Mathematics 073
Advanced Mathematics 2
Spring/Summer, 2016

Instructor: Pat Giommi
Lansdowne Office: Ewing 250 Ph#:250-370-3404
E-mail: giommip@camosun.bc.ca
Website: http://online.camosun.ca

Timetable:

Time / Day	Monday	Tuesday	Wednesday	Thursday	Friday
4:30 – 5:20 pm	Office Time		Office Time		
5:30 – 7:50 pm	Math 072/073 E346		Math 072/073 E346		
Additional Office Hours by Appointment					

1. Important Dates:

May 2	First day of classes for the Spring/Summer term
May 9	Fee Deadline (Spring '16, 7-week)
May 16	Fee Deadline (Spring/Summer '16, 14-week)
May 23	Victoria Day – College closed
June 1	Withdraw Deadline (Spring '16, 7-week)
June 18	Last day instruction (most Spring '16, 7-week)
June 20-22	Exam Period begins for Spring '16, 7-week courses
July 1	Canada Day – College closed
July 4	Withdraw Deadline (Summer '16, 14-week)
Aug 1	BC Day – College closed
Aug 6	Last day instruction (Summer '16, 14-week)
Aug 8-12	Exam Period begins for Summer '16, 14-week courses

2. Intended Learning Outcomes (4 credits)

This course is the second half of Math 11 and is an excellent refresher for those who wish to upgrade before Math 12 or Pre-Calculus.
Topics include: polynomial and polynomial function review, rational and radical expressions and equations, quadratic equations and functions, right triangle trigonometry, trigonometric functions of any angle and the Sine and Cosine Laws.

The sections covered in the textbook are:

Unit 1: Ch 4 Polynomials & Polynomial Functions Review	4.1 – 4.8
Unit 2: Ch 5 Rational Expressions, Equations & Functions	5.1 – 5.8 (Include 1.3b, 3.4b & 5.6c)
Unit 3: Ch 6 Radical Expressions, Equations & Functions	6.1 – 6.8f (Review R.7)
Unit 4: Ch 7 Quadratic Equations & Functions	7.1 – 7.7a
Unit 5: Trigonometry (*not in Textbook*)	Notes on D2L site

For a detailed synopsis of material covered in the course, refer to Course Content section below.

See Camosun College calendar for more information:
http://camosun.ca/learn/calendar/current/web/math.html

3. Building for Success

The course completion time will vary for each student, depending on a number of factors to be discussed with the instructor when the **individual learning plan** is developed. Factors include the students' beginning level of math skills, motivation, learning rate, and how much time they can actually study and attend class. It takes 2 – 4 hours to read through one section and do both the margin exercises and enough exercises in the exercise set to feel comfortable with the material. There are 35 sections in this course; this means that you have between **70 – 140 hours of work** ahead of you not including study time for tests and the final exam! If you work 5 days a week on this course, then you need to put in 2 – 4 hours a day to finish the course in one term. There is lots of help available; you can ask me questions during class or during office times, or you can get help from the math tutors in the MathLabs.

4. Required Materials

i. *Intermediate Algebra*, 12th Edition, Marvin Bittinger
Textbook comes packaged with the Student's Solution Manual, Algebra Review Study Card and *MyMathLab*.

ii. The only calculator allowed on tests and the final exam is the **Sharp EL-531** scientific calculator.

5. Math Labs

Ewing 342 & 224 (LANS) and Tec142 (INT): These drop-in centres are available for you to work on math homework and to seek **free** help from the Instructional Assistant. See the hours posted on the math lab doors or go to http://camosun.ca/learn/programs/math/labs.html.
Study Tips: It is recommended that approximately 3-6 hours per week be spent studying and completing homework for this course outside of class time. Find a study buddy to discuss math problems and **use the math labs**.

6. Student Assessment, Grading and Policies

Tests: There are a minimum of 5 tests and the final exam. The tentative dates and topics are on the pacing schedule.
If you get less than 65% on a test you must complete a rewrite. Otherwise, if you get more than 65% you have the option of rewriting it once. All test marks will count towards your final mark.
To re-register for the course for one extra term, *you must have at least **75% of the work done** or at least have a **75% attendance record***.

