Mathematics 137-001
Algebra and Triangle Trigonometry
Winter, 2018

Instructor: Cathy Frost **Lansdowne Office:** Ewing 250 **Ph#**:250-370-3404
E-mail: frost@camosun.bc.ca
Websites: http://online.camosun.ca - course materials/grades http://pearsonmylabandmastering.com **-** online assts

Timetable:

Time	Monday	Tuesday	Wed	Thursday	Friday
9:30-11:20pm	Math 137-001 E346	Math 137-001 E346	Math 137-001 E346	Math 137-001 E346	
11:20-12:20pm	Office Hour	Office Hour	Office Hour	Office Hour	
12:30-2:20pm	Math 137-003 E346	Math 137-003 E346	Math 137-003 E346	Math 137-003 E346	
2:30-3:30 pm			Office Hour		
Additional Office Hours by Appointment					

Important Dates:

Jan 22	Fee Deadline
Feb 12-16	Family Day/Reading Break
Mar 14	Withdrawal Deadline
Mar 30, Apr 2	Good Friday/Easter Monday
Apr 14	Last day of classes
Apr 16-24	Final Exam Period

1. Intended Learning Outcomes
This course provides a foundation for the further study of mathematics. Topics include linear equations and inequalities; function notation; linear functions; systems of linear equations in two variables; polynomial, rational and radical expressions and equations; quadratic functions and equations; and triangle trigonometry including the Sine and Cosine Laws. [5 Credits] Source: Camosun College Calendar http://camosun.ca/learn/calendar/current/web/math.html
After completion of Math 137, students will meet the outcomes as identified in the Adult Basic Education Articulation Handbook found at
http://www2.gov.bc.ca/assets/gov/education/post-secondary-education/adult-education/2016-17_abe_guide.pdf

2. Course Materials and Support
Required Materials:
a) M.L. Bittinger, *Intermediate Algebra*, 12th Edition, Addison-Wesley, Boston, 2015 with Student Solution Manual and MyMathLab access code. Available in text or **e-text** (cheapest at the bookstore).
b) Sharp EL-531W scientific calculator – this is the only calculator allowed on tests and the exam.
c) Math 137 Course Pack, Frost
Supplementary Materials:
a) A Trig supplement is available on my website. You do not need to purchase one.
b) Videotapes and CD's covering each section of the text in the library viewing room (free-3 day loan)

Study Tips: We recommend you spend 8-12 hours per week studying outside of class time.
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 tutor on staff. See the hours posted on the math lab doors (most current) or go to to http://camosun.ca/services/help-centres/math-access.html

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/ and at the **Centre for Accessible Learning** http://camosun.ca/services/accessible-learning/.

3. Prerequisites and Exit Grade
Prerequisite(s): "B" in Applications of Math 11; or "C" in Principles of Math 10, or Foundations of Math & Pre calculus 10, or Foundations of Math 11, or Applications of Math 12, or MATH 053; or "C-" in Principles of Math 11, or Pre-calculus 11; or assessment.
Exit Grade and Course Options:
B for Math 115 C+ for Math 107 C for Math 112 or 109
Note that Math 137 cannot be used by BBA students to satisfy the UT math requirement.

4. Basis of Student Assessment (Grading)

Assignments: Online assignments are taken through MyMathLab. The deadline dates are Mondays by 11:59pm, but it is best to complete them ahead of time to allow for any glitches such as frozen computers. There are no extensions. See the last page on how to register for MyMathLab. There is also an in-class trig assignment.

Tests: There are 4 in class tests. The dates and topics are on the pacing schedule. If you miss a test for any reason (including illness, getting called into work) a zero will be assigned, unless you contact me via e-mail before the test to make alternate arrangements. All tests count.

Final Exam: The final exam is worth 50% of your mark and is based on the entire course. Do not make holiday plans until you know the time of the exam as this is not negotiable.

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

Online Assignments	10%
Tests and In-Class assignment	40%
Comprehensive Final Exam:	50%

Grade Scale:

0-49	50-59	60-64	65-69	70-72	73-76	77-79	80-84	85-89	90-100
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-&-instruction/e-1.5.pdf

Academic Integrity: The Department of Mathematics and Statistics has prepared a handout called *Student Guidelines for Academic Integrity* to help you interpret college policies involving student conduct, academic dishonesty, plagiarism, etc. It is your responsibility to become familiar with the contents of the document and the college policies it references.

Academic Progress: 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-&-instruction/e-1.1.pdf

