

MATHEMATICS 30-1

Mr. M Cherney

COURSE OUTLINE 2025-2026

Ch 0102 Transformations	10(10 1 st)-7 Classes-Lessons	10 School Days	Sept 1 – Sept 16
Ch 03 Polynomial Functions	8(11 FR)-4 Classes-Lessons	8(11) School Days	Sept 17 – Oct 2
Ch 0405 Basic & Trans Trig Equations	9-8 Classes-Lessons	9 School Days	Oct 3 – Oct 16
Ch 06 Identity Trig Equations	8-4 Classes-Lessons	8 School Days	Oct 17 – Oct 29
Ch 0708 Logarithms	9-7 Classes-Lessons	9 School Days	Oct 30 – Nov 13
Ch 0910 Rational/Operations	8-6 Classes-Lessons	8 School Days	Nov 14 – Nov 25
Ch 11 Permutations/Combinations	10-8 Classes-Lessons	10 School Days	Nov 26 – Dec 9
Course Review	13(14 TAL)-14 Classes-Lessons	13(14) School Days	Dec 10 – Jan 12
	75(58) Classes-Lessons	75(79) School Days	

Final

Diploma Exam

Jan 19, 2026

COURSE MARKING 2025-2026

Heading	Date	Weight	Points Earned (%)	Percent (%)
Course Work		70		
Tests		95		
Ch 0102 Transformations		15		
Ch 03 Polynomial Functions		15		
Ch 04 05 Basic & Trans Trig Equations		15		
Ch 06 Identity Trig Equations		10		
Ch 0708 Logarithms		20		
Ch 0910 Rational/Operations		10		
Ch 11 Permutations/Combinations		15		
Homework		5		
Final Exam		30		
Final Grade				

Daily Homework for each assignment is due the day after it is assigned, and at the latest the day of the test for that chapter. It will be marked for completeness, 1 mark for each completed question out of the total assigned questions. Each question number of your work is to be highlighted once (**not** abc parts) with a marker. Each assignment is to have your Name, Date, and Assignment Label and to be clearly marked as correct or incorrect (and corrected). Notes will be collected and marked at time of the tests.

Review Quizzes are given twice per chapter or when necessary as review. Each quiz will have about 5-10 questions.

Review Summary Sheets are given for each chapter and can be used as 'I Can' statements to self assess learning or as review sheets for content covered in the chapter.

Tests may be rewritten on a chapter which will be scheduled on the day before the next chapter test. Your best score up to 79% will be taken on rewrites.

Extra Help or a quiet place to work is available during any lunch hour in my room through out the year on a come and go as you need help basis.

Web Sites that may be of help

Exam bank: <http://alberta.exambank.com/>

Username: pal.hca

Password: feature

Pure math 30: <http://www.bmlc.ca/PureMath30.html>

Kahn Academy: <http://www.khanacademy.org/>

Google : doodling in math class (topic)

Quest A+: <https://questaplus.alberta.ca/>

Math 30-1: <http://www.math30.ca/index.php>

Mathematics 30–1 Formula Sheet

For $ax^2 + bx + c = 0$,

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Relations and Functions

Graphing Calculator Window Format

$$x: [x_{\min}, x_{\max}, x_{\text{scl}}]$$

$$y: [y_{\min}, y_{\max}, y_{\text{scl}}]$$

Laws of Logarithms

$$\log_b(M \times N) = \log_b M + \log_b N$$

$$\log_b\left(\frac{M}{N}\right) = \log_b M - \log_b N$$

$$\log_b(M^n) = n \log_b M$$

$$\log_b c = \frac{\log_a c}{\log_a b}$$

Growth/Decay Formula

$$y = ab^{\frac{x}{p}}$$

General Form of a Transformed Function

$$y = af[b(x - h)] + k$$

Permutations, Combinations, and the Binomial Theorem

$n! = n(n-1)(n-2)\dots 3 \times 2 \times 1$,
where $n \in N$ and $0! = 1$

$${}_n P_r = \frac{n!}{(n-r)!}$$

$${}_n C_r = \frac{n!}{(n-r)!r!} \quad {}_n C_r = \binom{n}{r}$$

In the expansion of $(x + y)^n$, written in descending powers of x , the general term is $t_{k+1} = {}_n C_k x^{n-k} y^k$.

Trigonometry

$$\theta = \frac{a}{r}$$

$$\tan \theta = \frac{\sin \theta}{\cos \theta} \quad \cot \theta = \frac{\cos \theta}{\sin \theta}$$

$$\csc \theta = \frac{1}{\sin \theta} \quad \sec \theta = \frac{1}{\cos \theta}$$

$$\cot \theta = \frac{1}{\tan \theta}$$

$$\sin^2 \theta + \cos^2 \theta = 1$$

$$1 + \tan^2 \theta = \sec^2 \theta$$

$$1 + \cot^2 \theta = \csc^2 \theta$$

$$\sin(\alpha + \beta) = \sin \alpha \cos \beta + \cos \alpha \sin \beta$$

$$\sin(\alpha - \beta) = \sin \alpha \cos \beta - \cos \alpha \sin \beta$$

$$\cos(\alpha + \beta) = \cos \alpha \cos \beta - \sin \alpha \sin \beta$$

$$\cos(\alpha - \beta) = \cos \alpha \cos \beta + \sin \alpha \sin \beta$$

$$\tan(\alpha + \beta) = \frac{\tan \alpha + \tan \beta}{1 - \tan \alpha \tan \beta}$$

$$\tan(\alpha - \beta) = \frac{\tan \alpha - \tan \beta}{1 + \tan \alpha \tan \beta}$$

$$\sin(2\alpha) = 2 \sin \alpha \cos \alpha$$

$$\cos(2\alpha) = \cos^2 \alpha - \sin^2 \alpha$$

$$\cos(2\alpha) = 2 \cos^2 \alpha - 1$$

$$\cos(2\alpha) = 1 - 2 \sin^2 \alpha$$

$$\tan(2\alpha) = \frac{2 \tan \alpha}{1 - \tan^2 \alpha}$$

$$y = a \sin[b(x - c)] + d$$

$$y = a \cos[b(x - c)] + d$$

