

MAT 092 INTRODUCTORY ALGEBRA SYLLABUS ACADEMIC SYSTEMS PARADISE VALLEY COMMUNITY COLLEGE SUMMER 2008

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TEXT & MATERIALS FEE: Text to be given out by instructor. The course materials fee is to be paid for at the cashier's office. This section is Computer-based individualized instruction, and requires a \$5.00 computer fee. A non-refundable license fee of \$120 is to be paid in order to use the Academic Systems program. A headset (Walkman type) and calculator is required.

OTHER RESORCES:

Learning Support Center (LSC) Building E, Room 180
Hours: M-R 8:00 AM – 7:00 PM
Drop-in and individual Tutoring

COURSE DESCRIPTION:

Linear behavior; linear equations and inequalities in one and two variables; graphs; systems of equations in two variables; function notation, graphs, and data tables; operations on polynomials; properties of exponents; applications. Prerequisites: Grade of "C" or better in MAT082, or MAT102, or equivalent, or satisfactory score on District Placement exam. This course is taught using the concept of mediated learning. It is a highly interactive course and you will spend much of your time in front of a computer in class or at home, with your PAN, notebook and paper and pencil. Your instructor will circulate to provide individual attention to you should you need it. On most days there will be a mini-lecture/discussion at the beginning of class on certain math topics and/or on course techniques/issues/announcements. There are scheduled lab hours outside of class that you are strongly encouraged to attend. Instructor and LSC instructional help will also be provided for you.

COURSE COMPETENCIES:

At the end of the course, the student will be able to:

- Solve linear equations.
- Graph linear functions given data tables or an equation.
- Determine and interpret the domain and range of a function given its graph.
- Determine and interpret the slope and intercepts of a linear equation or function.
- Determine and explain the relationship between the slopes of perpendicular and parallel lines.
- Given sufficient information or data, write a linear equation.
- Use function notation to represent and evaluate linear relationships.
- Solve linear inequalities and graph solutions on the real number line and on the coordinate plane.
- Solve linear systems in two variables by graphing, substitution, and elimination methods.
- Simplify polynomial expressions.
- Perform operations on polynomials (add, subtract, multiply, divide, powers).
- Model and solve real-world problems using linear equations, proportions and systems of linear equations.

PVCC MATHEMATICS/COMPUTER SCIENCE DIVISION EXPECTED

STUDENT BEHAVIOR FOR SUCCESS

- As a college student you need to discipline yourself as to your study habits and classroom behavior. Get to class at least a couple of minutes early. You are expected to at least be on time for each class and remain seated for the entire class. If you must leave early, it is considered only common courtesy to leave quietly and to have informed your instructor beforehand. Please leave beepers and cell phones off. Inattentiveness, disruptiveness or extensive tardies/absences may affect a student's grade.
- If for some reason you decide to drop this course, you are advised to discuss it first with your instructor. If you are having difficulties, please see your instructor before giving up or dropping the class. You will be dropped for non-attendance or excessive absences. Excessive absences will be considered, missing the equivalent of 2 weeks without instructor knowledge or prior approval. A grade of W will be assigned if you are dropped before 7/18/2008. If you drop after that date your drop grade will reflect your status at that time, you will get a W if you are passing and a Y if you are failing.
- Undergraduate study is time consuming. You can anticipate spending two or more hours of study, reading and research for every hour you spend in the classroom. To earn three hours of academic credit, classes must meet for a minimum of forty-five (45) classroom hours. Take these demands seriously as you plan your academic schedule.
- Have your homework completed before class starts. Please feel free to contact me whenever you run into difficulty, and make use of the LSC.
- Have questions ready from the previous night's homework and be seated when class begins.
- Continuously self test.
- Make it a goal to attend all classes and stay the entire class period. There is a high correlation between regular class attendance, punctuality, and good grades. Even though you are absent for any reason, you are still responsible for all homework and material covered in class. Get notes from another student for classes missed.
- Ask questions – participate, don't wait for someone else to ask questions.
- Be prepared as if you expect a quiz every day.
- It is the student's responsibility to understand and follow all of the policies found in the College Catalog and Student Handbook.
- The student is responsible for all information contained in the syllabus.
- Make note of Article III, Section B, paragraph 15, page 171 in the PVCC Student Handbook regarding the college's policy on the misuse of computer technology.
- Make note of the college's policy on Academic Misconduct Section 2.3.11 found on pages 149 through 150.
- Students with disabilities who believe that they need accommodations in this class are encouraged to contact the Disability Resource Center in the Gina Kranitz Student Center, Room 119 or call 602-787-7170

ALL PROVISIONS IN THIS SYLLABUS ARE SUBJECT TO REVISION BY THE INSTRUCTOR. SUCH REVISIONS, IF ANY, WILL BE ANNOUNCED IN CLASS AND POSTED ON THE INSTRUCTOR'S WEBSITE AT THE FOLLOWING ADDRESS:

<http://www2.pvc.maricopa.edu/~nicoloff/changes.html>

CLASS ATTENDANCE:

Class attendance and punctuality is required !! Read the PVCC school catalog carefully to become familiar with policies on withdrawals and incompletes. Attendance begins on the first scheduled day of class. **THERE WILL BE NO MAKE-UP TESTS. STUDENTS MUST BE PRESENT ON TEST DAYS.**

ASSIGNMENTS:

Assignments will be given on a daily basis and are required. They will be worth 100 pts. toward the final grade. The assignments will consist of the problems in your PAN, and the Evaluate on the computer. Do these homework problems and on line quiz only after you have done the Explain and Apply on the computer and in the PAN! There are 20 assignments, worth 100 points toward the final homework grade. Homework will be collected at the beginning of class on the day it is due.

