

Math 11 Academic (Fall Semester 2017)

Textbook: Foundations of Mathematics 11 - Nelson

** Supplementary materials will be supplied by the teacher for specific curriculum topics.

Student Evaluation: Student grades for this course will be assigned for the following:

(a) Quizzes	50 %
(b) Assignments	20 %
(c) Final Exam	<u>30 %</u>
Total	100 %

- The Math 11 course requires students to put forth a conscientious effort in quizzes, assignments, homework, etc. As the course material is covered at a rapid pace, students are encouraged to attend class on a regular basis, catch up on any missed materials as soon as he/she returns and review materials on a regular basis in order to keep up with covered topics.
- Students require a scientific calculator (not necessarily graphing)
- Assignments form an important part of the Math 11 course and they will be assigned to allow students adequate time for their completion. Students are to have completed assignments ready to be handed in at **the beginning** of the class period in which they are due. **Assignments are not to be completed during the class in which they are due.** Assignments not handed in on the due date will be reduced by 10 % per day. Once assignments are handed back to students no further assignments will be accepted and will receive a grade of zero.
- Students who are absent for family trips, sporting events outside of school teams, etc. will not be provided with “work packages” to complete. They will be expected to get all missed materials from classmates **upon their return.**
- In the event that a student is **excused absent** during the writing of a quiz, he/she will write it during the first class upon their return, in the school learning centre.
- In the event that a student is **unexcused absent** during the writing of a quiz, he/she **will not** be given the opportunity to write the quiz and receives a grade of zero for that quiz.

Please note: An unexcused absence is one in which parent notification is not provided. Some examples of unexcused absences are listed below:

- (i) In school but not in class (i.e. skipping class)
- (ii) Vacations taken outside of scheduled school holidays
- (iii) Participation in activities not authorized or organized by the school (ex: external sporting events).

- Extra help for students will be provided before and after school hours. Students are encouraged to seek help with curriculum areas of difficulty before new material is covered.

**** Students are reminded that extra help will not be available the day of a scheduled quiz or assignment due date.**

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SAERC – Fall Semester 2017 - Math 11 Curriculum Topics

(1) Solving Equations/Inequalities

- (i) Solving one variable equations
- (ii) Solving two variable equations
(elimination and substitution)
- (iii) Solving one variable inequalities
(set and number line solutions)
- (iv) Graphing linear functions
(general and slope intercept)
- (v) Graphing linear inequalities
(solution region)
- (vi) Graphing two variable inequalities
(feasible region)

(2) Rational Expressions/Radicals

- (i) Simplifying rat expressions
- (ii) Adding and subtracting rat expressions
- (iii) Multiplying and dividing rat expressions
- (iv) Solving rat expression equations
- (v) Whole and mixed radicals
- (vi) Simplifying radicals
- (vii) Operations using radicals
- (viii) Solving simple radical equations

(3) Function Notation

- (i) Function notation - $f(x)$
- (ii) Sum / Difference of functions
- (iii) Product and quotient of functions
- (iv) Composition of functions - $f(g(x))$

(4) Quadratic Functions

- (i) Parabolas / symmetry
- (ii) Max/Min values (vertex)
- (iii) General / Standard form
- (iv) Completing the square
- (v) Solving roots of quadratic
(Graphing, Factoring,
Completing the square, Quad formula)

(5) Properties of Angles/Triangles

- (i) Angle measures (degrees and radians)
- (ii) Positive and negative angles
- (iii) Angles and parallel lines
- (iv) Angles properties in triangles/polygons
- (v) Interior/Exterior angles
- (vi) Convex and concave polygons
- (vii) Solving missing angles using equations

(6) Acute/Obtuse/Right Triangle Trig

- (i) Sine, Cosine, Tangent Ratios
- (ii) Solving triangles using trig ratios (acute)
- (iii) Solving trig ratio equations
- (iv) Sine / Cosine Laws
- (v) Solving area using trig
- (vi) Solving triangles using trig ratios (obtuse)
- (vii) Ambiguous case using sine law

(7) Proportional Reasoning

- (i) Ratios and Rates
- (ii) Scale diagrams
- (iii) Scale factors and area (2D)
- (iv) Scale factors and volume (3D)

(8) Exploring Data

- (i) Frequency Tables
- (ii) Histograms
- (iii) Frequency Polygons
- (iv) Box and whisker plots
- (v) Standard Deviation
- (vi) Normal Distribution
- (vii) Z scores
- (viii) Confidence Intervals