

MATH 080 ON-LINE SYLLABUS

SECTIONS 96, 97, AND 99

WINTER 2011

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OFFICE HOURS: M\ 11 am - 1 pm and 2:30 pm - 3 pm; T\ 11 am - 1 pm and 2:30 pm - 3 pm; W\ 11 am - 12 noon and 2:30 pm - 4 pm ; R\ 11 am - 1 pm and 2:30 pm - 3 pm .

If these times don't fit in with your schedule, see me and we will work something out.

COURSE DESCRIPTION: This course is intended as a developmental course for students who need to develop skills in beginning algebra topics. Topics covered include solutions of linear equations and inequalities, an introduction to graphing linear equations, polynomial operations, factoring, properties of integer exponents, and solutions to quadratic equations by factoring. Techniques of problem solving and applications are included throughout the course.

COURSE GOALS:

1. To develop in students a basic understanding of algebraic concepts, principles and methods.
2. To develop in students elementary algebraic skills necessary for success in subsequent mathematics courses and other courses requiring mathematical skills.
3. To develop in students the problem-solving skills needed to interpret, analyze and solve applied problems requiring beginning-level algebraic skills.

MAJOR CORE COURSE OBJECTIVES:

Upon successful completion of this course, students should be able to:

1. Simplify expressions using the rules of exponents, rules for combining like terms, the distributive property, and rules for order of operations.
2. Evaluate expression in one or more variables.
3. Solve linear equations, linear inequalities, literal equations, rational equations with monomial denominators, and factorable quadratic equations.
4. Solve application problems modeled by linear equations and inequalities, and factorable quadratic equations using the 5-step method.
5. Construct the graph of a linear equation in 2 variables by making a table of values, by finding the intercepts, and by using the slope-intercept form of the equation; or by recognizing the equation of a horizontal or vertical line.
6. Find the slope of a line given its graph, its equation, or 2 points on the line.
7. Find the x -intercept and y -intercept of a linear function from its graph, or its equation.
8. Add, subtract, and multiply polynomials. Divide a polynomial by a monomial.
9. Factor polynomials by factoring common factors, by grouping, by recognizing a difference of two squares and by trinomial factoring methods.
10. Simplify a rational expression with factorable numerator and denominator.

PREREQUISITES: A grade of C or better in Math 074 — Prealgebra, or a satisfactory score on the placement test. This means you should be able to work with fractions, decimals, ratio and proportions, percents, signed numbers, variable expressions, and simple algebraic equations. If you do not have these

prerequisite skills, I strongly urge you to either enroll now in Math 074 or **very quickly review this material!** Students without these skills have very little chance of passing Math 080.

In addition, students enrolled in this online section of Math 080 should be proficient computer users. You should be comfortable with word processing including cutting and pasting, able to send and receive email messages, able to read PDF files and PowerPoint files, and capable of simple installation of programs.

TEXTBOOK:

Beginning Algebra, 5th Ed., by Elayn Martin-Gay with CD, Student Solution Manual, and MyMathLab Student Access Kit (Pearson/Prentice Hall; ISBN 978-0-321-75186-7)

MyMathLab Course ID: seavitt34867

College Zip Code: 48128

CORE COURSE TOPICS:

Chapter 1 Review of Real Numbers

Section 1.4-1.7

Section 1.8 (Cover only Objective 2)

Chapter 2 Equations, Inequalities and Problem Solving

Sections 2.1 – 2.7 (Omit mixture problems in section 2.7),

Section 2.9 (Omit compound inequalities)

Chapter 3 Graphing

Sections 3.1-3.4

Section 3.5 (Cover only Objectives 1, 2, and 5)

Chapter 5 Exponents and Polynomials

Sections 5.1 – 5.5

Section 5.6 (Cover only Objective 1)

Chapter 6 Factoring Polynomials

Sections 6.1 – 6.4

Section 6.5 (Cover only Objective 1)

Integrated Review (p. 398 – 400)

Sections 6.6 – 6.7

Chapter 7 Rational Expressions & Equations

Sections 7.1

Section 7.5 (Cover only Objective 1- Examples 1, 2 3)

Section 7.6 (Cover only Objectives 1 and 2)

Note: The Integrated Review Problems found on pgs 105, 217, and 400 - 401 should be assigned in addition to the normal homework assignments

ASSISTANCE:

- If your problem is with UCompass, email them the problem using the Technical Help button in UCompass. If this is not possible, call Instructional Technology at (313) 845-9663 or email Krist Olin-Sullivan (kolin@hfcc.edu) if the trouble is with UCompass.
- Contact the toll free Customer Technical Support number 1-800-677-6337 if your problem is with MyMathLab. (The MyMathLab help line is open Monday through Friday from 9 am to 6 pm EST phone help is available on weekends.
- If you have continued computer problems, please let me know as soon as possible.

