## CAMOSUN

COLLEGE

## Mathematics 135002

## Career Algebra

Fall 2016

## 1. Instructor Information and Important Dates

Instructor: Gemma Cuizon
Office:
E-mail:
Website:
CBA 156 (Interurban) and Ewing 342A (Lansdowne)
cuizon@camosun.bc.ca
https://sites.google.com/site/cuizon37/
Schedule:

| Time | Monday | Tuesday | Wednesday | Thursday | Friday |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 12:20 pm-1:20 pm |  | Office Hours CBA 156 | Office Hours CBA 156 | Office Hours CBA 156 | Office Hours CBA 156 |
| 1:30 pm-3:20 pm |  | Math $135 \_002$ TB 175 | $\begin{gathered} \text { Math } \\ 135 \text { 001 } \\ \text { Port A } 103 \end{gathered}$ | $\begin{gathered} \text { Math } \\ 135-002 \\ \text { CC } 122 \end{gathered}$ | $\begin{gathered} \text { Math } \\ 135 \text { _001 } \\ \text { Port A } 102 \end{gathered}$ |
| 5:00 pm-5:30 pm |  | Office Hours E342A | Office Hours E342A | Office Hours E342A |  |
| 5:30 pm-7:50 pm |  | $\begin{gathered} \text { Math } \\ 072 / 073 \\ \text { E346 } \end{gathered}$ | $\begin{gathered} \text { Math } \\ 072 / 073 \\ \text { E348 } \end{gathered}$ | Math $072 / 073$ E346 |  |

Important Dates: September 6
September 20
October 10
November 8
November 11
December 8
December 12-20

First day of Math 135 class
Fee deadline
Thanksgiving Day - College closed
Last day to withdraw from the course or change to audit
Remembrance Day - College closed
Last day of instruction
Final Exam period (No exam on Sunday, Dec. 18)

## 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. Source: Camosun College calendar http://camosun.ca/learn/calendar/current/web/math.html

## 3. Exit Grade

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. Note that 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, $1^{\text {st }}$ Custom Edition, Pearson, 2013.
b) Calculators allowed on tests and the final exams are the Sharp EL-531 scientific calculator and the Texas Instruments BA II.
Calculators will not be allowed on the first test.

## 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 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/

## 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 4 assignments. A handout will be provided at least a week before the due date. Full solutions are required. Assignments are due by 8pm on the designated day (see pacing schedule). Assignment keys will be posted on the website right after submission deadline. Late assignments will NOT be accepted.

Tests: There are 4 tests. The dates and topics are on the pacing schedule. No calculators are allowed for Test 1. If you miss a test for any reason a zero will be assigned unless you make alternate arrangements with your instructor before the test.

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

| Assignments | $20 \%$ |
| :--- | :--- |
| Tests | $30 \%$ |
| Comprehensive Final Exam (with no calculator section) | $50 \%$ |

## Grade Scale:

| $0-49$ | $50-59$ | $60-64$ | $65-69$ | $70-72$ | $73-76$ | $77-79$ | $80-84$ | $85-89$ | $90-100$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{F}$ | $\mathbf{D}$ | $\mathbf{C}$ | $\mathbf{C}+$ | $\mathbf{B}-$ | $\mathbf{B}$ | $\mathbf{B}+$ | $\mathbf{A}-$ | $\mathbf{A}$ | $\mathbf{A}+$ |

