Math 105 – Winter 2004
Camosun College

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Office hours: 8:45 – 9:00 daily (before class in our classroom)
10:30 – 11:00 and 1:30 – 2:00 Tues – Fri
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 – 10:30 daily in Y217

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 Aubrey, our math tutor.

Textbook: Precalculus **6'th** edition (new edition this past fall) by Larson and Hostetler

References: Textbook, Student Solution Manual & Videotapes
(on reserve in the library)

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

Prerequisite: The minimum recommended prerequisite is a recent C in Math 11 or Math 063. If you have not taken math for a few years, then you probably need to take Math 063 first. Please come to my office and see me ASAP so that we can discuss your math 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 each day with 1.5 hours of homework. Look at your timetable and schedule in daily homework time for math. You may find that you are more productive if you break your math study time into two or three half-hour blocks rather than one marathon homework session. It is really important to establish a routine now. If you fall behind in this intensive course, it will be difficult to catch up.

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: Algebra Review 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 – 10.4 and a tiny bit of 10.5
Calculus: Limits & The Derivative

Test Information: The tests are based on your homework and the material that we cover in class. The first test is **Friday Jan 30**. I'll hand out a schedule in week 3 showing the dates for the remaining 2 term tests. Usually it is not possible to make up a missed test. However, if you provide me with adequate written documentation for your absence, I will estimate a grade for that test based on how you do on that section on the final exam.

In addition to these tests, there will be a number of short quizzes and "show and tell" problems throughout the term. It may be possible to make up one missed class quiz; please see me ASAP.

The final exam occurs after Easter in week 15 or 16.

Grade Calculation:

3 Term Tests:	37.5%
"Show and Tell" &Quizzes:	12.5%
Final Exam:	50%*

* If you do better on the final exam, then we will weight your exam for more than 50% if it is to your advantage. There are some conditions. Keep reading.

Your term work (the first two rows of the grade calculation above) is very important. Math that is learned over a period of time is retained for longer; information that is crammed in just before a final is usually quickly forgotten. Furthermore, two of the course objectives, writing about the mathematics you are learning and writing proofs are only assessed in your term work; we do not ask for proofs or detailed step-by-step verbal explanations on the final exam.

So, here is the deal. If it is to your advantage, then you will receive your final exam mark up to a maximum of your term mark + 10%. And, to show how important we think the term work is, we will say that regardless of how you do on the final exam, the lowest grade you will receive is your term mark – 10%. (Of course, when we say term mark we mean your term mark as a percentage, i.e. out of 100.)

Occasionally someone blows a test even though they attend class regularly and keep up with their homework. (Life isn't fair.) If that happens to you, then please provide me with a written request for special consideration and attach a copy of the test. Please do this before the last week of class. If you do well on that material on the final exam, I can boost your test score accordingly.

And, if you prefer to just work through the course at your own rate and not bother with class quizzes and tests, then you may challenge the course instead of registering for it. The good news is that you only have to pay ½ of the course fee. See Bill Calver (E248) for information about how to register for a course challenge in math. If you decide to challenge, remember to formally withdraw from this course before the end of week 2.

Understand all of the above? Your first "show and tell" problem will give you practice calculating final grades under different scenarios.

Grade Scale:

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

Tips for Success:

1. Attend every class and work hard in class. 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.
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.