

ORIGINAL COURSE IMPLEMENTATION DATE: REVISED COURSE IMPLEMENTATION DATE: COURSE TO BE REVIEWED (six years after UEC approval): September 2004 January 2023

June 2028

Course outline form version: 06/18/2021

OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: MATH 084			Number of Credits: 3 Course credit policy (105)			
Course Full Title: Introductory Algebra and Trigonometry						
Course Short Title: Intro. Algebra & Trigonometry						
Faculty: Faculty of Education, Community, and Human Development Dep			Departm	Department: Upgrading and University Preparation		
Calendar Description:						
Provides skills in algebraic manipulations to satisfy MATH 085 prerequisites.						
Note: This course can be used as a mathematics credit for the UUP Advanced Level certificate, the Provincial Adult Dogwood, or as preparation for some vocational, career, and technical programs.						
Prerequisites (or NONE):	One of the following: (MATH 072 or MATH 076), (Foundations of Mathematics and Pre- calculus 10 with a C or better), (Principles of Mathematics 11, Applications of Mathematics11, Foundations of Mathematics 11, or Pre-calculus 11 with a C- or better), or UUP department permission (assessment is required).					
Corequisites (if applicable, or NONE):	NONE					
Pre/corequisites (if applicable, or NONE):	NONE					
Antirequisite Courses (Cannot be taken for	additional cred	ional credit.) Course Details				
Former course code/number: NONE			Special	Special Topics course: No		
Cross-listed with: NONE			(If yes, the course will be offered under different letter designations representing different topics.)			
Equivalent course(s): NONE			Directed Study course: No			
(If offered in the previous five years, antirequisite course(s) will be			Grading System: Letter Grades			
for the antirequisite course(s) cannot take this	s course for fur	ther credit.)	Delivery Mode: May be offered in multiple delivery mode			
			- Expected frequency: Every semester			
Typical Structure of Instructional Hours			Maximu	m enrolment (for informati	on only): 24	
Lecture/seminar		60				
Tutorials/workshops		30	Prior Learning Assessment and Recognition (PLAR)			
			PLAR is	s available for this cours	е.	
			Transfe	er Credit (See <u>bctransfer</u>	guide.ca.)	
			Transfer credit already exists: No			
	Total hours	90	Submit	Submit outline for (re)articulation: No		
Labs to be scheduled independent of lecture hours: No Yes (If yes, fill in <u>transfer credit form</u> .))	
Department approval				Date of meeting:	November 2021	
Faculty Council approval				Date of meeting:	December 3, 2021	
Undergraduate Education Committee (UE	C) approval			Date of meeting:	June 17, 2022	

Learning Outcomes

Upon successful completion of this course, students will be able to:

- 1. Simplify, evaluate, and perform basic operations on polynomials, expressions involving powers with integral exponents, and rational and radical expressions.
- 2. Factor polynomials using various strategies, including the greatest common factor (GCF), special factoring, and factoring trinomials with leading coefficient equal to 1 as well as different than 1.
- 3. Solve linear, quadratic, and radical equations, systems of linear equations, and solve formulas for a given variable.
- 4. Graph linear, quadratic, and radical equations.
- 5. Determine characteristics of relations or functions such as domain, range, slope.
- 6. Solve and graph linear inequalities.
- 7. Use linear equations, inequalities, systems of linear equations, and formulas to solve various application problems, involving geometry problems.
- 8. Solve problems involving right triangles using the sine, cosine, or tangent ratios; the Pythagorean Theorem; special triangles; and the angle sum property of triangles.

After completion of MATH 084, students will meet the outcomes described in the Advanced Level – Developmental Mathematics in the 2021 – 2022 Adult Basic Education Articulation Guide available at https://www.bctransferguide.ca/search/abe.

Recommended Evaluation Methods and Weighting (Evaluation should align to learning outcomes.)							
Final exam:	30%	Quizzes/tests:	50%	Assignments:	20%		
	%		%		%		

Details:

NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.

Texts and Resource Materials (Include online resources and Indigenous knowledge sources. <u>Open Educational Resources</u> (OER) should be included whenever possible. If more space is required, use the <u>Supplemental Texts and Resource Materials form</u>.)

Туре	Author or description	Title and publication/access details	Year
1. Textbook	A.Tussy, R.Gustafson	Introductory Algebra & Trigonometry – Custom Edition; Nelson Education	2014
2.			

3. 4.

5.

Required Additional Supplies and Materials (Software, hardware, tools, specialized clothing, etc.)

Scientific calculator

Course Content and Topics

Module topics include:

- 1. Real Numbers
- 2. Geometry
- 3. Algebraic expressions, equations, and inequalities
- 4. Graphs, Linear Relations and Functions
- 5. Exponents and Polynomials
- 6. Factoring and Quadratic Equations
- 7. Rational Expressions
- 8. Systems of Equations
- 9. Roots and Radicals
- 10. Trigonometry