



Math 89 – 5123
Intermediate Algebra Essentials
ONLINE (Sierra 223)

Instructor: Jim Michelena

Office: Sierra Hall 231

Course web page: <http://www.mymathlab.com>

Office Hours: M–Th 9:40 am – 10:10 am; T and Th 11:30 am – 12:30 pm; other hours can be scheduled

Scientific Calculators will be needed for this course. (The library may have some that you can loan)

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Course Description

Math 89 is a course that will present many algebraic concepts. We will cover the following topics: linear, quadratic, exponential, and logarithmic functions and equations; complex numbers; solving systems of equations; conic sections; series and sequences.

In this online course you will watch lectures online that were recorded during a previous semester. You will attend the introduction session on January 9th, 2017 from 11:55 am to 1 pm in Sierra Hall, room 223. On February 6th, March 8th, and April 12th, you will meet me from 11:55 am to 1:00 pm in Sierra Hall, room 223 to take exams over the material covered in the online lectures. Lastly on April 26th, you will take the final exam from 10:00 am to 12:50 pm in Sierra Hall, room 223.

Textbook and other materials

- Elementary & Intermediate Algebra: Concepts and Applications by Marvin Bittinger, David Ellenbogen, and Barbara Johnson; 6th edition, Pearson
- MyMathLab student access code

Prerequisite

A grade of a “C” or better in Math 29, Math 30, or Math 70; or placement through the MJC assessment process.

Grades

The point spread will be as follows:

Homework and Notes - 15%, Quizzes - 15%, Exams - 45%, Final Exam - 25%

Course Grade

If you receive greater than or equal to 89.5%, you will receive an A. If you receive greater than or equal to 79.5% you will receive at least a B. If you receive greater than or equal to 69.5%, you will receive at least a C. If you receive greater than or equal to 59.5%, you will receive at least a D. Otherwise you may receive an F.

Homework and Notes

Homework will be assigned daily online and will have a due date. Late homework **WILL NOT** be accepted. It is your responsibility to understand the homework that is assigned online. If you do not do the homework, you may not be very successful in this class. Homework is an **essential** component of your learning in this course. Notes taken from the online lectures will be graded on the days of our in-class exams.

Quizzes

We will have many online quizzes throughout the term. Each quiz will be assigned online intermittently throughout the term to test your skills on the concepts we are covering in the lectures and homework. **NO** make-ups will be given.

Exams

There will be three exams given in class during the term. These exams will be completed in class and will contain the materials covered in the lectures, homework, quizzes, and in the book. If you cannot attend the class on the day of an exam it is **your responsibility** to notify me in advance. Otherwise, there will be no make-up exams.

Final Exam

If you do not take the final exam, you will not receive a passing grade. The final exam will be a cumulative exam, which is scheduled for Wednesday, April 26th from 10:00 am to 12:50 pm.

Extra Notes

1. If a student cheats on an assignment, he/she will be given a zero on it and notification will be sent to the Dean of SME and the Director of Student Success.
2. The quizzes and exams will be completed without books, notes, cell phones, and other people unless I tell the whole class that they can use any of these materials.
3. If a cell phone goes off during class, the student will need to talk to me after class. So turn them off or put them in silent mode when you enter the classroom.
4. I will be taking roll every day. If you miss more than three class sessions, you will be strongly recommended not to return to class. It is your responsibility to drop the class.
5. If you miss class during the first two weeks or do not log onto the MyMathLab software during the first week, you may be dropped from the class.
6. If you have a disability or any problems taking notes or tests, notify me right away.

Course Learning Outcomes:

Students successfully completing MATH 89 should be prepared to:

1. Analyze and solve level appropriate problems including: multivariate systems, functions and relations, and related applications.
2. Effectively communicate, using appropriate mathematical notation, processes and strategies in solving level appropriate problems including: multivariate systems, functions and relations, and related applications.

Required Learning Goals (SLOs)

Upon satisfactory completion of this course, the student will be able to:

1. Graph lines and find the equation of a line, given sufficient information.
2. Effectively use function notation to describe mathematical relationships.
3. Determine the domain and range of a given function.
4. Given a relation between two variables, determine if the relation is a function.
5. Graph linear, quadratic, absolute value, and simple cubic functions.
6. Solve systems of linear equations in two or three variables.
7. Solve linear, quadratic, absolute value, and rational inequalities.
8. Solve quadratic equations with real and complex solutions by completing the square and using the quadratic formula.
9. Graph quadratic functions by determining and using the vertex and stretching constant.
10. Add, subtract, multiply, and divide complex numbers.
11. Convert radicals to rational exponents and vice versa.
12. Add, subtract, multiple, divide, or compose two given functions.
13. Find the inverse of a given function.
14. Graph exponential and logarithmic functions using transformations.
15. Solve exponential and logarithmic equations.

16. Simplify expressions using the properties of logarithms.
17. Identify the equations for and sketch the graphs of conic sections.
18. List a requisite number of terms of a given arithmetic, geometric, or recursive sequence.
19. Determine the general term of a given arithmetic or geometric sequence.
20. Determine the sum of a fixed number of terms of an arithmetic or geometric series, and determine the sum of an infinite geometric series when it exists.

Important Dates

Start Date: 01/09/2017

Refund Date: 01/22/2017

Drop without 'W' Date: 01/22/2017

Pass No Pass Date: 02/07/2017

Last Day to Drop Date: 04/03/2017

End Date: 04/29/2017

Disclaimer: The instructor reserves the right to make any adjustments necessary in the operations of this course that in his judgment are warranted to better meet the students.

Schedule

Monday	Tuesday	Wednesday	Thursday
1/9 R.1, R.2	1/10 R.3, R.4	1/11 R.5	1/12 R.6
1/16 NO SCHOOL	1/17 7.1	1/18 7.2, 7.3	1/19 Chapter 7 Supplement
1/23 Supplement, 7.4	1/24 7.5	1/25 8.1	1/26 8.2, 8.3
1/30 8.3, 8.4	1/31 8.4	2/1 8.5	2/2 Review
2/6 Exam #1	2/7 9.1, 9.2	2/8 9.3	2/9 9.4
2/13 10.1, 10.2	2/14 10.2	2/15 10.3, 10.4	2/16 10.4
2/20 NO SCHOOL	2/21 10.5	2/22 10.6, 10.7	2/23 10.8
2/27 11.1, 11.2	2/28 11.2, 11.3	3/1 11.4, 11.6	3/2 11.6, 11.7
3/6 11.8, 11.9	3/7 Review	3/8 Exam #2	3/9 12.1
3/13 12.1, 12.2	3/14 12.2	3/15 12.3	3/16 12.3, 12.4
3/20 12.4	3/21 12.5	3/22 12.6	3/23 12.7
3/27 13.1	3/28 13.2, 13.3	3/29 13.3	3/30 14.1
4/3 14.1, 14.2	4/4 14.2, 14.3	4/5 14.3	4/6 14.4
4/10 Review	4/11 Review	4/12 Exam #3	4/13 Review
4/17 Review	4/18 Review	4/19 Review	4/20 Review