You can choose to write the tests when you feel you are ready. It is strongly recommended that you complete the suggested homework and do the Summary & Review and the Chapter Test

which accompanies each unit. You are also encouraged to attempt the quizzes using MyMathLab. *You must get permission of your instructor to write each test and the comprehensive final exam*.

All tests and the final exam are written in the Math Lab (E342) during math lab hours which are posted on the math lab door. Please be aware that lab hours may change during the term due to staff availability. Allow one and a half hours to write the tests and 3 hours to write the final exam. If you want to complete the course in one term, you should plan to write a test every 2-3 weeks. There is **no rewrite for the final exam**.

Grade Calculation: The final grade will be calculated according to the following breakdown:

Tests 50%
Final Exam 50%

Grade Scale:

Percent Range	0-49	50-59	60-64	65-69	70-72	73-76	77-79	80-84	85-89	90-100
Letter Grade	**F**	**D**	**C**	**C+**	**B–**	**B**	**B+**	**A–**	**A**	**A+**

For information on Camosun College's grading policy, see the webpage: http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning. This information is available in the College Calendar, Registrar's Office or the College web site at http://camosun.ca/

STUDENT CONDUCT POLICY

There is a Student Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.
http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf

ACADEMIC PROGRESS POLICY

The College has an academic progress policy geared mainly toward "at risk" students, the stated intention for which is to improve a student's likelihood of success. To view the policy, see the webpage http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf

7. Course Content

Homework for Unit 1 (Chapter 4)			
Unit 1	**Section**	**Margin Exercises**	**Practice**
4.1	Introduction to Polynomials and Polynomial Functions	Review	1, 5, 7, 21, 25, 29, 35, 41, 51, 55, 67, 73, 79
4.2	Multiplication of Polynomials	Review	1, 5, 11, 13, 15, 21, 23, 27, 33, 41, 51, 55, 65, 71, 77, 81, 85, 91
4.3	Introduction to Factoring	Review	1, 5, 9, 11, 17, 21, 25, 29, 33, 37, 43, 47, 49
4.4	Factoring Trinomials: $x^2 + bx + c$	Review	1, 5, 7, 11, 13, 19, 21, 23, 25, 27, 29, 33
4.5	Factoring Trinomials: $ax^2 + bx + c, a \neq 1$	Review	1, 5, 9, 19, 25, 29, 33, 41, 45, 51
4.6	Special Factoring	Review	1, 5, 11, 17, 25, 33, 35, 39, 43, 47, 53, 61, 63, 69, 71, 75, 79, 89, 95
4.7	Factoring: A General Strategy	Review	1, 3, 5, 7, 11, 17, 19, 23, 25, 29, 31, 35, 43, 49, 51
4.8	Applications of Polynomial Equations & Functions	All	1, 5, 9, 13, 17, 21, 29, 33, 37, 39, 41, 47, 51, 53, 55, 63, 65, 69, 71, 73,75, 77
Unit 1 Test: Chap 4			

Homework for Unit 2 (Chapter 5)			
Unit 2	**Section**	**Margin Exercises**	**Practice**
5.1	Rational Expressions and Functions	All	1, 3, 5, 7, 13, 15, 19, 21, 25, 27, 29, 31, 35, 37, 41, 45, 49, 51, 55, 57
5.2	LCMs, LCDs, Addition and Subtraction	All	3, 11, 13, 19, 23, 27, 31, 33, 35, 39, 45, 49, 55, 63, 67, 71
5.3	Division of Polynomials	All	1, 5, 9, 11, 15, 19, 21, 23, 29, 31, 33
5.4	Complex Rational Expressions	All	1, 5, 9, 13, 17, 19, 21, 23, 27, 29, 31
5.5	Solving Rational Equations	All	1, 5, 9, 11, 15, 19, 23, 25, 27, 33, 35, 41, 43
5.6c only	Applications and Proportions	5, 6	27 – 33 Odds
5.7	Formulas and Applications	All	1 – 23 Odds
5.8	Variation and Applications	All	1, 5, 7, 9, 15, 17, 21, 25, 29, 31, 39, 41
Unit 2 Test: Chap 5			

