

Math 105 – Winter 2005
Camosun College

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Office hours: Mon – Fri 10:30 – 11:10; Tues & Thurs 1:30 – 2:00
You are welcome to try me at other times. If my office door is open, I'll be happy to help. Please, just one or two questions per visit. Come often!

Class times: 9:00 – 10:20 daily in Y217
(We might start a few minutes early with homework questions.)

Math Room: Ewing 224 (370 - 3503)
This is a drop-in centre where you can work on your math homework and get free help from the math tutor.

Required Textbooks: (1) Precalculus **6th** edition by Larson and Hostetler
(2) 7 sets of supplementary problems handed out in class. Unfortunately, we need to charge a small fee for these handouts. Please buy a “chit” for MATH 105 at the cashier in the bookstore and bring that “chit” to class on **Thurs Jan 20**.

References: The textbook, Student Solution Manual & accompanying **videotapes** are on reserve in the library.

Calculator: Non-graphing non-programmable calculator for tests/final. The first test will be done without any calculator to check your basic number/fraction skills!

Prerequisite: The minimum recommended prerequisite is a recent C in Math 11 or MATH 073. (formerly 063). If you have not taken math for more than 2 years, then you probably want to take 073 or 092 rather than this course. Please come to my office and see me ASAP so that we can discuss your background and get you into the right course.

Mark to aim for: If you are going on to Math 100 (calculus for science students), then you need to achieve a **B** in this course. For most other math courses, a grade of C in Math 105 is sufficient.

Out-of-class Workload: 1.5 – 2.5 hours/day
This is an intensive 6-credit course. You are in class every weekday for 1.5 hours; you will usually need to match that with at least 1.5 hours of homework per day. On your timetable, schedule time for your math homework every day. You may find that you are more productive if you break your math study time into two 50 minute blocks per day rather than one marathon homework session. It is **really important to establish a routine**. If you fall behind in this intensive course, it will be difficult to catch up.

Tips for Success:

1. Attend every class and work hard in class. Please ask questions if you don't understand something.
2. Do your homework every day. Unfortunately, math is not a spectator sport. It requires a lot of hard work and practice. Please work through the questions thoughtfully; don't just try to get your homework over with! It is best not to have the solution manual open in front of you; consult it only after you have tried a problem a couple of times. Remember to do the harder problems on the supplementary worksheets as well as those in your textbook.
3. Please ask for help before you get behind or frustrated. If you can't get the correct answer, bring me all your attempts so that I can see what you are thinking.

Course Objectives:

The four very ambitious objectives of this course are:

- To strengthen your algebra background. To ensure that you are very comfortable pushing around symbols correctly!
- To build up a library of functions that you can graph and manipulate with ease.
- To continue developing your ability to read mathematics, to write mathematics correctly and to communicate effectively about the mathematics you are learning.
- To begin developing your ability to read and write proofs.

Course Content:

MATH 105 is an algebra and precalculus course.

Appendix A: Review of the Fundamental Concepts of Algebra A.1 – A.8 (all)
 Ch 1: Functions and Their Graphs 1.1 – 1.8 (omit 1.9)
 Ch 2: Polynomial and Rational Functions 2.1 – 2.6 (omit 2.7)
 Ch 3: Exponential and Logarithmic Functions 3.1 – 3.5 (all)
 Ch 4: Trigonometry 4.1 – 4.8 (all)
 Ch 5: Analytic Trigonometry 5.1 – 5.5 (all)
 Ch 7: Systems of Equations 7.1 & 7.2 only
 Ch 10: Analytic Geometry 10.1 – 10.5 (light treatment)
 Calculus: Limits & The Derivative

Test Information:

The tests are based on the problems we do in class, the homework from the textbook and the 7 sets of harder supplementary problems. Please see the pacing schedule for the test dates. I expect that some of you will miss a test due to illness or a family emergency. If there were just one midterm, then I would arrange for a makeup test. However, with so many tests, makeups are just not practical. Instead, please submit a doctor’s note or other documentation and I will determine a mark for that test based on how you do on that material on the final exam. Please note that the final exam is timetabled by registration and occurs in week 15 or 16.

Grade Calculation:

Best 6 of 7 Term Tests: 50%*
 Final Exam: 50%*

*To obtain a grade of C or higher in this course, you need to achieve an overall grade of at least 60% AND you must obtain a passing grade (at least 50%) on both your term work and the final exam. The reason that we require a passing term grade is that math that is learned slowly over a period of time is usually retained for longer; information that is crammed in just before a final exam may be quickly forgotten. We also require a passing grade on the final exam since it is a cumulative test that puts all the bits and pieces together.
 To obtain a grade of A+ in the course, your term work must be at least 90% and your overall average must be at least 95%.
 If you do well on the final exam and you have a passing term grade, then we will weight your exam for 100% (with the A+ exception noted above).

Grade Scale:

To obtain a grade of C or higher in the course, please see the comments above.

A+	95 - 100	B+	80 - 84	C+	65 - 69
A	90 - 94	B	75 - 79	C	60 - 64
A-	85 - 89	B-	70 - 74	D	50 - 59
				F	< 50

Good luck and please come for help before you fall behind.