



STARK STATE COLLEGE

GENERAL SYLLABUS

Course Information

Course Name: Industrial Mathematics
Course Number: MTH107

Required Materials

Textbook(s): Washington/Evans - Basic Technical Mathematics, 12/e
 ISBN (Instant Access): 9780137529834

Required Readings: None

Additional Materials: A scientific calculator is required. A graphing calculator is optional.

Course Outline/Calendar

The date of coverage and order of coverage may be modified based on the faculty member and events beyond the control of faculty members that interfere with class times and teaching.

16 Week Calendar

Week	Chapter/Topic/Lab
1	Ch.1: Basic Algebraic Operations 1.1: Numbers 1.2: Fundamental Operations of Algebra
2	1.3: Calculators and Approximate Numbers 1.4: Exponents and Unit Conversions
3	Ch.1: Basic Algebraic Operations 1.5: Scientific Notation 1.6: Roots and Radicals Test Chapter 1 (1.1-1.6)
4	Ch.1: Basic Algebraic Operations 1.7: Addition and Subtraction of Algebraic Expressions 1.8: Multiplication of Algebraic Expressions 1.9: Division of Algebraic Expressions
5	Ch.1: Basic Algebraic Operations 1.10: Solving Equations 1.11: Formulas and literal Equations 1.12: Applied Word Problems

Week	Chapter/Topic/Lab
6	Ch. 18: Variation 18.1: Ratio and Proportions 18.2: Variation Test chapter 1 & 18 (1.7-1.12, 18.1 & 18.2)
7	Ch. 2: Geometry 2.1: Lines and Angles 2.2: Triangles
8	2.3: Quadrilaterals 2.4: Circles
9	2.5: Measurement of Irregular Areas 2.6: Solid Geometric Figures Test chapter 2 (2.1-2.6)
10	Ch. 4: The Trigonometric Functions 4.1: Angles 4.2: defining the Trigonometric Functions
11	Ch. 4: The Trigonometric Functions 4.3: Values of the Trigonometric Functions 4.4: The Right Triangle 4.5: Applications of Right Triangles Test chapter 4 (4.1-4.5)
12	Ch. 9: Vectors and Oblique Triangles 9.1: Introduction to Vectors 9.2: Components of Vectors
13	Ch. 9: Vectors and Oblique Triangles 9.3: Vector Addition by Components 9.4: Applications of Vectors
14	9.5: Oblique Triangles and the Law of Sines 9.6: The Law of Cosines Test chapter 9 (9.1-9.6)
15	Review for the final exam Chapters: 1, 18, 2, 4 & 9
16	Final Test Chapters: 1, 18, 2, 4 & 9

8 Week Calendar

Week	Chapter/Topic/Lab
1	Ch.1: Basic Algebraic Operations 1.1: Numbers 1.2: Fundamental Operations of Algebra 1.3: Calculators and Approximate Numbers 1.4: Exponents and Unit Conversions
2	Ch.1: Basic Algebraic Operations 1.5: Scientific Notation 1.6: Roots and Radicals Test Chapter 1 (1.1-1.6) 1.7: Addition and Subtraction of Algebraic Expressions 1.8: Multiplication of Algebraic Expressions 1.9: Division of Algebraic Expressions
3	Ch.1: Basic Algebraic Operations 1.10: Solving Equations 1.11: Formulas and literal Equations 1.12: Applied Word Problems Ch. 18: Variation 18.1: Ratio and Proportions 18.2: Variation Test chapter 1 & 18 (1.7-1.12, 18.1 & 18.2)
4	Ch. 2: Geometry 2.1: Lines and Angles 2.2: Triangles 2.3: Quadrilaterals 2.4: Circles
5	2.5: Measurement of Irregular Areas 2.6: Solid Geometric Figures Test chapter 2 (2.1-2.6) Ch. 4: The Trigonometric Functions 4.1: Angles 4.2: defining the Trigonometric Functions
6	Ch. 4: The Trigonometric Functions 4.3: Values of the Trigonometric Functions 4.4: The Right Triangle 4.5: Applications of Right Triangles Test chapter 4 (4.1-4.5) Ch. 9: Vectors and Oblique Triangles 9.1: Introduction to Vectors 9.2: Components of Vectors
7	Ch. 9: Vectors and Oblique Triangles 9.3: Vector Addition by Components 9.4: Applications of Vectors 9.5: Oblique Triangles and the Law of Sines 9.6: The Law of Cosines Test chapter 9 (9.1-9.6)
8	Review for the final exam Chapters: 1, 18, 2, 4 & 9 Final Test Chapters: 1, 18, 2, 4 & 9