Homework for Unit 3 (Chapter 6)			
Unit 3	**Section**	**Margin Exercises**	**Practice**
6.1	Radical Expressions and Functions	All	7, 9, 11, 13, 15, 19, 23, 25, 27, 29, 35, 43, 45, 51, 53, 61, 63, 65, 67, 69, 71
6.2	Rational Numbers as Exponents	All	3, 7,15, 21, 29, 33, 39, 41, 43, 45, 49, 51, 53, 55, 59, 63, 69, 71, 73, 75, 79
6.3	Simplifying Radical Expressions	All	1,5, 9, 13, 17, 21, 25, 29, 33, 39, 41, 49, 53, 55, 59, 67, 71, 75,79, 83, 87, 89

6.4	Addition, Subtraction, and More Multiplication	All	1, 5, 9, 13, 17, 19, 23, 33, 37, 43, 47, 51, 57, 61, 67, 71, 73
6.5	More on Division of Radical Expressions	All	1, 5, 9, 13, 17, 21, 25, 29, 31, 34
6.6	Solving Radical Equations	All	1, 5, 9, 17, 19, 21, 27, 29, 33, 37, 41, 47, 53, 55, 57
6.7	Applications Involving Powers and Roots	All	1, 5, 7, 11, 13, 17, 19, 21, 23, 29
6.8 (omit f)	The Complex Numbers	1 - 30	1, 5, 13, 17, 19, 27, 31, 35, 39, 47, 71, 77, 81, 87
Unit 3 Test: Chap 6			

Homework for Unit 4 (Chapter 7)

Unit 4	Section	Margin Exercises	Practice
7.1	The Basics of Solving Quadratic Equations	All	1, 5, 9, 13, 17, 21, 25, 33, 39, 43, 47, 49, 51, 55, 57
7.2	The Quadratic Formula	All	1, 3, 11, 17, 21, 29, 33, 35, 41
7.3	Applications Involving Quadratic Equations	All	3, 5, 9, 11, 13, 19, 21, 25, 31, 35, 37, 39, 41, 43, 47
7.4	More on Quadratic Equations	All	1, 5, 9, 15, 17, 21, 23, 29, 31, 33, 35, 37, 39, 43, 47, 49, 55
7.5	Graphing $f(x) = a(x-h)^2 + k$	All	1, 5, 9, 13, 17, 19, 21, 23
7.6	Graphing $f(x) = ax^2 + bx + c$	All	1, 5, 7, 9, 15, 19, 21
7.7a	Mathematical Modeling with Quadratic Functions	1	1 – 17 Odds
Unit 4 Test: Chap 7			

Homework for Unit 5 (Trigonometry)

Unit 5	Section	Margin Exercises	Practice
T6.1	Trig Functions of Acute Angles	n/a	1-29 odd, 37, 49, 55, 61, 69, 71, 79-91 odd, 97
T6.2	Application of Right Triangles	n/a	1, 3, 9, 13, 15, 17, 21, 25, 29, 31, 35
T6.3	Trig Functions of any Angle	n/a	1,5,9,13,15,19,23,25,29,39, 41,45,47,51,61,75, 83, 87, 93, 97,105
T8.1	Law of Sines	n/a	1, 3, 5, 9, 13, 15, 17, 21, 25, 27
T8.2	Law of Cosines	n/a	1, 3, 7, 9, 13, 17, 19, 21, 25, 31
Unit 5 Test: Trig			
Final Exam Preparation			

