

## Pre- Calculus Math 12 – ONLINE - Course Outline

Read this course outline before starting your course

### Course Overview

Course content is delivered entirely online while assignments are submitted on paper, or by digital delivery through an online “drop-box”. This course consists of 4 modules. Each module consists of 2 units. Each unit consists of a group of lessons. After each Unit is a send-in assignment that is submitted for marking and after each Module is a supervised test that must be written.

### Accessing Your Course

You will be sent an email containing a link giving direct access to your course, along with your logins and passwords. If you have problems logging in, contact the school.

### Course Evaluation

|              |                   |
|--------------|-------------------|
| Assignments  | 25% of final mark |
| Module Tests | 75% of final mark |
| Total Mark   | 100%              |

### Materials Required for the Course

Graphing Calculator, Grid Paper, Computer with Internet Access & Printer, Email Account

### Important \*\* Important \*\* Important

1. Email is one of the best ways to communicate with your teacher. If leaving a message by phone, be sure to leave a clear message with your name and phone number.
2. To book a test call the school and ask for the testing center. Our test supervisor will help you to arrange a time that works for you. If leaving a message on her answering machine, speak clearly and leave your full name and phone number.
3. Tests written prior to assignment submissions are held for marking until the assignments are received.
4. **There are no test rewrites and no assignment resubmissions.** Do not send in blank questions. Seek the help you need before your paper is marked, not after.
5. Self Marking Assignments. Each lesson has self-marking activities with answer keys provided. Checking your work, helps check your understanding as you proceed through the course. Do all practice work before attempting your send in assignments.
6. **Updates, Errors, and Omissions** - Check your teacher's website for any updates, errors, or omissions to your course materials before beginning. If you find a mistake that has not been identified, help others by reporting it to your teacher.

7. **Lost Assignments** - If an assignment is lost in transit, students are required to resubmit the "lost assignments" for marking. It is a good idea to make a copy of your assignment before submitting it.
8. Contact your teacher if you will not be working on your course for a period of time
9. **Course Expiry** - You have 12 months from the start of your course before your course expires without extension.
10. **If you need to complete a percent of this course to attend your school valedictory ceremony, you must have that percent of the course completed and turned in by April 15 at the latest.** Previous experiences have shown that failure to meet this deadline will prevent you from participating in the Valedictory Ceremony.
11. **Academic Probation and Withdrawal** - Students must be actively working on their courses on a regular basis as indicated by submission of assignments, test completion, or communication with their teacher. Lack of regular activity results in a student being placed on Academic Probation. Continued lack of activity then results in withdrawal from the course. Contact you teacher if you need more than three weeks to submit your next assignment or write your next test, or if you are getting behind. It is your responsibility to communicate your circumstances to your teacher

## Pre-Calculus Math 12 – Completion Schedule

DE allows students flexibility in school work; sticking to a schedule ensures timely completion to achieve your goals. **Use the following table to complete your course in 19 weeks (1 semester) or to create your own schedule.** You may choose to complete the course faster or slower. You have one year until your course expires.

