

Seneca College of Applied Arts & Technology, York Gate Campus, Adult Academic Upgrading / College Preparatory Program  
 Mathematics Training Plan

ACE Technical Math. (MTH 092-11M) Student Name: \_\_\_\_\_ Start Date: \_\_\_\_\_

Entry Level Skills

Skills Demonstrated

Skills Learner Needs to Know

## POLYNOMIALS AND PROPERTIES OF EXPONENTS

(Chapter 4, Pages 245 to 266, 274 to 307)

Understanding & Use of:

- 4.1 Multiplying & Dividing Common Bases Page 246
- 4.2 More Properties of Exponents Page 255
- 4.3 Definitions of  $b^0$  &  $b^{-n}$  Page 260

- 4.5 Addition & Subtraction of Polynomials Page 274
- 4.6 Multiplication of Polynomials Page 283
- 4.7 Division of Polynomials Page 291

Self Assessment Page 305 Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Form E Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Proposed Polynomials and Properties of Exponents Demonstration Date: \_\_\_\_\_

Polynom. & Prop. of Exp. Demonstration Form: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Teacher: \_\_\_\_\_

## FACTORING POLYNOMIALS

(Chapter 5, Pages 309 to 324, 334 to 339 and 354 to 373)

Understanding & Use of:

- 5.1 GCF & Factoring by Grouping Page 310
- 5.3 Factoring Trinomial: Grouping Method Page 318

- 5.4 Fact Perfect Sq. Trin. & Diff. of Squares Page 334
- 5.7 Solv. Quad. Equat. Using Zero Prod. Rule Page 354

Self Assessment Page 372 Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Form E Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Proposed Factoring Polynomials Demonstration Date: \_\_\_\_\_

Factoring Polynomials Demonstration Form: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Teacher: \_\_\_\_\_

Entry Level Skills

Skills Demonstrated

Skills Learner Needs to Know

RATIONAL EXPRESSIONS  
(Chapter 6, Pages 375 to 404, 412 to 420)

Understanding & Use of:

- 6.1 Introduction to Rational Expressions Page 376
- 6.2 Mult. & Div. of Rational Expressions Page 385
- 6.3 Least Common Denominator Page 390

- 6.4 Add. & Subt. of Rational Expressions Page 397
- 6.6 Rational Equations Page 412

Self Assessment Page 439 Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Form E Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Proposed Rational Expressions Demonstration Date: \_\_\_\_\_

Rational Expressions Demonstration Form: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Teacher: \_\_\_\_\_

INTRODUCTION TO RELATIONS AND FUNCTIONS  
(Chapter 7, Pages 463 to 515)

Understanding & Use of:

- 7.3 Introduction to Relations Page 463
- 7.4 Introduction to Functions Page 471

- 7.5 Graphs of Basic Functions Page 483
- 7.6 Variation Page 495

Self Assessment Page 512 Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Form E Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Proposed Introduction To Relations And Functions Demonstration Date: \_\_\_\_\_

Intro. To Relations And Functions Demo. Form: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Teacher: \_\_\_\_\_

Entry Level Skills

Skills Demonstrated

Skills Learner Needs to Know

**RADICALS AND COMPLEX NUMBERS**

(Chapter 10, Pages 657 to 726)

Understanding & Use of:

- 10.1 Definition of an  $n$ th-Root Page 658
- 10.2 Rational Exponents Page 669
- 10.3 Properties of Radicals Page 675
- 10.4 Addition and Subtraction of Radicals Page 681

- 10.5 Multiplication of Radicals Page 686
- 10.6 Rationalization Page 693
- 10.7 Radical Equations Page 700
- 10.8 Complex Numbers Page 708

Self Assessment Page 723 Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Form E Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Proposed Radicals And Complex Numbers Demonstration Date: \_\_\_\_\_

Radicals And Complex Numbers Demo. Form: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Teacher: \_\_\_\_\_

**QUADRATIC FUNCTIONS**

(Chapter 11, Pages 727 to 749, 755 to 785)

Understanding & Use of:

- 11.1 Sq. Root Prop. & Complet. the Square Page 728
- 11.2 Quadratic Formula Page 736

- 11.4 Graphs of Quadratic Functions Page 755
- 11.5 Applications of Quadratic Functions Page 765

Self Assessment Page 781 Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Form E Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Proposed Quadratic Functions Demonstration Date: \_\_\_\_\_

Quadratic Functions Demonstration Form: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Teacher: \_\_\_\_\_

Entry Level Skills

Skills Demonstrated

Skills Learner Needs to Know

EXPONENTIAL AND LOGARITHMIC FUNCTIONS

(Chapter 12, Pages 787 to 870)

Understanding & Use of:

- 12.1 Algebra and Composition of Functions Page 788
- 12.2 Inverse Functions Page 794
- 12.3 Exponential Functions Page 803
- 12.4 Logarithmic Functions Page 812

- 12.5 Properties of Logarithms Page 824
- 12.6 The Irrational Number  $e$  Page 831
- 12.7 Exponential and Logarithmic Equations Page 842

Self Assessment Page 865 Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Form E Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Proposed Exponential And Logarithmic Functions Demonstration Date: \_\_\_\_\_

Expon. & Log. Functions Demonstration Form: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Teacher: \_\_\_\_\_

TRIGONOMETRY

(Chapters 16 & 17, Pages 515 to 573)

Understanding & Use of:

- 16.1 The Trigonometric Ratios Page 516
- 16.2 Values of the Trigonometric Ratios Page 523
- 16.3 Right Triangle Applications Page 530

- 17.1 Signs of the Trigonometric Functions Page 544
- 17.2 Val. of the Trig. Funct. of Any Angle Page 549
- 17.3 The Law of Sines Page 557
- 17.5 The Law of Cosines Page 564

Self Assess. Page 538/570 Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Form E Grade: \_\_\_\_\_ Date: \_\_\_\_\_

Proposed Trigonometry Demonstration Date: \_\_\_\_\_

Trigonometry Demonstration Form: \_\_\_\_\_ Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Teacher: \_\_\_\_\_

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Sequences, Series, Counting, And Probability (Chapters 14)	
Understanding & Use of: <input type="checkbox"/> 14.1 Sequences and Series Page 516	<input type="checkbox"/> 14.2 Arithmetic and Geometric Sequences and Series Page 523
Self Assess. Page _____ Grade: _____ Date: _____ Form E Grade: _____ Date: _____ Proposed Sequences, Series, Counting, And Probability Demonstration Date: _____ Sequences, Series, Counting, And Probability Demonstration Form: _____ Grade: _____ Date: _____ Teacher: _____	

Final Self Assessment Page 973 Grade: _____ Date: _____ Form E Grade: _____ Date: _____  Proposed Final Demonstration Date: _____  Final Demonstration Form: _____ Grade: _____ Date: _____ Teacher: _____
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**Calculation of Final Grade:**

<b>Chapter Demonstrations</b>	<b>Total</b>	_____		
	<b>Average</b>	_____	<b>Average X 0.70</b>	= _____
<b>Final Demonstration</b>		_____	<b>Final X 0.30</b>	= _____
<b>Total</b>				= _____

**Final Extended MTH 092 (ACE Tech. Math-11M.) Grade: \_\_\_\_\_ Date: \_\_\_\_\_ Teacher: \_\_\_\_\_**