 9 Days |
| **Topics** | **Text**- Chapter 4 |  |
| Radian Measure | Page 166 |  |
| Arc Length | Page 166 |  |
| Unit Circle | Page 180 |  |
| Trig Ratios | Page 191 |  |
| First Degree Trig Equations | Page 206 |  |
| Second Degree Trig Equations  | Page 206 |  |
| Review | Page 215 |  |
| Exam |  |  |

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| Unit 6 – Trigonometry II (Graphs) | Time Allowed – 8 Days |
| **Topics** | **Text**- Chapter 5 |  |
| Graphing Sine and Cosine  | Page 222 |  |
| Period and Amplitude of Sine and Cosine | Page 238 |  |
| Phase Shift and Vertical Displacement | Page 238 |  |
| Graphing Tangent | Page 256 |  |
| Applications of Sinusoidal Functions | Page 256 |  |
| Review | Page 282 |  |
| Exam |  |  |

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| Unit 7 – Trigonometry III (Identities) | Time Allowed – 8 Days |
| **Topics** | **Text**- Chapter 6 |  |
| Reciprocal/Quotient/Pythagorean Identities  | Page 290 |  |
| Sum and Difference Identities | Page 299 |  |
| Double Angle Identities | Page 299 |  |
| Proving Identities | Page 309 |  |
| Solving Equations | Page 316 |  |
| Review | Page 322 |  |
| Exam |  |  |

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| Unit 8 – Permutations and Combinations | Time Allowed – 10 Days |
| **Topics** | **Text**- Chapter 11 |  |
| Fundamental Counting Principle | Page 516 |  |
| Factorial and Permutations | Handout |  |
| Permutations with Restrictions and Repetitions | Handout |  |
| Combinations Part 1 | Page 528 |  |
| Combinations Part 2 | Page 528 |  |
| Pascal’s Triangle and Pathways | Handout |  |
| Binomial Theorem | Page 537 |  |
| Review | Page 546 |  |
| Exam |  |  |

**Course Mark Breakdown**

**Final Exam: 50%**

**Quizzes and Assignments: 10%**

**Unit Exams: 40%**