| Week    | Activities   |
|---------|--|
| Week 1  | Module 1 – Unit 1 – Lessons 1, 2, 3  |
| Week 2  | Module 1 – Unit 1 – Lessons 4, 5, 6, Send-In Assignment for Unit 1                       |
| Week 3  | Module 1 – Unit 2 – Lessons 1, 2, 3  |
| Week 4  | Module 1 – Unit 2 – Lessons 4, 5, 6, Send-In Assignment for Unit 2                       |
| Week 5  | Module 2 – Unit 3 – Lesson 1, 2, 3   |
| Week 6  | Write Module 1 Test<br>Module 2 – Unit 3 – Lessons 4, 5, Send-In Assignment for Unit 3   |
| Week 7  | Module 2 – Unit 4 – Lessons 1, 2, 3  |
| Week 8  | Module 2 – Unit 4 – Lesson 4, 5, 6   |
| Week 9  | Module 2 – Unit 4 – Lessons 7, 8, 9, Send-In Assignment for Unit 4                       |
| Week 10 | Module 3 – Unit 5 – Lessons 1, 2, 3  |
| Week 11 | Write Module 2 Test<br>Module 3 – Unit 5 – Lessons 4, 5, 6                               |
| Week 12 | Module 3 – Unit 5 – Lessons 7, 8, 9 Send in Assignment for Unit 5                        |
| Week 13 | Module 3 – Unit 6 – Lessons 1, 2, 3  |
| Week 14 | Module 3 – Unit 6 – Lessons 4, 5, 6 Send in Assignment for Unit 6                        |
| Week 15 | Module 4 – Unit 7 – Lesson 1, 2, 3   |
| Week 16 | Write Module 3 Test<br>Module 4 – Unit 7 – Lessons 4, 5, 6 Send in Assignment for Unit 7 |
| Week 17 | Module 4 – Unit 8 – Lesson 1, 2, 3   |
| Week 18 | Module 4 – Unit 8 – Lessons 4 Send In Assignment for Unit 8                              |
| Week 19 | Write Module 4 Test  |

### Module 1: Transformations + Graphing Radicals & Rationals

Unit 1 – Transformations: Functions & their Graphs; Translating Function Graphs; Reflecting Function Graphs; Compressing & Expanding Function Graphs; Combining Transformations; Reciprocal Transformations; Send-In Assignment

Unit 2 – Graphing Radicals & Rationals: Transformations of Radical Functions; Square Root Function; Solving Radical Equations; Graphing Rational Equations; Analyzing Rational Equations; Equations & Graphs of Rational Functions; Send-In Assignment

### Module 2: Polynomials + Exponents & Logarithms

Unit 3 – Polynomials: Remainder Theorem; Factor Theorem; Factoring Polynomials; Solving Polynomial Equations; Graphing Polynomial Functions; Send-In Assignment

Unit 4 – Exponents & Logarithms: Exponent Laws; Solving Equations with Exponents; Logarithm; Law of Logs; Solving Log and Exponential Equations; Exponential Functions; Applications of Exponential Functions; Graphs of Exponential Functions; Send-In Assignment

### Module 3: Circular Functions + Trig Equations & Identities

Unit 5 – Circular Functions: Radian Measure; Angles in Standard Position; Sine, Cosine, Tangent; Sine cosine & Tangent of special angles; Graphing Sine & Cosine; Transformations of Trig Functions; Sinusoidal Functions with Rational Periods; Applications of Sinusoidal Functions; Graphing Tangent Functions; Graphing Trig Reciprocal Functions ; Send-In Assignment

Unit 6 – Trig Equations & Identities: Solving Trig Equations; Trig Equations & exact Values; Trig Identities; Sum & Difference Identities; Double Angle Identities; Send-In Assignment

### Module 4: Permutations & Combinations + Function Notation & Operations

Unit 7 – Permutations & Combinations: Fundamental Counting Principle; Permutations on Different Objects; Permutations on Identical Objects; Combinations; Pascal’s Triangle/Binomial Theorem; Send-In Assignment

Unit 8 – Function Notation & Operations: Function Notation; Sums & Differences; Products & Quotients; Compositions of Functions; Send-In Assignment

This course is based on the learning outcomes for Pre-Calculus Math 12 viewable at:

[http://www.bced.gov.bc.ca/irp/pdfs/mathematics/WNCPmath1012/2008math\\_precalc1112.pdf](http://www.bced.gov.bc.ca/irp/pdfs/mathematics/WNCPmath1012/2008math_precalc1112.pdf)

Full Curriculum:

[http://www.bced.gov.bc.ca/irp/pdfs/mathematics/WNCPmath1012/2008math1012wnep\\_ccf.pdf](http://www.bced.gov.bc.ca/irp/pdfs/mathematics/WNCPmath1012/2008math1012wnep_ccf.pdf)