



## Mathematics 135-002 Career Algebra Winter, 2015

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### Timetable:

Time \ Day	Monday	Tuesday	Wednesday	Thursday	Friday
5:20 – 6:20 pm	Office Hour		Office Hour		
6:30 – 8:20 pm	Math 135 Y211		Math 135 Y211		
Additional Office Hours by Appointment					

### 1. Important Dates:

Jan 5	First day of classes for the Winter term
Jan 19	Fee Deadline
Feb 9	Family Day Holiday- College closed
Feb 12-13	Reading Break
Mar 9	Withdrawal Deadline
Apr 3	Good Friday – College closed
Apr 6	Easter Monday – College closed
Apr 8	Last class
Apr 13 – 21	Final Exam Period

### 2. Intended Learning Outcomes

(3 credits) This course may be used for entry into business programs, the criminal justice program, elementary education, and elementary statistics. It is also a good choice for students who want to refresh their skills before tackling a higher-level mathematics course.

Topics include a brief review of fractions, decimals, percentages and signed numbers; solving linear equations and inequalities in one variable; graphing linear equations and inequalities in two variables; function notation; systems of linear equations; integer and rational exponents; and fundamental polynomial operations.

See Camosun College calendar for more information:

<http://camosun.ca/learn/calendar/current/web/math.html>

### 3. Exit Grades

A grade of C+ (65%) or better is needed for Business Programs at Interurban, Math 112, 113 or 109.

A grade of C or better is needed for Math 116 or 137.

N.B.: Math 135 cannot be used by BBA students to satisfy the UT math requirement although it can satisfy pre-requisites.

### 4. Required Materials

a) Career Algebra; Tobey, Slater, Blair, Crawford, 1st Custom Edition, Pearson, 2013.

b) The only calculators allowed on tests and the final exam are the Sharp EL-531 scientific calculator and the Texas Instruments BA II *Plus* (for students entering the Business program)

N.B.: Calculators will not be allowed on the first test.

c) All work submitted is to be neatly completed in pencil, and a ruler is required for graphing.

### 5. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

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**.

#### 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-&-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-&-instruction/e-1.1.pdf>

### 6. Basis of Student Assessment and Grading

Assignments: There are regular assignments (approximately 2/month). Assignments will be provided at least a week before the due date. Full solutions are required. Assignments are due at the beginning of class on the designated due date (see pacing schedule). Assignment keys will be posted on the D2L site. Late assignments will be penalized. There are no dropped assignments.

Tests: There are at least 4 tests. The tentative dates and topics are on the pacing schedule. No calculators are allowed for the first test. If you miss a test for any reason a zero will be assigned unless you make alternate arrangements with your instructor before the test. There are no dropped tests.

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

Assignments .....	25%
Tests.....	25%
Comprehensive Final Exam .....	50%

Grade Scale:

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

## 7. Course Content

Section §	Title	Recommended Exercise Questions (Answers in back of text)
	<i>Review Chapter of Arithmetic Skills</i>	
R.1	Simplify Fractions	11,17,19,33,41,45,47,57
R.2	Add & Subtract Fractions	3,15,19,25,37,43,53,55,73,75
R.3	Multiply & Divide Fractions	3,13,15,17,19,21,27,35,37,51,57
R.4	Decimals	5,17,23,31,35,45,51,53,75
R.5	Percent, Rounding & Estimating	5,9,15,17,27,33,35,41,43,51,61
R.6	Problem Solving	1,3,5,13,15
Test A1		
Chapter 1	<i>Real Numbers &amp; Variables</i>	
1.1	Adding Real Numbers	1,3,7,11,21,25,29,41,67,73
1.2	Subtracting Real Numbers	3,15,19,23,45,57,63
1.3	Multiply & Divide Real Numbers	3,15,19,27,35,39,47
1.4	Exponents	5,13,15,23,25,29,39,43
1.5	Order of Operations	5,9,11,15,21,25,29
1.6	Distributive Property	7,9,15,17,21,23,25,31,41
1.7	Combining Like Terms	5,11,23,27,33,35,43
1.8	Substitution	7,13,17,25,33,39,43,47,55
1.9	Grouping	1,7,9,11,13,17,25
Test 1		
Chapter 2	<i>Equations and Inequalities</i>	
2.1	Addition Principle	15,21,27,29,39,43
2.2	Multiplication Principle	3,5,9,17,31,39,45,49
2.3	Addition & Multiplication Principle Together	3,7,11,17,23,27,29,37,41,47

