Mathematics 135-001
Career Algebra
Winter, 2012

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Additional Office Hours by Appointment

Important Dates:

Jan 9	First day of classes for Fall term
Jan 23	Fee Deadline
Mar 13	Withdrawal Deadline
April 16	Last day of classes for Winter term
April 16-24	Final Exam Period

1. Intended Learning Outcomes

This course provides the algebraic skills required for programs and courses including Business diploma programs, the Criminal Justice program, and elementary statistics. Topics include real numbers; integer and rational exponents; linear equations and inequalities; function notation; linear f unctions; and systems of linear equations. [3 Credits] Source: Camosun College 2011/2012 Calendar
http://camosun.ca/learn/calendar/2011/web/math.html

2. Course Materials and Support

Required Materials:
     a) Career Algebra , McCallum, Custom Edition, John Wiley and Sons, 2011. This resource includes a student solution manual.
     b) The only calculator allowed on tests and the final exam is the Sharp EL-531 scientific calculator. <u>Calculators will not be allowed on the Review Assignment and part of Test 1.</u>

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 http://camosun.ca/learn/programs/math/labs.html .

Study Tips: It is recommended that approximately 3-6 hours per week be spent studying for this course outside of class time. Find a study buddy to discuss math problems and use the math labs.

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/

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: A grade of C+ (65%) or better in Math 135 is necessary to continue into all Business Diploma programs. A grade of C or better is needed for Math 116 (Elementary Statistics).

4. Basis of Student Assessment (Grading)

Assignments: Assignment R is due on the second day of class (unless your instructor says otherwise).   The questions for Assignments 1 to 3 are from the relevant text book sections and are listed in this outline. Please submit your homework assignments in a duo-tang or file folder with your name on it. Clearly state the section number and question number eg. 1.5 # 4. Each question should be written out along with a full solution, not just the answer. Assignments are due **by noon** on the designated day (see pacing schedule) and assignment keys will be posted on the website shortly afterwards. Late assignments will NOT be accepted. All assignments count.

Tests: There are 5 tests. The dates and topics are on the pacing schedule. No calculators are allowed for part of Test 1. If you miss a test for any reason a zero will be assigned unless you make alternate arrangements with your instructor.

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

5 Assignments	20%
5 Tests:	30%
Comprehensive Final Exam:	50% or 100%*

All assignments count. If your term average is at least 50% and if your final exam mark is higher than your term mark, then your final exam will count for 100% of your final mark.

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 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 and Schedule

Section		Chap 4	Functions, Expressions and Equations
Chap 1	**Key Concepts of Algebra**	4.1	What is a Function?
1.1	Expressions	4.2	Functions and Expressions
1.2	Equations	4.3	Functions and Equations
1.3	Equivalent Expressions	4.4	Functions and Change
1.4	Equivalent Equations	4.5	Functions and Modeling
		Chap 5	**Linear Functions, Expressions, and Equations**
Chap 2	**Rules for Expressions and the Reasons for Them**	5.1	Linear Functions
2.1	Reordering and Regrouping	5.2	Working with Linear Expressions
2.2	The Distributive Law (and Common Factoring)	5.3	Solving Linear Equations
2.3	Expanding and Factoring Eg. 1 only	5.4	Equations for Lines in the Plane
2.4	Algebraic Fractions Eg. 1-5,7,8,9	5.5	Modeling with Linear Functions and Equations
		5.6	Systems of Linear Equations
Chap 3	**Rules for Equations and the Reasons for Them**	**Chap 6**	**Rules for Exponents and the Reasons for Them**
3.1	Solving Equations	6.1	Integer Powers and the Exponent Rules
3.2	Solving Inequalities omit Eg. 9c and 9d	6.2	Fractional Exponents and Radical Expressions Eg. 1-8abc
3.3	Absolute Value Equations and Inequalities (Eg. 1-6 only)	**Chap 14**	**Summation Notation (**Optional Topic)
		14.1	Using Subscripts and Sigma Notation (correction Eg.6 index should be i not k)

RECOMMENDED AND **ASSIGNMENT QUESTIONS**

CHAPTER	RECOMMENDED ODD QUESTIONS ONLY	**ASSIGNMENT QUESTIONS**	
1.1	1-9, 15-21, 27, 29, 33, 49, 51, 57	**2,16, 20, 58**	
1.2	1, 3, 9, 11, 15, 17, 27-31, 37, 43, 51, 53	**14, 42, 52,**	
1.3	1-9,15, 21, 27, 31, 35, 41	**16, 32, 34**	
1.4	1, 7, 11-17 ,21-25 ,31, 35, 37	**20,30, 64**	
1.R	1, 7, 9, 13,15, 19-23, 27, 29, 31	**14, 20, 44**	
2.1	1-25	**4, 20, 24**	
2.2	1-5, 9-19, 27, 35, 39, 41	**14, 20, 24**	
2.3	1-25	**6, 10**	
2.4	1,5,7,13,15,25,33,45,47	**2, 4, 14 ,36**	
2.R	5-11,17,19,69,71	**10, 14, 54, 56**	

3.1	1-13, 27-31	**24, 30, 32, 38**	
3.2	1-21,25	**6, 8, 18, 26**	
3.3	1-7	**4, 10, 14, 20**	
3.R	1-7	**6, 10, 18, 28, 30, 34, 34, 46**	
4.1	1-31	**8, 10, 28,**	**Assignment #2**
4.2	1, 5-15, 21,25-29	**6, 24,**	
4.3	3,7,9,13, 11-15, 23	**4, 12,14, 20**	
4.4	1, 5, 9-15, 23	**4, 10, 14**	
4.5	1-17, 21-33, 37, 39	**10, 18, 36**	
4R	1-43	**4, 20, 28, 30**	

5.1	1-13, 19-29, 33, 37, 41	**2, 14, 36**	
5.2	1-19, 23-31, 35,49, 51, 51, 55, 57	**2, 24, 48**	
5.3	1-9, 21-35, 39-43, 47-57	**2, 58**	
5.4	1, 3, 7-19, 27,33, 45,47	**8, 14, 16, 20, 48**	
5.5	1-15	**14**	**Assignment #3**
5.6	1-15, 23, 25, 31, 37, 45, 171	**6, 14, 22, 30**	
5.R	1-5, 11, 13, 21, 25-29, 55, 61, 71-89, 107,109	**56, 72, 78, 126**	
6.1	1-11, 15, 19, 25, 33, 49, 53, 61, 69, 83, 87, 97, 99	**18, 38, 54, 74**	
6.2	1-21	**8, 14, 18, 24**	
6.R	1-49	**30, 36, 46, 50**	

14	1-25	6, 10, 14, 20