If you are having trouble with the mathematics in this class you can:

- Email me. I will respond within 24 hours during the regular work week.
- Call me (313 845-6429). If I am not in my office, leave a message with a number where you can be reached.
- Ask your classmates for assistance by posting your question to the Help! Forum in the Discussion Board section of UCompass.

If you are on campus, you can get mathematics assistance in:

- The Learning Lab, located on the second floor of the Learning Resources Building. Math instructors provide math assistance in the Lab from 9:08 AM to 2:00 PM on Monday through Thursday and 9:08 AM to 1:00 PM on Friday. They also provide math assistance on Monday and Tuesday evenings from 4:30 to 7:10 PM, Wednesday and Thursday evenings from 6:00 to 8:40 PM, and on Saturday from 11:00 AM to 1:40 PM.

In addition the lab is open for student use MTWR from 8:00 am to 8:40 pm; Friday from 8:00 am to 4:30 pm and Sat from 9:40 am to 1:40 pm. There are lots of math review sheets on various topics for students to work on so feel free to use them. These are also the times that online students may take tests in the Learning Lab.

- My office (H-120E) in the Health Careers Education Center. I am on campus Monday through Thursday, although I am often involved in meetings as well as teaching my on campus lecture classes.

COURSE ACTIVITIES: Each week you will be responsible for working through computer lessons, occasionally viewing Power Point lessons, viewing mini-lectures in MyMathLab-CourseCompass, solving homework problems from both your textbook and MyMathLab-CourseCompass, taking an on-line quiz in MyMathLab-CourseCompass, participating in threaded discussions, and emailing me some representative problems. The specific activities you are to complete are listed in the Weekly Packets for the specific weeks which are found under Course Materials in UCompass Educator. Completion of these assignments is absolutely essential in order to master the material.

Computer Lessons in MyMathLab-CourseCompass: The bulk of the instruction will be delivered through the MyMathLab-CourseCompass' software. The computer's lessons include instruction, practice problems and online quizzes. I have also included a few supplements and Power Point presentations in UCompass additional resources other than MyMathLab-CourseCompass' materials. Please note that the login for the MyMathLab's software is not the same as UCompass.

Textbook Homework Sets: Each weekly packet will list weekly homework assignments from both

MyMathLab-CourseCompass and your textbook. **The textbook homework must be completed using paper and pencil. You must write out each problem, and show all work.** You will turn in these textbook homework sets when you take tests in the Learning Lab. There will be four homework sets turned in for credit. Each of the first three homework sets is worth 10 points while the fourth homework set is worth 66 points. During the last week of the term, you will not be assigned any textbook homework. In other words, the final exam will not have a homework set turned in for credit. I will grade the first three homework sets using the Grading Guide included in each weekly packet. You will pick up your homework sets when you pick up your exam (in a file cabinet in the Learning Lab). Before you begin working the homework problems, make sure to read the Grading Guide. In order to maximize the number of points earned in a homework set, be sure to view the guide thoroughly for the correct format.

MyMathLab-CourseCompass On-line Homework: Each weekly packet will list weekly homework assignments from both MyMathLab-CourseCompass and your textbook. The **MyMathLab-CourseCompass on-line homework** will be done on the computer through MyMathLab-CourseCompass. Each section covered in the weekly packets will usually have fifteen homework problems which are graded by the computer. You may work on the problems trying to get them correct up to the due date posted for each section. The MyMathLab-CourseCompass on-line homework problems are worth 66 points. During the last week of the term, you will not be assigned any MyMathLab-CourseCompass on-line computer homework.

Discussion Board Activities: Most weeks there will be a general graded discussion question in the Discussion Board of UCompass. The other weeks will feature a group discussion project. Starting with the second week, you will be required to participate in the **Homework On-Line Activity** in the Discussion Board of UCompass at least three times over a two-week period. Participation is defined as posting two homework questions and providing one thoughtful and detailed answer to someone else's question.