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 and Schedule

| Section |  | Recommended Homework (Solutions in back of text) | Textbook page |
| :---: | :---: | :---: | :---: |
|  | Review Chapter of Arithmetic Skills |  |  |
| R. 1 | Simplify Fractions | 11,17,19,33,41,45,47,57 | 8 |
| R. 2 | Add And Subtract Fractions | 3,15,19,25,37,43,53,55,73,75 | 17 |
| R. 3 | Multiply And Divide Fractions | 3,13,15,17,19,21,27,35,37,51,57 | 26 |
| R. 4 | Decimals | 5,17,23,31,35,45,51,53,75 | 37 |
| R. 5 | Percent, Rounding \& Estimating | 5,9,15,17,27,33,35,41,43,51,61 | 46 |
| R. 6 | Problem Solving | 1,3,5,13,15 | 52 |
| Test 1 |  | Chapter Organizer, Review Test | 56-61 |
|  | Chapter 1 Real Numbers and Variables |  |  |
| 1.1 | Adding Real Numbers | 1,3,7,11,21,25,29,41,67,73 | 79 |
| 1.2 | Subtracting Real Numbers | 3,15,19,23,45,57,63 | 85 |
| 1.3 | Multiply \& Divide Real Numbers | 3,15,19,27,35,39,47 | 94 |
| 1.4 | Exponents | 5,13,15,23,25,29,39,43 | 100 |
| 1.5 | Order Of Operations | 5,9,11,15,21,25,29 | 104 |
| 1.6 | Distributive Property | 7,9,15,17,21,23,25,31,41 | 110 |
| 1.7 | Combining Like Terms | 5,11,23,27,33,35,43 | 115 |
| 1.8 | Substitution | 7,13,17,25,33,39,43,47,55 | 121 |
| 1.9 | Grouping | 1,7,9,11,13,17,25 | 126 |
|  |  | Chapter Organizer, Review | 129-133 |
|  | Chapter 2 Equations and Inequalities |  |  |
| 2.1 | Addition Principle | 15,21,27,29,39,43 | 147 |
| 2.2 | Multiplication Principle | 3,5,9,17,31,39,45,49 | 153 |
| 2.3 | Addition \&Multiplication Principle Together | 3,7,11,17,23,27,29,37,41,47 | 159 |
| 2.4 | Equations With Fractions | 1,3,9,11,15,17,21,25,31,33,41,43,45 | 166 |
| 2.5 | Formulas | 3,5,7,9,11,13,15,23,25,31,33,39,43 | 173 |
| 2.6 | Inequalities and Compound Inequalities* | 7,23,25,27,33,35,37,47,51,53,57,59, Handout | 184 |
| Test 2 |  | Chapter Organizer, Review | 189-193 |
|  | Chapter 3 Solving Applied Problems |  |  |
| 3.1 | Translating English To Algebraic Expressions | 3,9,17,21,25,27,29 | 207 |
| 3.2 | Word Problems | 5,9,11,15,19,25,31 | 215 |
| 3.3 | Word Problems Comparisons | 1,5,9,11,15 | 221 |
| 3.4 | Word Problems: Money \& \% | 1,3,7,9,11, 13,15,19,25 | 232 |
| 3.5 | Word Problems: Geometry | 7,9,13,15,23,29 | 241 |
| 3.6 | Word Problems: Inequalities | 3,5,7,15,17,21,23 | 248 |
|  |  | Chapter Organizer, Review | 252-258 |
|  | Chapter 4 Exponents and Variables |  |  |
| 4.1 | Rules Of Exponents | 5,7,11,17,19,23,25,31,39,41,49,53,61,65,69,73,77,81,83 | 277 |
| 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 | 285 |
|  | Rational Exponents* | Handout |  |
| 4.3 | Fundamental Polynomial Operations | 5,7,11,13,19,21,27,31,33 | 291 |
| 4.4 | Multiply Polynomials | 1,3,5,7,9,25,29,33,37,41,45,49,51 | 298 |
| 4.5 | Multiply Polynomials: Special Cases | 3,5,9,13,17,23,31,37,41,43 | 304 |
| 4.6 | Dividing Polynomials | 1,5,9,11,17,19,23 | 310 |
| Test 3 |  | Chapter Organizer, Review | 313-317 |
|  | Chapter 5 Graphing \& Functions |  |  |
| 5.1 | Rectangular Coordinate System | 5,9,19,21,23,25,29,35,39 | 332 |
| 5.2 | Graphing Linear Equations | 1,3,5,13,15,17,21,23,25,27,29,33 | 343 |
| 5.3 | Slope | 1,3,9,11,17,19,25,29,33,37,41,47,51,55 | 356 |
| 5.4 | Write the Equation of a Line | 1,3,9,911,21,23,27,31,33,37 | 363 |
| 5.5 | Graph Inequalities | 3,5,9,13,15,17 | 367 |
| 5.6 | Functions | 5,7,11,15,19,23,29,31,33,35,39,41 | 377 |