TESTING:

There will be three tests, worth 150 pts. each and a final exam worth 200 pts. **Note: There will be no make-up for in-class tests or the final exam!!**

GRADING:

Tests	450	A=90-100%	675-750 pts
PAN / Homework	100	B=89-89%	600-674 pts
Final Exam	200	C=70-79%	525-599 pts
Total	750	D=60-69%	450-524 pts

COURSE SCHEDULE

DATE OF CLASS MEETING	SECTIONS TO BE COVERED	TOPICS TO BE COVERED	ASSIGN # DUE DATE
(M) 7/7	Introduction 1.1	Introduction Real Numbers	#1 7/8
(T) 7/8	1.2 1.3	Factoring and Fraction Arithmetic of Numbers	#2 7/9 #3 7/9
(W) 7/9	2.1 2.2	Algebraic Expressions Solving Linear Equations	#4 7/10 #5 7/10
(R) 7/10	2.2 2.3	Solving Linear Equations Problem Solving	#5 7/14 #6 7/15

(M) 7/14	2.3 2.4	Problem Solving Linear Inequalities	#6 7/15 #7 7/15
(T) 7/15	6.1 REVIEW	Exponents REVIEW	#8 7/17
(W) 7/16	6.2 Test I	Polynomial Operations I TEST I (1 & 2)	#9 7/17
(R) 7/17	6.3	Polynomial Operations II	#10 7/21
(F) 7/18	LAST DAY TO WITHDRAW WITHOUT INSTRUCTOR'S SIGNATURE		
(M) 7/21	3.1	Introduction to Graphing	#11 7/22
(T) 7/22	4.1	Graphing Equations	#12 7/23
(W) 7/23	4.2	The Equation of a Line	#13 7/24
(R) 7/24	4.3	Graphing Inequalities	#14 7/28
(M) 7/28	5.1 Review	Solving Linear Systems Review	#15 7/30
(T) 7/29	TEST II 5.2	TEST II (3, 4 & 6) Problem Solving	#16 7/30
(T) 7/29	LAST DAY TO WITHDRAW WITH INSTRUCTOR'S SIGNATURE		
(W) 7/30	8.3	Equations with Fractions	#17 7/31
(R) 7/31	11.1	Functions	#18 8/4
(M) 8/4	7.1 Review	Factoring Polynomials I Review	#19 8/6
(T) 8/5	TEST III 7.2	TEST III (8, 5, & 11) Factoring Polynomials II	#20 8/6
(W) 8/6	REVIEW	Review	
(R) 8/7	Final Exam	FINAL EXAM (Comprehensive)	7:00AM-9:10 AM

Reminders That Lead to Student Success

- Remember this is not a self-paced class in the sense that there is no schedule to follow!! There is a schedule and certain benchmarks (test dates, etc.) to be followed. You are encouraged to work ahead only if your quizzes and homework indicate success and mastery of the algebra. Falling behind will require a conference with your instructor
- Suggested order of study:
Overview (but don't take the pretest), then do the first lesson in *Explain* followed by the same lesson in *Apply*. Then go back to the next lesson in *Explain* followed by the same lesson in *Apply*. Repeat this until you have done all of the *Apply* and *Explain*. Then do *Explore*. (It's not in every lesson), followed by your *Homework* (odd and selected even problems in your PAN). After you have completed the homework, then take the *Evaluate* on the computer.

- The schedule does require you to spend time outside of class as in any math class. Outside of class, you are expected to study your in-class notes, do the Homework and Apply problems in your PAN on the lesson(s) you are working on, do the Practice test in the PAN on the lesson(s) you are working on, collaborate with classmates, seek help in the LSC if necessary, see the instructor during office hours if needed, read through the *Overview*, *Explain*, and *Explore* (optional) sections in your PAN for the next lesson, STUDY for your tests, and use the computer lab during our designated lab hours.
- You have 3 chances to take the *Evaluate* (the on-line quiz) for each section studied. Take the quiz once after you have completed the *Explain*, *Apply* and *Explore* on the computer, and after you have completed the homework. Take the quiz the second time before the test on that particular lesson, and use the 3rd attempt before the final.
- Daily class attendance is a MUST!
- Bring paper, pencil, notebook, PAN, headset, and calculator to class every day.
- Remember to use the special features of mediated learning:
 1. the Helpline(click on Red Phone)
 2. take a Closer Look(click on magnifying glass)
 3. the Glossary(click on underlined words)
 4. Link to Explain
 5. the Expression Editor
- There are review CD's available on arithmetic skills and operations with integers . Please see the instructor/lab assistant if you wish to use these disks.
- If you are not using your headset(sound) with a lesson, turning the audio OFF under the OPTIONS menu at the top of your screen will speed up the display of your lesson.
- To leave the learning lesson for the day, under the FILE menu at the top of your screen, select QUIT. You will also select QUIT from your homework window.

STUDENT INFORMATION/SYLLABUS ACKNOWLEDGEMENT FORM

Course Prefix & Number _____ Semester _____

Lecture Section Number _____ Today's Date _____

Name (print) _____ Phone # (_____) - _____

e-mail address _____ 4 Digit Personal ID # _____

Previous Math courses	High School	College	Final grade

Why are you taking this course? What is it about this course that you need for your degree program?

What are you going to do to succeed in this class? (*ie*: When are you going to do your homework? Will you join a study group? Will you attend every class?)

What would you like me to do to help you succeed in this class?

Other comments:

SYLLABUS ACKNOWLEDGMENT/RECEIPT

I have received a copy of the syllabus for this course, and the instructor has discussed the contents of the syllabus. I have read the syllabus and understand the course content, class procedures, and what is expected of me in this class.

Student Signature