Weekly Emailed Problems: Each week you will e-mail me approximately four to five problems that are representative of the week's material. You should copy each problem (using the copy/paste features on your mouse), and you must show all your work, as well as your final answer, in the body of the email message. Instead of retyping the problem, just use the copy/paste feature on your mouse. Make sure that you email using the **COURSE E-MAIL** button of UCompass. Please make sure that you always include in the Subject Line what your email is about and make sure that you sign your name at the end of your email. I do not accept attachments because of the difficulty of reading different file formats and to avoid exposure to computer viruses. These e-mail assignments are worth four to five points each. These e-mail problems are due weekly no later than 9:00 a.m. on Mondays. **Late e-mails are not accepted!** Make sure you sign your email! Otherwise, I will e-mail it back to you.

You should plan to spend at least 10 hours per week doing working through the computer lessons, reading the text, doing homework, and studying for this class. If mathematics is not your best subject, you may need to spend more time.

MyMathLab-CourseCompass Quizzes: At the end of each week, you will complete a 10 problem quiz covering the sections covered that week. Each quiz is graded by the computer. Do not attempt the quiz until you have completed the computer mini lessons, the textbook homework, the on-line homework for those sections, and the weekly email for the weekly packet. You are expected to take these quizzes on your own without help from books, notes, or people. Each on-line quiz counts as five points although the computer will register your percentage. I will convert the percent to a point system. Once you begin a quiz you have only 60 minutes to finish it in **one** sitting, so be sure to turn off your cell phone so no one interrupts you. **You can do the textbook problems in any order and change any answers. Don't forget to click the Submit button after**

completing the quiz. If you do poorly on a quiz, you may take it a second time, and the highest score count. The deadline for each weekly quiz is no later than 9:00 a.m. on a specific Monday. If you do poorly on a quiz, you may take it a second time, and the highest score will count. You must complete the quiz prior to the test on those lessons. Uncompleted quizzes will receive a score of zero points.

Each Quiz is worth 5 points. Your highest Quiz score will be assigned point values according to the following:

$$\text{Quiz Percentage} * 5 / 100 = \text{number of points for the quiz.}$$

Thus 90% = $90 * 5 / 100 = 4.5$ points, 84% = $84 * 5 / 100 = 4.2$ points, 75% = $75 * 5 / 100 = 3.75$ points, 47% = $47 * 5 / 100 = 2.35$ points, etc.

Tests and Final Exam: You will have to come to campus to take three one-hour tests and a comprehensive final exam. All tests will be given in the Learning Lab, located on the second floor of the Learning Resources Building. You will have a Monday through Saturday window to take each test. When you come to take a test, bring the following items to the Learning Lab: picture ID, pencil, paper, homework set, eraser, and a calculator, except for the first test. I will record all missed tests as zeros. For the final exam which will last two hours, you will be given only five days, Monday through Friday. Please note that the Learning Lab is open MTWR from 8:00 am to 8:40 pm, Friday from 8:00 am to 4:30 pm and Saturday from 9:40 am to 4:00 pm.

Below are the **dates** of the **3 exams plus the final exam** which will be taken **on campus** in the Learning Lab.

Exam 1 Monday, February 7 through Saturday, February 12

Exam 2 Monday, March 21 through Saturday, March 26

Exam 3 Monday, April 18 through Saturday, April 23

Final Monday, May 2 through Friday, May 6

GRADING: You can earn a maximum of 787 points over the course of the semester. Your grade is based on what percent of these points you actually earn.

Test 1 (Sections 1.4-1.8, 2.1-2.7, and 2.9)	100 points
Test 2 (Sections 3.1-3.5 and 5.1-5.6 (in 5.6 covering only Objective #1))	100 points
Test 3 (Sections 6.1-6.7 and 7.1)	100 points
14 Quizzes (Each 5 points)	70 points
14 Weekly E-mailed Problems (Each 4 or 5 points)	63 points
Online Discussions*	55 points
4 Textbook Homework Sets (The first three sets are each 10 points while the fourth is worth 3 points)	33 points
MyMathLab-Course Compass On-line Homework Problems	66 points
Final Exam	200 points

***General graded discussion questions are worth 2 points and group discussion projects are worth 8 points. You will receive up to a maximum of 4 points for each posting to the Homework On-line Activity which is where you ask questions about homework problems and answer other students' homework questions. Please note that each student must ask two questions and answer one question.**

every two weeks to get the full 4 points for this activity.