8. Pacing Schedule (suggested)

Week	Month	Monday	Wednesday	Notes
1	May	*2* §4.1 - §4.3	*4* §4.4 - §4.6	
2		*9* §4.7 - §4.8	*11* §5.1 - §5.2	
3		*16* §5.3 - §5.4	*18* §5.5	
4		*23* §5.6 - §5.8	*25* §6.1 - §6.2	
5	May/June	*30* §6.2 - §6.3	*1* §6.4 - §6.5	
6		*6* *§6.6*	*8* §6.7	
7		*13* §6.7 - §6.8	*15* §7.1 - §7.2	
8		*20* §7.3	*22* §7.4	Exam Period for Spring 2016 7-week courses
9		*27* §7.5	*29* §7.6	
10	July	*4* §7.7a	*6* T6.1	
11		*11* T6.2	*13* T6.3	
12		*18* T8.1	*20* T8.2	
13		*25* Review	*27* Review	
14	Aug	*1* No classes	*3* Review	
15		*8-12* Exam Period		

***Accelerated course completion (7 weeks) requires doubling of workload.**

9. Class Protocols

a. Sign in with the instructor.
b. Bring your textbook, calculator and work materials to every class.
c. Work quietly. I encourage you to help each other but please keep the noise level down and keep cell phones on vibrate mode. If you would like to work with a partner or in a group, please feel free to use the math lab. If you would like to take a break from math (and this is totally understandable) please chat outside the classroom.
d. If you bring snacks to class, please be respectful of others and tidy up afterwards. Let me know if you have any allergies. Thanks.
e. If you need help and I'm with another student, please put your name on the board so I know you're waiting. If others are waiting, I may have to limit the time I spend with you. i.e.; 2 questions at a time.
f. When doing the exercises, label each question clearly, write out the question and **show your work**. This makes it easy to review for the test and to get help if you don't understand.
g. If you have trouble with an exercise, highlight the question and make a note in your margin about what you don't understand. When you ask for help in class, bring the question and your work for the instructor to see. Be organized!

10. Ensuring Success

a. Come to class every day. If you don't attend class, it's easy to fall behind and much tougher to catch up as you have to relearn the material.
b. Do the suggested exercises from your course outline. Work through the problems thoughtfully, not just to get them done. Think about what the instruction means, what a similar question might look like on the test and what are some of the pitfalls that you need to avoid.
c. Try to find time to do at least a bit of math at least 5 days a week. On your timetable, schedule time each day for your math homework; it is really important to establish a routine. You can't put your math course on the back burner and hope to cram it in at the end.
d. Notify the instructor asap if you anticipate being absent for any lengthy period of time due to illness or other unforeseen events.
e. If you don't understand something seek help right away from your instructor or from the tutors in the Math lab in E224 and E342.
f. Keep working, stay positive and do the best you can, given all the other demands in your life.

Pearson's MyMathLab
Student Registration Instructions

To register for MATH 072/073 2016:

1. Go to http://www.pearsonmylabandmastering.com/.
2. Under Register, select **Student**.
3. Confirm you have the information needed, then select **OK! Register now**.
4. Enter your instructor's course ID: giommi81972, and **Continue**.
5. Enter your existing Pearson account **username** and **password** to **Sign In**.

You have an account if you have used a Pearson product, for example: MyMathLab, MyITLab, MyPsychLab, MySpanishLab or Mastering, such as MasteringBiology.

If you don't have an account, select **Create** and complete the required fields.

6. Select an access option.
   - Use the access code that came with your textbook or that you purchased separately from the bookstore.
   - Buy access using a credit card or PayPal account.
   - If available, get 14 days temporary access. (The link is near the bottom of the screen.)
7. From the confirmation page, select **Go To My Courses**.
8. On the My Courses page, select the course tile MATH 072/073 2016 to start your work.

To sign in later:

1. Go to http://www.pearsonmylabandmastering.com/.
2. Select **Sign In**.
3. Enter your Pearson account **username** and **password**, and **Sign In**.
4. Select the course tile MATH 072/073 2016 to start your work.

To upgrade temporary access to full access:

1. Go to www.pearsonmylabandmastering.com.
2. Select **Sign In**.
3. Enter your Pearson account **username** and **password**, and **Sign In**.
4. Select **Upgrade access** from the course tile MATH 072/073 2016.
5. Enter an access code or purchase access with a credit card or PayPal account.

For a registration overview, go to http://www.pearsonmylabandmastering.com/students/get-registered. Scroll down to **Need a little help?** and select a video.