Effective Fall 2011

DIVISION OF NATURAL SCIENCES AND MATHEMATICS

TIDEWATER COMMUNITY COLLEGE

VIRGINIA BEACH CAMPUS

COURSE PLAN

Course Number and Title: MTH 158-College Algebra – Online Sections

Lecture Hours: 3 Lab Hours: 0 Credit Hours: 3

Submitted by: D. Branton, D. Sinibaldi Date: 7/30//2011

Approved by: M. Kirby, C. Newsom Date: 7/30/2011
Assistants to the Dean

G. Frank Date: 7/30/2011
Academic Dean

I. COURSE DESCRIPTION

Math 158 reviews the fundamental ideas of algebra including polynomials, rational expressions, graphing, equations and inequalities, relations and functions, and systems of first degree equations and inequalities. It is designed to review and enhance the fundamental ideas and skills of algebra. It is designed for the liberal arts and education student and as a transition from developmental courses to other college credit courses.

II. PREREQUISITES:

Placement test or successful completion of MTH 4, MTE Unit or equivalent.

III. INTRODUCTION:

MTH 158 is designed to review and enhance the fundamental ideas and skills of algebra. It is designed for the liberal arts and education student and as a transition from developmental math courses to other college credit courses.

IV. INSTRUCTIONAL MATERIALS:

Textbook: Algebra for College Students, Custom Edition, by Lial, Hornsby, and McGinnis with MyMathLab (access code), 2012; ISBN 1256130116; Pearson. This is a 3-hole punch that can be placed in a notebook. **REQUIRED**

(The regular 7th edition is hardbound and is identical for the chapters we cover. The ISBN 0321760166. However, you will also need to purchase a new MyMathLab access code if you purchase this version of the book.

OR

Purchase ONLY the MyMathLab access code for this book, and use the online ebook. MyMathLab may be purchased online at www.coursecompass.com; the site includes the online version of the complete textbook.

Scientific or graphing calculator **REQUIRED**

Note: Any calculator that does algebra is not allowed and their use for any graded assignment is considered cheating. TI-83 and TI-84 are OK but TI-89 is not. Consult the teacher if in doubt. Cell phones calculators are never allowed.

V. TECHNOLOGY REQUIREMENTS

Students are required to maintain dependable access to a computer and the internet throughout the course. Students are responsible for maintaining their computer hardware, software, and internet connections. A non-working computer is not an acceptable excuse for late or unfinished assignments. If you are having computer trouble, please contact your instructor first for known problems (such as a website is down). Students should have their own back-up plan for computer problems, such as using another computer or coming to the TCC Virginia Beach Campus computer labs.

VI. MATERIAL TO BE COVERED:

Chapter 1	Omit	
Chapter 2	(omit 2.6 - 2.7)	1 week
Chapter 3		2 weeks
Chapter 4	(omit 4.2 - 4.4)	1 week

Chapter 5		2 weeks
Chapter 6		2 weeks
Chapter 7		1 ½ weeks
Chapter 8		1 ½ weeks
Chapter 9	(omit 9.1) add Supplement attached	2 ½ week
Chapter 10	(10.1 and 10.2 only)	1 week
Chapter 11	(omit 11.4 – 11.6)	1 week

VII. BASIC CONCEPTS

Chapter 1: Review of the Real Number System *Omit. Students should review as needed when the material is used in the course.*

Chapter 2: Linear Equations, Inequalities, and Applications

2.1 Linear Equations in One Variable
2.2 Formulas and Percent
2.3 Applications of Linear Equations
2.4 Further Applications of Linear Equations
2.5 Linear Inequalities in One Variable
2.6 Omit
2.7 Omit

Chapter 3: Graphs, Linear Equations, and Functions

3.1 The Rectangular Coordinate System
3.2 The Slope of a Line
3.3 Linear Equations in Two Variables
3.4 Linear Inequalities in Two Variables
3.5 Introduction to Relations and Functions
3.6 Function Notation and Linear Functions

Chapter 4: Systems of Linear Equations

4.1 Systems of Linear Equations in Two Variables
4.2 Omit
4.3 Omit
4.4 Omit

Chapter 5: Exponents, Polynomials and Polynomial Functions

5.1 Integer Exponents and Scientific Notation
5.2 Adding and Subtracting Polynomials
5.3 Polynomial Functions, Graphs, and Composition
5.4 Multiplying Polynomials
5.5 Dividing Polynomials *monomial divisors only*

Chapter 6: Factoring

6.1 Greatest Common Factor and Factoring by Grouping
6.2 Factoring Trinomials
6.3 Special Factoring
6.4 A General Approach to Factoring
6.5 Solving Equations by Factoring