5. Course Content

Review of Basic Algebra	**Rational Expressions, Equations, and Functions**
R.1 Set of Real Numbers	5.1 Rational Expressions,Functions: Mult./Div.
R.2 Operations with Real Numbers	5.2 LCMs, LCDs, Addition and Subtraction
R.4 Introduction to Algebraic Expressions	5.3 Division of Polynomials
R. 5 Equivalent Algebraic Expressions	5.4 Complex Rational Expressions
R. 6Simplifying Algebraic Expressions	5.5 Solving Rational Equations
Solving Linear Equations and Inequalities	5.6 Uniform Motion Applications
1.1 Solving Equations	5.7 Formulas and Applications
1.2 Formulas and Applications	5.8 Variation and Applications
1.3 Applications and Problem Solving	**Radical Expressions, Equations, and Functions**
1.4 Sets, Inequalities, and Interval Notation	R.3 Exponential Notation and Order of Operations
1.5 Intersections, Unions, and Compound Inequalities	R. 7 Properties of Exponents and Scientific Notation
1.6 Absolute-Value Equations and Inequalities	6.1 Radical Expressions and Functions
Graphs, Functions, and Applications	6.2 Rational Numbers as Exponents
2.1 Graphs of Equations	6.3 Simplifying Radical Expressions
2.2 Functions and Graphs	6.4 Addition, Subtraction, and More Multiplication
2.3 Finding Domain and Range	6.5 More on Division of Radical Expressions
2.4 Linear Functions: Graphs and Slope	6.6 Solving Radical Equations
2.5 More on Graphing Linear Equations	6.7 Applications Involving Powers and Roots
2.6 Finding Equations of Lines: Applications	6.8 The Complex Numbers
Systems of Equations	**Quadratic Equations and Functions**
3.1 Systems of Equations in Two Variables	7.1 Basics of Solving Quadratic Equations
3.2 Solving by Substitution	7.2 The Quadratic Formula
3.3 Solving by Elimination	7.3 Applications Involving Quadratic Equations
3.4a Solving Applied Problems	7.4 More on Quadratic Equations
3.7ab Systems of Inequalities in Two Variables	7.5 Graphing $f(x)=a(x-h)^2+k$
Polynomial and Polynomial Functions	7.6 Graphing $f(x)=ax^2+bx+c$
4.1 Introduction to Polynomials and Polynomial Functions	7.7 Mathematical Modeling with Quadratic Functions
4.2 Multiplication of Polynomials	
4.3 Introduction to Factoring	**Trigonometry** (in class notes and online resources)
4.4 Factoring Trinomials: x^2+bx+c	Trig functions of Acute Angles
4.5 Factoring Trinomials: ax^2+bx+c	Applications of Right Triangles
4.6 Special Factoring	Trig Functions of Any Angles
4.7 Factoring: A General Strategy	The Law of Sines
4.8 Applications of Polynomial Equations	The Law of Cosines

6. Pacing Schedule

Wk		Monday	Tuesday	Wed	Thursday	Friday
1	Jan 8-12	Intro/Review	*Review/1.1*	*1.2*	1.3	
2	Jan 15-19	1.4/1.5 *Asst Chap R*	1.6	2.1	2.2/2.3	
3	Jan 22-26	2.4 Fee deadline *Asst Chap 1*	2.5	2.6/3.1	3.2/3.3	
4	Jan 29-Feb2	3.4a/Comparing methods *Asst Chap 2*	3.7ab/4.1	4.2/4.3	**Test 1** (Chaps R, 1&2)	
5	Feb 5-9	*4.4* *Asst Chap 3*	4.5	4.6	4.7/4.8	
6	Feb 12-16	*Holiday*	Reading Break	Reading Break	Reading Break	
7	Feb 19-23	5.1 *Asst Chap 4*	5.2	5.3	**Test 2** (Chaps 3&4)	
8	Feb 26-Mar 2	5.4 *Asst Chap 5.1-5.3*	5.5	5.6	5.7/5.8	
9	Mar 5-9	6.1 *Asst Chap 5.4-5.8*	6.2	6.3	6.4/6.5	
10	Mar 12-16	6.6 *Asst Chap 6.1-6.5*	6.7/6.8	7.1 Drop deadline	**Test 3** Chap 5, 6.1-6.5	
11	Mar 19-23	7.2 *Asst Chap 6.6-6.8*	7.3	7.4	7.5	
12	Mar 26-30	7.6 *Asst Chap 7.1-7.4*	7.7	Trig	Holiday	
13	Apr 2-6	Holiday	Trig *Asst Chap 7.5-7.7*	Trig	**Test 4** Chap 6.6-6.8,Chap 7	
14	Apr 9-13	Trig	Trig In Class Asst	Trig In Class Asst	Review *Asst Trig1 and 2*	
Final Exam Period Apr 16-24						

MyMathLab

MyMathLab is an interactive website where you willl do your assignments. You can Access the full Etext,work through assignments, self-test and do practice exercises with step-by-step help to improve your math skills. MyMathLab includes multimedia learning aids, videos, animations, and live tutorial help.

Before You Begin:

To register for MyMathLab, you need: **1) MyMathLab student access code** 2) **the Course ID:** frost18186**, and 3) a valid email address**

Student Registration:

- Enter www.mymathlab.com in your web browser.
- Click on Register on the top right hand of the screen.
- Under Register, click **Student**. Then OK! Register Now.
- Enter your **Course ID: frost18186** and click **Continue.** *Your course information appears on the next page. If it does not look correct, contact your instructor to verify the Course ID.*
- Sign in or follow the instructions to create an account. Use an email address that you check and, if possible, use that same email address for your username. Read and accept the License Agreement and Privacy Policy**.**
- Click **Access Code**. Enter your **Access Code** in the boxes and click **Next**. *If you do not have an access code you can buy it at the bookstore(cheaper than using PayPal).*

You can get 14 days of free temporary access (Look for a link near the bottom of the page) to start the program now so you don't miss any assignments.

Once your registration is complete, a **Confirmation** page appears. You will also receive this information by email. Make sure you print the Confirmation page as your receipt. Remember to **write down your username and password**. You are now ready to access your resources!

Signing In:

- Go to www.mymathlab.com and click **Sign in**.
- Enter your **username** and **password** and click **Sign In**.
- On the left, click the name of your course.

The first time you enter your course from your own computer and anytime you use a new computer, click the **Installation Wizard** or **Browser Check** on the Announcements page. After completing the installation process and closing the wizard, you will be on your course home page and ready to explore your MyMathLab resources!

Need help? Contact Product Support at http://www.mymathlab.com/student-support for live CHAT, email, or phone support at 1-866-952-8628.