|  | Chapter 6 Systems of Equations | Chapter Organizer, Review | $382-390$ |
| :--- | :--- | :--- | :--- |
|  | Solving Equations With Two Variables; Graphing | $1,3,7,11,19,21,25$ | 406 |
| 6.1 | $1,5,9,11,29,35$ | 413 |  |
| 6.2 | Solving Equations With Two Variables: <br> Substitution | $5,13,15,27,33,39$ | 420 |
| 6.3 | Solving Equations With Two Variables: <br> Elimination | $5,11,17,21,27$ | 427 |
| 6.4 | Review of Methods | $1,5,13,15,17,21$ | 433 |
| 6.5 | Word Problems | Chapter Organizer, Review | $438-443$ |
| Test $\mathbf{4}$ |  |  |  |

## Math 135 Lectures (2 hrs) [Fall 2016]

| Sept | 5 | $\begin{array}{\|l} \hline 6 \\ \text { Intro, R.1, R. } 2 \end{array}$ | 7 | $\begin{aligned} & 8 \\ & \text { R.3, R.4, R. } 5 \end{aligned}$ | 9 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 12 | $\begin{aligned} & 13 \\ & \text { R.5, R.6, } 1.1 \end{aligned}$ | 14 | 15 <br> Assign 1 due <br> 1.2, 1.3, 1.4 | 16 |
|  | 19 | 20 <br> Review(R.1-R.6) <br> 1.4, 1.5, 1.6 <br> Reminder: Fee deadline | 21 | $22$ <br> Unit 1 Test (Ch. R) 1.6, 1.7 | 23 |
|  | 26 | $\begin{aligned} & \hline 27 \\ & 1.7,1.8,1.9 \end{aligned}$ | 28 | $\begin{aligned} & 29 \\ & 2.1,2.2,2.3 \end{aligned}$ | 30 |
| Oct | 3 | $\begin{aligned} & 4 \\ & 2.4,2.5 \end{aligned}$ | 5 | 6 <br> 2.6, Compound Inequalities (handout) | 7 |
|  | 10 <br> Thanksgiving day - College closed | 11 <br> Assign 2 due <br> 3.1, 3.2, 3.3 | 12 | 13 <br> Review(Ch.1\&2) 3.3, 3.4, 3.5 | 14 |
|  | 17 | 18 <br> Unit 2 Test <br> (Ch. 1 \& 2) <br> 3.5, 3.6 | 19 | $\begin{aligned} & 20 \\ & 3.6,4.1,4.2 \end{aligned}$ | 21 |
|  | 24 | 25 <br> Rational exponents (handout), 4.3 | 26 | $\begin{aligned} & \hline 27 \\ & 4.4,4.5 \end{aligned}$ | 28 |
| Nov | 31 | $\begin{aligned} & \hline 1 \\ & 4.6,5.1 \end{aligned}$ | 2 | $3$ <br> Assign 3 due $5.2,5.3$ | 4 |


|  | 7 | $\begin{array}{\|l\|} \hline 8 \\ \text { Review(Ch.3\&4) } \\ 5.4,5.5 \\ \text { Reminder: } \\ \text { Withdrawal deadline } \end{array}$ | 9 | 10 <br> Unit 3 Test (Ch. 3 \& 4) | 11 <br> Remembrance day - College closed |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 14 | $\begin{aligned} & \hline 15 \\ & 5.6 \end{aligned}$ | 16 | $\begin{aligned} & \hline 17 \\ & 6.1,6.2 \end{aligned}$ | 18 |
|  | 21 | $\begin{aligned} & \hline 22 \\ & 6.3,6.4 \end{aligned}$ | 23 | $\begin{aligned} & \hline 24 \\ & 6.5 \end{aligned}$ | 25 |
|  |  | 29 <br> Assign 4 due <br> Review(Ch.5\&6) | 30 | $\begin{aligned} & \hline 1 \\ & \text { Unit } 4 \text { Test } \end{aligned}$ | 2 |
| Dec | 5 | 6 <br> Final Exam Review | 7 | 8 <br> Final Exam Review | 9 |
|  | 12 <br> Final Exam Period | 13 <br> Final Exam Period | 14 <br> Final Exam Period | 15 <br> Final Exam <br> Period | 16 <br> Final Exam Period |
|  | 19 <br> Final Exam Period | 20 <br> Final Exam Period | 21 | 22 | 23 |

