

WEST VIRGINIA UNIVERSITY AT PARKERSBURG

MATH 022–INTERMEDIATE ALGEBRA SYLLABUS- Fall 09- 1538

Instructor: Tom Riddle

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Text: Introductory and Intermediate Algebra for College Students; Robert Blitzer; 3rd edition, Pearson Prentice Hall, 2009

Office Hours: I have no office on Campus but will meet with any Student who needs help. Contact me in or after class (I will remain until all students have left), by phone or by email. I will attempt to answer email every day but do not assume an appointment has been made if I have not sent a verification by return email.

Course Description: This course is a continuation of Math 021. Subjects include linear and quadratic equations and inequalities; graphs; algebraic fractions; 2x2 and 3x3 systems of linear equations; and complex numbers. Course Assignments are in the attached matrix course topics are:

Chapter	Section	Topic
4	1	Solving systems of linear equations by graphing
	2	Solving systems of linear equations by substitution
	3	Solving systems of linear equations by addition
	4	Problem solving using systems of equations
	5	Solving systems of linear equations in three variables
6	1	The greatest common factor and factoring by grouping
	2	Factoring trinomials whose leading coefficient is 1
	3	Factoring trinomials whose leading coefficient is not 1
	4	Factoring special forms
	5	A general factoring strategy
	6	Solving quadratic equations by factoring
7	1	Rational expressions and their simplification
	2	Multiplying and Dividing Rational Expressions
	3	Adding and Subtracting Rational Expressions same denom
	4	Adding and Subtracting Rational Expressions different denominator
	5	Complex Rational Expressions
	6	Solving rational Expressions
	7	Applications using Rational Equations and Proportions
	8	Modeling Using Variation
8	1	Introduction to Functions
	2	Graphs of Functions
	3	The Algebra of Functions
	4	Composite and Inverse Functions
9	1	Linear Inequalities
	2	Compound Inequalities
	3	Equations and inequalities involving absolute value
	4	Linear inequalities in 2 variables
10	1	Radical expressions and functions
	2	Rational exponents

10	3	Multiplying and simplifying radical expressions
	4	Adding, subtracting, and dividing radical expressions
	5	Multiplying with more than one term and rationalizing denominators
	6	Radical equations
	7	Complex numbers
11	1	The square root property; completing the square; distance formula; midpoint formula
	2	The quadratic formula
	3	Quadratic functions and their graphs
	4	Equation quadratic in form
	5	Polynomial and rational inequalities

Homework: I will check homework every class and I will give a quiz each class period based on the homework assigned for that class period. You should plan on at least 2.5 hours of outside study for every class period. Homework is assigned in the attached matrix. Two copies are provided, detach one and put in a safe place if you lose the original. Section titles and numbers are shown in the table at the end of this syllabus. You are assigned to read the chapters that will be covered in class. You should come to class ready to ask questions on any homework problem you were unable to solve. An opportunity to ask questions on the homework will be provided before each quiz.

Grades: I will base grades on a combination of quizzes, homework, tests, and the comprehensive final. I will use class participation to decide whether to upgrade an average that is less than one percentage point from the next break point. Class participation includes answering questions and doing board problems. I will attempt to give you a few minutes to do board problems at your desk before asking you to come to the board. Usually I will ask you to do board problems in groups of 2. I will help you if you have a problem. Articulating your answer to your peers is an important part of your math education and is a course requirement. There will be 22 quizzes worth 6 points each and I will drop the three lowest quiz scores for a total of 114 points. I will not issue a makeup quiz. If you miss a class the missed quiz will be one of your low grades. I give partial credit for work shown, be sure to take the time to show all steps in your thought process. If it is a word problem a sketch is required and will be part of the grade. I do not give partial credit if work is not shown. I will ask you to display your homework at the beginning of each class. If you have attempted each problem you will receive 6 points. If not no points will be awarded. If you miss class I will accept the homework at and only at the first class you are present at. I will not review your homework for credit after the due date.

There will be three tests worth 100 points each and the final will combine a test of chapter 11 with a comprehensive final is worth 300 pts.

Event	Points
quizzes	114
homework	132
Test I	100
Test II	100
Test III	100
Final	300
Total	846

Grades will be based on total points. Letter grades will be awarded on the following basis

A	90-100% of total points	822-740
B	80-89% of total points	739-658
C	70-79% of total points	657-575
D	60-69% of total points	574-493
F	0-59% of total points	492-0

Students may bring one handwritten (no mechanically produced, printed, or photocopied sheets allowed) notes sheet to all tests and quizzes. The notes sheet can be written on one side only, the other side must be blank. Sheet can be no larger than 8.5x11 inches. Sheet must be the student's own work. Two 8.5x11 inch note pages front and back are allowed for the final.

