

SAMPLE COURSE OUTLINE

Creation date: March 13, 2020

Revision date:

Course Code, Number, and Title:

MATH 1170: Precalculus Mathematics

Course Format:

Lecture 4.0 h + Seminar 0.0 h + Lab. 0.0 h

Credits: 3.0

Transfer Credit: For information, visit bctransferguide.ca

Course Description:

A one-term pre-calculus course for stronger students which is intended to lead into the "full-speed" calculus sequence starting with MATH 1171 or MATH 1173/1183. The MATH 1170 curriculum comprises material covered in high school with emphasis on the transcendental functions found in most Grade 12 curriculum and is intended as a reinforcement of these basic topics. It includes a review of algebraic functions and their graphs and a solid coverage of exponential and logarithmic functions as well as trigonometry and trigonometric functions, including inverse trigonometric functions. This course is not tied to the high school curriculum, but is designed to be a fast-paced review of many topics encountered at the high school. The material is covered in greater depth, with an emphasis on speed and proficiency of algebraic manipulations, problem-solving and practical applications. The objective is to upgrade existing knowledge to the level required for calculus.

Prerequisite(s): minimum "C+" grade in Principles of Mathematics 12 or PreCalculus 12, or permission of the department (based on the MDT Process), or a minimum "C-" grade in MATH 1152 . Prerequisites are valid for only three years.

Learning Outcomes:

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

- Construct functions that model various word problems
- Use basic transformations to sketch graphs of functions of the form $y=af(bx+c)+d$, for specified constants a , b , c , and d
- Sketch the graph of piecewise-defined functions
- Use long division to divide two polynomials
- Use the factor theorem to find all real zeroes of a polynomial
- Find the inverse function of a function given the graph or the formula of the function

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- Simplify logarithmic and exponential expressions
- Find an algebraic solution of an exponential or logarithmic equation
- Sketch the graphs of exponential and logarithmic functions
- Define arc length and area of a sector
- Define the six trig functions of any angle
- Solve problems using the law of sines, law of cosines, and right-triangles
- Use the addition and subtraction formulae, the double-angle formulae for sine, cosine and tangent to verify trigonometric identities
- Solve trig equations
- Sketch the graph of trig functions using transformations

Instructor(s): TBA

Office: TBA

Phone: (604) 323-XXXX

Email: TBA

Office Hours: TBA

Textbook and Course Materials:

Textbook selection may vary by instructor. An example of texts and course materials for this course might be:

Swokowski & Cole, *Precalculus: Functions & Graphs*, 13th Edition

For textbook information, visit https://mycampusstore.langara.bc.ca/buy_courselisting.asp?selTerm=3|8

Note: This course may use an electronic (online) instructional resource that is located outside of Canada for mandatory graded class work. You may be required to enter personal information, such as your name and email address, to log in to this resource. This means that your personal information could be stored on servers located outside of Canada and may be accessed by U.S. authorities, subject to federal laws. Where possible, you may log in with an email pseudonym as long as you provide the pseudonym to me so I can identify you when reviewing your class work.

Assessments and Weighting:

Final Exam 40%

Other Assessments 60%

Information unavailable, please consult Department for details.

Grading System:

Specific grading schemes will be detailed in each course section outline.

Information unavailable, please consult Department for details.

Topics Covered:

Information unavailable, please consult Department for details.

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As a student at Langara, you are responsible for familiarizing yourself and complying with the following policies:

College Policies:

[E1003 - Student Code of Conduct](#)

[F1004 - Code of Academic Conduct](#)

[E2008 - Academic Standing - Academic Probation and Academic Suspension](#)

[E2006 - Appeal of Final Grade](#)

[F1002 - Concerns about Instruction](#)

[E2011 - Withdrawal from Courses](#)

Departmental/Course Policies:

Information unavailable, please consult Department for details.

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