I will use the following percentage scale for grading all your exams and for computing your course grade:

100 – 90 = A

80 – 89 = B

70 – 79 = C

60 – 69 = D

Below 60 = E

I do not drop any test grades, but I will use your final exam grade in the place of your lowest test score, assuming that results in an overall improvement of your grade.

ATTENDANCE AND DROPPING: Of course, I won't be taking daily attendance, but if I see no evidence of activity on your part (such as working on the computer lessons, responding to discussion questions, or sending homework problems by email) for a week I will email you. If after a second week, I still do not hear from you, I will drop you from the computer database, and you will have to contact me to be reinstated. I urge you to keep up with the course work. It is extremely difficult to catch up once you start to fall behind!

Any student can initiate a course drop through Thursday, March 31, 2011. After that date, you do not have my permission to drop the class or else you will get an "E". If you take the Final Exam, you will not receive a DR grade and will be given an "E".

ACADEMIC DISHONESTY: College Board Policy #8500: "... It shall be the policy of the College that the determination of the fact of academic dishonesty by a student shall be a matter of individual judgment by the instructor. The instructor may administer a penalty up to, and including, failure in a particular course ..."

Instructor Policy: CHEATING IN ANY FORM WILL RESULT IN FAILURE OF THE CLASS
The same penalty will be applied to any student who permits someone to copy from his/her test/copy paper. Calculators may NOT be shared by students during exams/quizzes. If this occurs, it counts as cheating along with using your calculator on the non-calculator part of a test/quiz. All cell phones must be kept in closed purses/bookbags during exams and quizzes and must be turned off.

SUGGESTIONS FOR STUDYING MATHEMATICS: The strategy needed for studying mathematics is different than that needed for other subjects. Study skills classes focus on classes that emphasize reading, note-taking and memorization, but for the most part, do not discuss classes in the technical areas, such as mathematics or physics, which emphasize problem solving. These guidelines provide a study approach that can be specifically applied to mathematics.

1. As you are working through the computer lessons, focus on the method that is being explained. Copy these rules and related examples. Don't try to write down everything the computer says. Unlike in humanities or social science classes, you will not be asked to write a lot of detailed information in essay format. Rather, in this class you will be asked to utilize concepts and techniques to solve problems. Your approach to note-taking should be based on this objective.
2. Always ask questions when and as soon as you are confused. Learning mathematics is cumulative. Each new technique builds on the material that preceded it. Usually, if you do

understand the first concept, you will not understand most or all of what follows. This is not necessarily true in most social sciences and humanities courses, with the possible exception of foreign languages.

3. **Do the homework problems!** Unlike most humanities course, mathematics does not require reading or memorization. It requires learning skills that emphasize reasoning and problem solving. You must practice math to become proficient in it. Learning math is much like learning to play tennis. If you simply watch the professionals play tennis, you are not going to develop a strong serve? The same is true for math. Just "watching" the computer or someone else solve problems does not mean that you will be able to do so. You must practice solving problems on your own at home.
4. **Before you attempt a homework assignment, you should review your notes and text.** Go over examples that were done in the computer lesson or in the text and make sure you understand them before you start the homework problems. Try to relate the homework problems to the examples from your notes or the text.
5. **Stay current in the class.** While it is unwise to "cram" for any subject, in mathematics, it is virtually impossible to cram because there is such a strong emphasis on sequential understanding. So keep to the schedule for the course. In fact, many students who keep up to date find that they only need to study minimally before an exam. A quick review of their completed homework assignments usually suffices to refresh their memories.
6. **Do not feel embarrassed or frustrated if you get stuck. Please contact me for help! Don't wait until it is too late!**
7. **Many students struggle with mathematics. If you are one of them, you should realize you are not alone.** Many students are returning to school after being away for many years and have forgotten the math they learned in the past. Others may never have learned the material that they now need to master. Although you may feel frustrated at times, do not give up. Stay up to date, ask for help if you need it, and have confidence in yourself. Be an active learner. By the end of the semester, you may even conclude that, when approached properly, studying math can be a rewarding experience.