Make up of missed classes. Attendance is important. Work or illness may make attendance occasionally impossible. Students should identify a study buddy to take notes for them if they are going to miss. You are responsible for the material if you miss. Regular exams may be made up with a good reason. I will attempt to make them of equal difficulty but difficulty is a relative thing so it may be harder for any one individual. It will be totally different than the original. There will be no benefit from "learning what is on the exam". Math is cumulative and difficult to make up, make every effort to not miss class. I reserve the right to modify the assignment sheet at any time. If you miss be sure to ask your study buddy if that occurred.

Extra Help. Math is extremely difficult if you get behind. If you don't understand topics ask for help early. I will come to class early or stay late to provide individual help if necessary. Coordinate by phone or in person in class. If regular help is needed you should use the tutoring service in the learning center.

Code of Student Conduct. Honesty and integrity is non-negotiable. See WVU-Ps student handbook section on Code of Student Conduct. You can work together to study or on homework. If you do so, make sure both names are on the work. All tests and quizzes must be your own work.

Cell Phones: Put your cell phones on vibrate or turn off. Don't text in class. Don't text during quizzes or tests.

Calculator: You must have a graphing calculator. The college requires you to have a TI-83 or TI 84 series calculator. That is the type I will demonstrate in class and is required for all higher math courses here. There will be a bonus question on each test that will require the TI-83 or 84 calculator.

Class and Final Time:

Call No	Course	Normal Meeting Day	Normal Meeting Start	Normal Meeting Stop	Final
1538	Intermediate Algebra-Math 022	Monday-Wednesday	4:00PM	6:05PM	<u>Wednesday</u> <u>4:00-</u> <u>6:00PM</u> <u>1314</u>

Do not miss the final. If you miss call me immediately. I have a very short window to submit grades (often no more than 24 hours) and once I do I can't offer a make-up.

Learning Center Services

The Learning Center is located in room 0404 and services are offered to students free of charge, Monday through Friday. Peer tutoring is open for scheduled and group sessions as well as unscheduled drop-in sessions. Students can visit the Learning Center's website for more information. http://www.wvup.edu/Learning_Center/.

Campus Safety

Upon activation of the building fire alarm, all building occupants must exit to a position of a minimum of 100 ft. safely away from the building. If you will require assistance during an emergency evacuation, please contact the instructor so that arrangements can be made in advance. All students are encouraged to familiarize themselves with the locations of emergency exits. Information concerning emergency exits is posted by or in each classroom. Students and instructors should also be familiar with the Color Code System and the Emergency Call buttons (College Paging System) that are located in each room on the main campus. Information regarding the system and instructions for each individual emergency can be found in the Safety Plan, accessible only on campus through the college website or by contacting faculty, staff, or administration. Questions regarding safety can be directed to the safety committee through the campus safety website at <http://www.wvup.edu/safety/>.

Last Day to Withdraw From Courses for Spring 2009

13 Nov 2009

Last Day to Apply to Graduate in December

Friday, September 25

Disability Statement

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Disability Services (424-8378).

Social Justice Statement

West Virginia University at Parkersburg is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, please advise me and make appropriate arrangements with the Office of Disability Services (424-8378).

Class Schedule: The following schedule is tentative. I reserve the right to speed up or slow down as needed. I will confirm the next class assignments at the conclusion of each class.