2.4	Equations with Fractions	1,3,9,11,15,17,21,25,31,33,41,43,45
2.5	Formulas	3,5,7,9,11,13,15,23,25,31,33,39,43
2.6	Inequalities and Compound Inequalities*	7,23,25,27,33,35,37,47,51,53,57,59, Handout*
Test 2		
Chapter 3	<i>Solving Applied Problems</i>	
3.1	Translating English to Algebraic Expressions	3,9,17,21,25,27,29
3.2	Word Problems	5,9,11,15,19,25,31
3.3	Word Problems Comparisons	1,5,9,11,15
3.4	Word Problems: Money & Percent	1,3,7,9,11,13,15,19,25
3.5	Word Problems: Geometry	7,9,13,15,23,29
3.6	Word Problems: Inequalities	3,5,7,15,17,21,23
Test 3		
Chapter 4	<i>Exponents and Variables</i>	
4.1	Rules Of Exponents	5,7,11,17,19,23,25,31,39,41,49,53, 61,65,69,73,77,81,83
4.2	Negative Exponents & Scientific Notation	1,3,5,7,9,11,13,15,17,19,25,29,35, 37,39,43,47,49,61
	Rational Exponents*	Handout
4.3	Fundamental Polynomial Operations	5,7,11,13,19,21,27,31,33
4.4	Multiply Polynomials	1,3,5,7,9,25,29,33,37,41,45,49,51
4.5	Multiply Polynomials: Special Cases	3,5,9,13,17,23,31,37,41,43
4.6	Dividing Polynomials	1,5,9,11,17,19,23
Test 4		
Chapter 5	<i>Graphing &amp; Functions</i>	
5.1	Rectangular Coordinate System	5,9,19,21,23,25,29,35,39
5.2	Graphing Linear Equations	1,3,5,13,15,17,21,23,25,27,29,33
5.3	Slope	1,3,9,11,17,19,25,29,33,37,41,47,51, 55
5.4	Write the Equation of a Line	1,3,9,11,21,23,27,31,33,37
5.5	Graph Inequalities	3,5,9,13,15,17
5.6	Functions	5,7,11,15,19,23,29,31,33,35,39,41
Test 5		
Chapter 6	<i>Systems of Equations</i>	
6.1	Solving Equations with Two Variables; Graphing	1,3,7,11,19,21,25
6.2	Solving Equations with Two Variables: Substitution	1,5,9,11,29,35
6.3	Solving Equations with Two Variables: Elimination	5,13,15,27,33,39
6.4	Review of Methods	5,11,17,21,27
6.5	Word Problems	1,5,13,15,17,21
Test 6		
	<i>Exam Review</i>	

\* Topic is not in the text but is covered in class using D2L notes

8. Pacing Schedule (tentative)

Week	Month	Monday	Wednesday	Notes
1	January	<sup>5</sup> Intro, R.1 - R.2	<sup>7</sup> R.3 - R.4	
2		<sup>12</sup> R.5 - R.6	<sup>14</sup> §1.1 - §1.3	
3		<sup>19</sup> §1.4 - §1.5	<sup>21</sup> §1.6 - §1.7	
4		<sup>26</sup> §1.8 - §1.9	<sup>28</sup> §2.1 - §2.3	
5	February	<sup>2</sup> §2.4	<sup>4</sup> §2.5	
6		<sup>9</sup> <i>No Class</i>	<sup>11</sup> §2.6	
7		<sup>16</sup> Compound Inequalities	<sup>18</sup> §3.1 - §3.2	
8		<sup>23</sup> §3.3 - §3.4	<sup>25</sup> §3.5 - §3.6	
9	March	<sup>2</sup> §4.1 - §4.2	<sup>4</sup> §4.2B	
10		<sup>9</sup> §4.3 - §4.4	<sup>11</sup> §4.5 - §4.6	
11		<sup>16</sup> §5.1 - §5.2	<sup>18</sup> §5.3 - §5.4	
12		<sup>23</sup> §6.1 - §6.2	<sup>25</sup> §6.3 - §6.4	
13	Mar/Apr	<sup>30</sup> §6.5	<sup>1</sup> Review	
14		<sup>6</sup> <i>No Class</i>	<sup>8</sup> Review	
15/16		<sup>13-21</sup> Exam Period		