Chapter 7: Rational Expressions and Functions

7.1 Rational Expressions and Functions: Multiplying and Dividing
7.2 Adding and Subtracting Rational Expressions
7.3 Complex Fractions
7.4 Equations with Rational Expressions and Graphs
7.5 Applications of Rational Expressions
7.6 Variation

Chapter 8: Roots, Radicals and Root Functions

8.1 Radical Expressions and Graphs *Domain is included.*
8.2 Rational Exponents
8.3 Simplifying Radical Expressions
8.4 Adding and Subtracting Radical Expressions
8.5 Multiplying and Dividing Radical Expressions
8.6 Solving Equations with Radicals
8.7 Complex Numbers

Chapter 9: Quadratic Equations and Inequalities

9.1 Omit
9.2 The Quadratic Formula
9.3 Equations Quadratic in Form
9.4 Formulas and Further Applications
9.5 Polynomial and Rational Inequalities
Supplement attached on domain and range of radical functions

Chapter 10: Additional Graphs of Functions and Relations

10.1 Review of Perations and Composition
Supplement of Domain and Range of Radical Functions
10.2 Graphs of Quadratic Functions
10.3 Omit
10.4 Omit
10.5 Omit

Chapter 11: Inverse, Exponential, and Logarithmic Functions

11.1 Inverse Functions
11.2 Exponential Functions
11.3 Logarithmic Functions
11.4 Omit
11.5 Omit
11.6 Omit

VIII. SUGGESTED WEEKLY SCHEDULE – 16 WEEK SEMESTER:

Week 1: 2.1, 2.2, 2.3, 2.4
Week 2: 2.5, 3.1, 3.2, 3.3, 3.4
Week 3: 3.5, 3.6, 4.1
Week 4: 5.1, 5.2, 5.3
Week 5: 5.4, 5.5, 6.1
Week 6: 6.2, 6.3, 6.4
Week 7: 6.5, **MIDTERM EXAM**

Week 8: 7.1, 7.2, 7.3, 7.4
Week 9: 7.5, 7.6, 8.1
Week 10: 8.2, 8.3, 8.4
Week 11: 8.5, 8.6, 8.7
Week 12: 9.2, 9.3, 9.4
Week 13: 9.5, 10.1, Supplement, 10.2, 11.1
Week 14: 11.2, 11.3
Week 15: **Review for FINAL EXAM--Final Exam** to be given at the scheduled exam period

The two exams must be proctored in an approved testing center.

IX. SUGGESTED WEEKLY SCHEDULE – 10 WEEK SEMESTER

Week 1: 2.1 – 2.5, 3.1
Week 2: 3.2 – 3.6
Week 3: 4.1, 5.1, 5.2, 5.3
Week 4: 5.4, 14.4, 5.5, 6.1, 6.2
Week 5: 6.3 – 6.5, **Midterm Exam**
Week 6: 7.1 – 7.5
Week 7: 7.6, 8.2 – 8.5
Week 8: 8.6, 8.7
Week 9: 9.2 - 9.5, Supplement, 10.2
Week 10: 11.1 - 11.3, **Final Exam**

X. ADDITIONAL MATERIAL AVAILABLE TO STUDENTS

TCC Student ID Required to Use these Resources

Solution Manual	Available in Math Lab

XI. EVALUATION OF STUDENTS

Each student will earn points for quizzes, homework, problem sets, exams, group projects, and Discussion Board Activities as described below. You have some flexibility when you do your own work, but each assignment will have a deadline for submission. Final grades will be determined by the point total (for example 467 earned out of 500 presently available). MML will also provide you with an on-going percent average (93.4%) which represents your current status. As assignments become available, the total points will change and so will your on-going percent average.

Cheating will not be tolerated, and the instructor will be looking for plagiarized and copied work, so please submit only your own work.

Please note that NO grades are dropped in this course.

Point Total	900 - 1000	800-899	700-799	600-699	Less than 600
Final Grade	A	B	C	D	F

Points Distribution by Assessment Type

Assessment Type	**Homework**	**Quizzes**	**Group Projects**	**Discussion Board Activities**	**Exams**	**TOTAL**
Points Earned	190	210 (14 each)	50 (25 each)	100 (10 each)	Midterm 200 Final 250	1000

Explanation of Assessments:

1. Homework

The course is contained within MyMathLab (MML) at www.coursecompass.com .
For each section/topic covered in this course, you will first open the **Chapter Contents** (*to read the instructor notes, watch a video lecture, read the interactive textbook, and view other interesting demonstrations associated with the current section(s) being covered).* After taking notes and learning the material, you would then open the **Homework** to complete a set of problems. There is a complete set of problems for each section covered. In addition, there are two homework assignments to familiarize you with answer entry. Each MML Homework problem can be completed as many times as you wish before the Quiz deadline. A minimum of 75% on the best of the homework submissions for each section is required in order to complete the corresponding quizzes. There are helps in the MML Homework, such as "Help me solve this" and "Show an example". Start the homework early, and do not wait until the quiz due date to complete required homework, as you will run out of time and not meet the deadline for either.

