

Merritt College
Mathematics 203
Code: 43364, 4 units

Intermediate Algebra

Fall 2013

Instructor: Shawn McDougal
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Office Hour: Tuesday 4:30-5:30, D187

Holidays affecting our class meetings: 11/28/2013 (Thanksgiving)

Class Meeting Days/Times: Tuesday and Thursday, 6 p.m. – 8:15 p.m.

Location: D 233

Prerequisites: Math 201 or 210D or placement through assessment

Textbook: Intermediate Algebra for College Students,
by Allen R. Angel and Dennis C. Runde,
Pearson Education, Inc (Prentice Hall),
8th edition, 2011 (ISBN–13:978 – 0 – 321– 62091 – 0)

Materials: A scientific calculator, a ruler, and graph paper will be needed.

Catalog Description:

Intermediate algebraic operations: Real number properties and operations; solutions and graphs of linear equations in one and two variables; absolute value equations; advanced factoring; complex numbers; quadratic equations and systems of quadratic equations; conics; determinants; solutions and graphs of first-degree, quadratic, and rational inequalities; exponential and logarithmic functions; and sequences and series. (Meets AA/AS area 4b.)

Class format

Our typical class will be a mix of lectures clarifying and expanding upon the points raised in the book, hands-on problem solving sessions, examples and open discussion. I will often ask you to talk to your through the problems or ideas with other students. Talking through your ideas with others is a good way to 1) test and refine your ideas, 2) learn multiple ways of thinking about a concept or solving a problem, and 3) learn how to put the ideas in your own words.

On average, every day we will cover about 2 sections from the book. Bring your book to class as we will be using it a lot.

Every day you are expected to come to class having *already read* the sections to be covered in class that day. You are *not* expected to understand everything you read the very first time--that is the point of coming to class!--but you will understand the lectures much better if you come to class with initial ideas and questions about the material.

Self-intros

Every day for the first few weeks of the course, 4 students will get a chance to briefly introduce themselves to the class. "Briefly" meaning like 30 seconds. This will allow all of us to get to know a bit about each other. Include something answering one of the following "questions":

- One experience I had after age 13 that really shaped who I am or how I think.
- Something a lot of people who meet me wouldn't guess about me.
- If I could change one thing about society, what would it be?

Grading allotment

Homework 30%

Quizzes 49%

Final Exam 21%

Grading Scale for Course

A: 90% - 100 %, B: 75% - 89%, C: 65% - 74%, D: 55% - 64%. F: Below 55%

Homework

Homework (HW) will be due almost every day. There will be 30 HWs in total. There are no make-up or late HWs. I will typically collect HW at the beginning of class. I will generally assign the next day's HW in class. If you miss class and need to know the assignment, or need to turn in HW but can't come to class, I encourage you to ask for help from another student. I encourage you to collaborate with each other on the HW assignments. Still, you must write up your own solutions.

Each HW will be graded according to completeness, on the following 2 point scale:

2 points--75%+ of the problems done

1 point--50-75% complete

0 points--less than half the problems done

The HW grades will be scaled so that each is worth 1 point out of the 100 points in the course. Therefore, the HW will be worth 30×1 points = 30% of your grade.

Make sure your HW is stapled or clipped together. Illegible HW will not be graded and thus will not count. Show your work on the problems, as appropriate. If the answers are simply copied down, then they will not be counted.

Quizzes

There will be quizzes every two weeks, almost always on Thursday. (If there needs to be a change in scheduling I will let you know well in advance.) Each quiz is worth 7 points. There will be about 8 quizzes altogether. I will drop your lowest quiz score, so your top 7 quizzes will be counted. Altogether, the quizzes are worth 7×7 points = 49% of your grade. There are no make-up quizzes.

Final Exam

The final exam is scheduled for Tuesday, December 10th in class. It will cover all the material of the course. It will be worth 21% of your grade.

Course Objectives:

The student will:

1. Learn properties of real numbers and operations with real numbers.
2. Use the laws of exponents to simplify expressions containing exponents.
3. Solve first degree and quadratic equations and inequalities.
4. Solve equations and inequalities containing absolute values.
5. Graph linear functions and find an equation of the line.
6. Learn the algebra of functions.
7. Solve systems of linear equations in two or three variables.
8. Factor, simplify and perform arithmetic operations on polynomial expressions.
9. Solve polynomial equations.

10. Simplify rational expressions and solve equations with rational expressions.
11. Simplify expressions that contain radical expressions and solve equations involving radical expressions.
12. Learn complex numbers and perform arithmetic operations of complex numbers.
13. Learn and solve exponential and logarithmic functions.
14. Learn properties of logarithms.
15. Solve application problems involving the above concepts of algebra.
16. Identify and graph conic sections.
17. Learn sequences and series.

Weekly Schedule

Week of Tuesday...	Sections to be covered (tentative)	Notes
8/19	1.2-1.5	
8/27	1.6-2.3	Quiz 1
9/3	2.4-2.6	
9/10	3.1-3.4	Quiz 2
9/17	3.5-4.1	
9/24	4.2-4.6 (skip 4.5)	Quiz 3
10/1	4.1-5.4	
10/8	5.5-5.8	Quiz 4
10/15	6.1.-6.4	
10/22	6.5-7.2	Quiz 5
10/29	7.3-7.6	
11/5	7.7-8.3	Quiz 6
11/12	8.4-9.1	
11/19	9.2-9.5	Quiz 7
11/26 (no class 11/28)	9.6-10.3	
12/3	11.1-11.3	Quiz 8+Review for Final
12/10 Final Exam		

Attendance:

You may be dropped if you are absent during the first week of classes. If you decide to stop attending, it is your responsibility to drop the class before the last drop date or a grade of F may be given.

Academic Honesty Policy

Any evidence of cheating on an exam or quiz will result in a score of zero (0), and may incur further penalties. Cheating includes but is not limited to bringing notes or written or electronic materials into an exam or quiz, copying off of another person's exam or quiz, allowing someone to copy off of your exam or quiz, and having someone take an exam or quiz for you.

General Information/Expectations:

1. **Please turn off your cell phones** during class.
2. It is your responsibility to officially withdraw from a course at the Admissions and Records Office.
3. For all exams and the final, you must have your ID.
4. Free drop-in tutoring is available through the Learning Center (D 187, phone:(510) 436 – 2442).
5. Disabled Student Programs & Services (R 109, (510) 436–2429) and Extended Opportunity Programs & Services (R 109, (510) 436–2474) are available for qualified students.
6. Please read the Merritt College Catalog 2011-2013 (http://www.merritt.edu/sites/default/files/merrittcatalog2011-13r_1.pdf), page 21– page 22, “Enrollment Policies and Procedures” including “Attendance Policies” and page 61 – page 85, “District and College Policies” including “Student Conduct, Discipline, and Due Process Rights.”