Class Date	Reading/Lecture/ Not Homework	Assignment/Due this date
24-Aug	6.1,6.2	
26-Aug	6.3,6.4	6.1-1,3,5,9,11,13,15,19,23,37,41,49,51,53,61,67,75,79,81,89 6.2-1,5,9,13,17,21,31,41,43,47,51,65,67,71,77,
31-Aug	6.5,6.6	6.3-1,5,9,19,25,57,41,47,59,65,69,79,87,95, 6.4-1,3,5,9,13,17,21,23,25,27,29,41,43,45,47,49,51,63,67,71,73,75,77,79,81,83,85,89,99
2-Sep	7.1,7.2	6.5-1,3,5,7,15,21,25,39,47,49,65,67,69,71,107,109 6.6-1,3,5,7,9,11,13,15,21,25,35,43,49,51,57,59,61,67,69,71
7-Sep	Labor Day	
9-Sep	7.3,7.4	7.1-1,3,5,7,9,12,14,15,17,21,23,25,29,35,39,43,45,47,53,59,61,63,69,73,77,83,85 7.1 additional assignment (syllabus) 7.2-1,3,7,11,13,15,19,21,23,25,27,33,35,39,43,45,47,49,51,53,55,59,63,65,69,73,
14-Sep	7.5,7.6	7.3-1,3,5,7,11,15,17,21,23,25,31,35,39,41,43,45,51,55,61,65,73 7.4-1,3,5,9,10,11,14,17,19,21,23,25,27,29,31,33,35,39,43,45,51,55,59,63,69,75,79,83,93,97,99
16-Sep	7.7,7.8	7.5-1,3,5,7,9,11,13,15,17,19,21,23,24,25,26,27,29,31,33,35,37,41,50, 7.5 Additional assignment (syllabus) 7.6-1,3,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,37,41,45,47,49,53,57,69,71
21-Sep	review-test 1	7.7-1,2,3,5,11,13,15,17,19,21,23,25,31, 7.8-1,3,5,7,9,11,13,15,17,19,21,22,23,24,27
23-Sep	review 3, 4.1	None
28-Sep	4.2,4.3	3.1-1,9--3.2-9,11,13,15,19,21--3.3-1,3,5,23,27--3.4-1,3,5,13,15,27,29--3.5-1,3,5 4.1-1,3,5,11,13,15,21,25,29,43,51,
30-Sep	4.4	4.2-1,3,5,7,9,11,13,15,17,27,31,33,39,41, 4.3-1,3,5,7,9,11,12,14,15,19,29,31,45,47,65,
5-Oct	4.5	4.4-1,3,7,13,29,35,37,39,41,43,45,
7-Oct	8.1,8.2	4.5-1,3,5,7,9,11,13,15,17,19,21,23,27,35,
12-Oct	8.3,8.4	8.1-1,3,5,7,9,11,13,15,17,19,21,23,27,29,31, 8.2-1,3,5,7,9,11,13,14,15,17,19,21,23,27,27,29,31,33,35,36,37,38,39,40,41,43,45,47 8.2 Additional Sheet
14-Oct	review-test 2	8.3-1,3,4,5,7,9,11,13,15,17,19,21,23,29,31,33,37,41,50,51,61 8.4 additional Exercise
	18 Oct midterm grades	8.4-1,3,5,7,9,11,13,14,15,17,19,21,23,25,27,29,30,31,33,35,37,39,41,43,45,47,49,61
19-Oct	9.1,9.2	
21-Oct	9.3	9.1-1,3,5,7,9,11,12,13,15,17,19,21,23,25,27,29,31,33,35,37,45 9.2-1,3,5,7,9,11,12,13,14,15,16,17,18,19,20,21,22,23,25,27,29,31,33,34, 9.2-35,36,37,39,40,41,42,43,45,47,55,57,59,69,
26-Oct	9.4	9.3-1,3,5,6,7,8,9,11,12,13,14,15,16,19,20,21,22,23,25,27,28,29,31,33,35,39,40,41,42,43,45,47, 9.3-49,50,51,53,55,57,59,61,63,65,67,69,75,77,83,91
28-Oct	chpt 5 rev,10.1	9.4-1,3,5,7,9,11,13,15,17,21,23,25,27,29,31,33,35,37,39,41,43,45,47,59,61
2-Nov	10.2	5.2-1,3,5,9,11,13,15,17,19,29--5.5-1,3,5,11,13,15,31,37,39,41 5.7-1,3,5,7,13,15,17,29,31 10.1-1,3,5,7,9,11,13,15,19,21,22,23,25,27,29,31,33,35,37,39,43,45,47,49,51,53,55,57,59 10.1-63,67,71,75,77,79,83,87,101
4-Nov	10.3,10.4	10.2-1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,23,27,31, 10.2-35,39,41,43,45,47,49,51,53,125,
9-Nov	10.5,10.6	10.3-1,2,3,4,5,6,7,8,9,10,11,13,15,17,19,21,23,25,33,35,39,41,43,45,47,49,55,57,59,61, 10.3-65,69,75,77,79,91 10.4-1,3,5,7,9,11,13,15,19,22,25,29,31,35,39,43,45,47,49,53,55,59,61,64,65,67,86
11-Nov	10.7	10.5-1,2,3,4,5,6,7,8,9,10,11,13,15,17,21,25,29,33,39,40,41,42,43,44,45,49,53,65,67,69,75,77 10.5-79,81,83,85,87,89,91,93,95,117 --10.6-1,3,5,7,9,11,15,19,23,27,33,39,51,53,
16-Nov	review-test 3	10.7-1,3,5,7,9,11,13,15,16,17,19,21,23,25,27,29,31,33,37,41,43,47,51,55,63,65,67,71,75 10.7-79,83,85,89,91,99,101,115
18-Nov	11.1	None
23-Nov	Thanksgiving	
25-Nov	Thanksgiving	
30-Nov	11.2,11.3	11.1-1,2,3,4,5,7,9,11,13,15,17,19,23,25,27,29,31,33,35,37,39,41,43,45,47,49,53,55,57,63,65 11.1-69,73,77,81,83,85,87,89,111
2-Dec	11.4,11.5	11.2-1,3,5,7,9,11,13,15,17,19,20,21,22,23,24,25,26,27,29,31,33,47,48,49,50,51,53,57,73, 11.3-1,3,5,7,9,11,13,15,17,19,21,23,27,31,35,37,39,41,43,45,49,51,53,55,57,
7-Dec	review Chapter 11	11.4-1,3,4,5,7,9,11,13,15,17,19,21,23,25,27,29,31,33,35,39,47, 11.5-1,3,5,7,9,11,13,15,17,19,21,23,25,31,41,43,45,47,49,71
9-Dec	review for Final	Final Review HW.
	11 dec last day of classes	
Final		
5894	4:00-6:00	Wednesday 16 Dec 09 4-6PM normal classroom 1314
	21 Dec 8am grades due	