2. Quizzes

Fifteen quizzes are all taken online in MML, following completion of the prerequisite sections of Homework. To access a Quiz, you can either click on the word "Quizzes" (on right under My Progress) while in the **Dashboard** or you can click on the submenu **Quizzes and Tests** found under the **Tools for Success** menu button. These will not have the helps that homework exercises have. Students will only be able to complete a Quiz twice, the highest score of the two tries counts as your grade for that quiz. If you open a quiz without taking it, your grade will be zero for that quiz.

3. Group Projects

There will be two group projects that will require that grouped students complete the steps and post work in a Group Discussion Board by the given dates. It will not be necessary to be online at the same time as your partners, but you must observe the deadlines in order for everyone to complete the project. Each project is worth 25 points. (See the Math Responses Rubric under Course Documents for grading criteria.)

Each Project will be introduced and discussed using the **Discussions & Group Projects** menu item. Files necessary to complete the projects are found under **Course Documents**.

4. Discussion Board Activities

This feature of the course allows you to communicate with your classmates and the instructor in a similar manner to having classroom discussion. Ten Discussion activities, accessed through **Discussions & Group Projects**, will be used to clarify and expand on topics related to your studies. Your postings must be made within the dates stated in the Course Schedule (while the class is studying the topics of focus). Grading is based upon the Math Responses Rubric.

In addition, there are Discussion links for posting Technical Problems, Math Questions, General Course Questions, and for students to talk together.

5. Exams

The Midterm Exam (200 points) covers Chapters 2 – 6. The Final Exam (250 points) will emphasize Chapters 7 – 11, but up to 25% of that exam will be basic material found in the first half of the course such as graphing, exponent rules, et cetera. **These exams must be proctored. Students within 50 miles of the TCC Virginia Beach Campus must take their exams at the Virginia Beach Campus.** Students intending to test at the Virginia Beach Campus should email their instructor within the first 10 days of the official start of semester classes to indicate this is their testing location.

Students who are NOT within 50 miles of the Virginia Beach Campus may choose to use another Community College or University testing center as a test proctor. Internet and computer access is required for testing. Any proctoring fees incurred are the responsibility of the student. If you will need to test away from our campus, PLEASE email your instructor with the proctor's name, official title, location (college), email address, and telephone number within the first 10 days of the official start of semester classes, so appropriate arrangements can be made. ***IMPORTANT: The choice of proctor/testing center is subject to the instructor's final approval.***

If a student has not signified a testing arrangement by the deadline, he or she will be dropped from the class.

XII. COURSE METHOD

See **Blackboard** for instructions on getting started then click on **Course Introduction** in **MML** to help you get through the first week or so of class. Click on **Syllabus and Course Schedule** to view the full schedule of assignments and due dates for the semester.

Blackboard is accessed through your myTCC log-in. Access MyMathLab via first registering, using both your purchased MyMathLab access code and the instructor provided Course ID. The MML registration and log-in site is at www.coursecompass.com. Blackboard is only used as an initial point of entry to the course—until students get registered in MyMathLab. After the first few days of class, all communications and file postings will take place through MyMathLab.

The instructor reserves the right to make changes in the learning activities, due dates, and points available, etc., as necessary. Such changes will be provided to students in writing at the time of the change.

XIII. EMAIL and COMMUNICATIONS

It is required that you use your TCC email for all communications with your instructor and also as the email used to register for MyMathLab. Students are also required to keep up with email. The format for all emails should include a subject line such as "MTH 158 O**B LASTname Reason", where the stars are to be replaced by the numbers of the course. Proper online etiquette should be observed, including being careful with comments. Unacceptable "behavior" will be addressed and may result in removal from the course.

XIV. DISABILITY SERVICES

Any student with special accommodations documented by Disability Services is encouraged to contact the instructor via phone or in person, to discuss those needs.

XV. EMERGENCY CONSIDERATIONS

In the event of a bomb threat, tornado, fire, or other emergency, students and staff may be asked to evacuate the building, move to a secure location within the building, or "stand-fast" in our room. Evacuation routes for movement to an external location or to a shelter within the building are posted in the classroom. Students should review the maps and be aware of the exit route and assembly location for the building are clearly understood. If you have a disability that may require assistance during an evacuation, please let your faculty know at the end of the first class. If evacuation is necessary, please bring all your belongings with you, and stay with the class until all are accounted for and given the "all clear".