

Dalhousie's College of Continuing Education's University Preparatory Program, in conjunction with the Mathematics Department, is offering 5 sessions covering some of the key prerequisites for Calculus 1000. This should help to make the terminology and concepts in each of the subsequent weeks calculus classes clearer.

These fast paced sessions are intended for students who have already studied the material but just need a refresher. Students requiring more than a Saturday refresher (ie. <14 on the Calculus Math Diagnostic Evaluation) are encouraged to consider the 1 term Pre-Calculus course, which can be followed by calculus 1000 in the winter term.

In fact, after the September 16th class, only students scoring >13 on the Calculus 1000 math diagnostic will be allowed in the refresher class.

This stipulation is in place to help students have realistic expectations for their math.

Few, if any students, scoring <14 on the diagnostic will pass the 1-term calculus.

They have 2 options:

a) If they have studied pre-calculus before and feel they can complete the course by stretching it over the full year, then Calculus 1000 XY could be the ticket.

b) If you have not studied pre-calculus before or it has been over 2 or 3 years, then perhaps a 1 or 2 term pre-calculus course tailored for Calculus 1000 would be what is needed. The 1-term course dovetails into the Jan. calculus 1000

M,W,F 12:30-1:30 course.

Handouts describing the pre-calculus courses are available from the instructor

Saturday, Sept. 23th , please bring your student ID with you to the refresher session:

Your mark on the diagnostic test will be checked before entering the class.

Fall 2006 Sat morning refresher classes for Calculus 1000:

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Please bring your calculus text and, if you have one, a graphing calculator .

Topics for Saturday's Complementary Refresher Sessions:

Auditorium - Computer Science Bldg. Room 127, University Ave

Class 1: Saturday, Sept. 9, 9:00a.m. –12:00p.m.

Rational Functions: sketching, domain, asymptotes, and discontinuities. Concept of Limit through visualisation: Finding the horizontal asymptote using limits. Quick graphing of basic functions: Linear, quadratic, radical, absolute value, rational, e^x , $\ln x$.

Class 2: Saturday, Sept. 16, 9:00a.m. –12:00p.m.

Slope of secant line; Use with limits to form Definition of a Derivative. Work out examples with a radical, rational, and quadratic function. Power Rule - as a check whether the answer obtained using the definition is correct. (Include terms secant line, tangent line) - If time, review of transformations of basic functions graphed at end of Sept 10th session.

Class 3: Saturday, Sept. 23, 9:00a.m. –12:00p.m.

Review Properties of exponents, changing from radical form to exponential form so that power rule can be used .

Exponential and Logarithmic functions using base "e". Inverse functions.

Using Properties of Logarithms to solve exponential and logarithmic equations

Class 4 Saturday, September 30, 9:00a.m. –12:00p.m.

Trigonometry- Review radian measure, Use the unit circle to determine trig values for various angles. Sketch sine and cosine functions and their basic transformations.

Use sketches of sine, cosine and tangent functions to determine the domain and range of the inverse trig functions.

Class 5 **Friday. Oct. 7th, 2:00-5:00p.m. McCain Bldg Rm 1198**

Trigonometric Identities: Pythagorean Identities, sum & difference formula, double angle formula . Translating applied minimum and maximum problems into appropriate algebraic formulas.

Low Results on the Math 1000 Diagnostic?

You **can** successfully pass MATH 1000.03.

“Pre-Calculus” has been designed to give you the necessary tools to succeed at Calculus. Developed in consultation with professors in the Dalhousie Math Department, this class enables you to **fill in missing math skills** so that you get maximum results for your effort when you take MATH 1000. Our small class size < 35 ensures individual help for each student.

MATH .0011 Pre-Calculus

This fast paced **1 term** course covers key concepts required for calculus. It is ideally suited to students who have recently completed grade 12 advanced math or those who have taken Pre-Calculus some time ago. Students are expected to have a firm grasp of Grade 11 and 12 math concepts.

Section 1: **Fall:** Sept 18 2006 - Dec 8, 2006
Class: Mon & Wed & Friday, 12:35 - 1:25 p.m.
Tutorial: Mon & Wed & Friday 12:05 - 12:35 p.m.
Exam: Dec 8, 2006, 10 am - 1 p.m.
Fee: \$350 (Text required \$40.00 from office or instructor)
Instructor: Kathryn Reno-Horne

Section 2: **Winter:** Jan.4, 2007 – April 7, 2007
Class: Tues & Thurs.4:05 - 5:25 p.m.
Tutorial: Tues & Thurs. 3:35 - 4:05 p.m.
Exam: April 7, 2007, 10 am - 1 p.m.
Fee: \$350 (Text required)
Instructor: Kathryn Reno-Horne

MATH .0010 Pre-Calculus PLUS

PRE-CALCULUS PLUS is a **full year** course covering, in addition to the 1 term pre-calculus course material, a thorough review of the algebra, exponential and logarithmic functions and trigonometry from Grade 11 and 12 as well as covering area under the curve. It is designed for students who need the background concepts, and prefer a more detailed explanation of the pre-calculus material. Students who have been away from math for 2 or more years or did not make 80% or more in Academic math 12 often find this course the better fit.

Section 1: Sept 19, 2006 - April 7, 2007
Class: Tuesdays and Thursdays, 12:05 - 1:25 p.m.
Tutorial: Tuesdays and Thursdays, 11:35 - 12:05 p.m.
Exam: April 7, 2007, 10 am - 1 pm
Fee: \$550 (text required)

For more course information, or to register please contact

Dal University Prep Program, 1220 LeMarchant St., Halifax
Tel: 494-2375, Fax: 494-6875, Email: hensonreg@dal.ca
www.dal.ca/cce/uprep 