

Math 131.40 Course Syllabus (Fall 2016)

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MyMathLab Website:	www.mymathlab.com
MyMathLab Course ID:	reder34651
Office Hours:	Mon & Wed, 11am to 1pm, or by appointment
Course Hours:	Mon & Wed, 9am to 10:50am

Required Materials: MyMathLab Student Access, coursepack, LARGE 3-ring binder, LARGE eraser, pencils, TI-84 Calculator **strongly recommended** (Note: TI-83's cannot run the newest operating system, which puts students using them at a big disadvantage, all notes and instructions will assume a TI-84)

Please note: Access to a computer with Internet is required for this section of Math 131. We will be doing homework, projects, and possibly some quizzes online, outside of class. College computers can be used to satisfy these requirements.

Optional Materials: Textbook (*Elementary and Intermediate Algebra: Functions and Authentic Applications, 2nd edition*, Author: Jay Lehmann, Publisher: Prentice Hall – this text is available for rent in the JC bookstore), graph paper, ruler, highlighters

Course Description: This course emphasizes simplifying expressions, solving equations, and graphing functions, including linear, quadratic, polynomial, rational, radical, exponential and logarithmic. Problem solving and mathematical modeling are integrated throughout. Appropriate technology includes a graphing calculator. The mathematics department recommends the prerequisite not be more than two years old. If the prerequisite is more than two years old the recommendation is the course placement assessment be taken or the prerequisite be retaken to ensure the success of the student. Prerequisite: A 2.0 in MAT 039 or course placement by exam.

Math 131 Core Course Objectives: Students successfully completing Math 131 should be able to:

1. Simplify Algebraic expressions involving polynomial, rational, radical, exponential, and logarithmic functions.
2. Solve equations, inequalities, and systems of equations and inequalities.
3. For functions described algebraically or graphically:
 - a. evaluate, find domain and range, find inverse
 - b. perform algebraic operations and graphical translations
4. Solve application problems, including the ability to:
 - a. represent a situation using a graph, table or equation
 - b. forecast outcomes from above representations
 - c. solve optimization problems
5. Use appropriate technology as part of their completing the objectives above.
6. Demonstrate knowledge of current technology and/or scientific issues.

Math 131 General Education Outcomes: GEO 3 – Demonstrate Computational Skills and Mathematical Reasoning

Course Requirements:

Grading Information: A 2.0 or "C" is a passing grade. Only courses with passing grades count toward graduation. Other colleges transfer in only courses with passing grades. Many financial aid sources, including most employers, require passing grades. Additionally, earning less than a 2.0 in a class results in being unable to participate in the next level of courses in a discipline which requires this course as a pre-requisite. Registering for the next course sequence without passing the pre-requisite course may result in you being dropped from that class.

<u>Grading Scale:</u>		<u>Grading Policy:</u>
90 -100%	4.0	
85 - 89%	3.5	Online MML Homework: 25%
80 - 84%	3.0	Exam 1 (Reviews 1 and 2): 15%
75 - 79%	2.5	Exam 2 (Exponential and Logarithmic Functions): 15%
70 - 74%	2.0	Exam 3 (Review 3 and Rational Functions): 15%
65 - 69%	1.5	Project: 10%
60 - 64%	1.0	Cumulative Final: 20%
50 - 59%	0.5	
0-49%	0.0	

Online Homework:

- These assignments must be done outside of class time on a computer with internet access at MyMathLab (reachable through <http://www.mymathlab.com>).
- Homework will be due every week, as announced in class, usually every Monday. You can also check MyMathLab for particular due dates.
- You have an unlimited number of tries to do the homework before you submit it (up until the due date). Thus, all of your homework should receive full credit, if you keep trying until you get a perfect score.
- There are videos available on <http://www.youtube.com/user/tuckeyalanaj> to help you navigate completing homework assignments, using the help features, and more.

In-Class Work, Quizzes, etc.: There will be in-class assignments (turned in for credit). These may be individual or group assignments, closed or open notes at the instructor's discretion. There may also be additional quizzes posted on MyMathLab for students to take outside of class. Students that are absent may not make up the missed in-class assignments.

Project: There will be one mandatory project in the course. It will be done entirely outside of class and will require the use of a computer, the Internet, YouTube, and Excel. You can use school computers to complete the project, if necessary.

Exams: Each exam will include a standard formula sheet given by the instructor. The final exam is cumulative for the entire course. Exams **may not be made up** except under extreme, well-documented

circumstances. Final decisions as to whether a make-up exam will be allowed rest solely with the instructor, so contact him **immediately** if there is a problem. Make-up tests must be taken within two weeks of the original exam date or a zero will be given for that exam. The Final Exam is during the last week of the course and can NOT be taken early so do **NOT** schedule travel plans during that week or you will receive a **ZERO** on the final.

Intermediate Grading: To comply with college policy and federal regulations you will receive three intermediate grades during the semester. The grades assigned are letters with the following meanings:

- **V:** Verifies that you are participating and your work so far has been acceptable
- **H:** Means that you are participating, but your work shows that you may require Help in order to complete the class successfully. If you receive an H grade, you will be contacted by the Center for Student Success (located in Potter Center, Federer C) and offered tutoring services.
- **Q:** Means that you have quit participating in the course. If you receive a Q grade, you will automatically be withdrawn from the course. A Q grade is normally assigned if you have not submitted work (classwork, exams, participation, etc.) for two weeks and have not contacted your instructor regarding your absences.

Important Dates: Be sure to check out the JC Academic Calendar for Project Success Day, Holidays with no classes, last day to withdraw, etc. at <https://www.jccmi.edu/academics/academic-calendar/>

Extra Credit Policy: There will be no opportunities for extra credit. Your grade is based on your performance in class, not on extras.

Absence Policy: Students are expected to attend all class meetings, arriving on time, and staying until the end. If absence is unavoidable the **student is responsible** for obtaining the missed lecture notes and continuing work on the homework. Please remember that office hours are not a replacement for class time. Furthermore, absent students are still responsible for completing and submitting the worksheets they missed. Students must go to MyMathLab, click on "Worksheets", download and print off the appropriate worksheets missed, complete them, and submit them at the start of the next class they attend. They will not be accepted any later than this and this is the only late work that will be accepted.

Incompletes Policy: (Excerpt from JC Policy) "A student may request an incomplete from the instructor. The incomplete will be granted only if the student can provide documentation that his or her work up to that point is sufficient in quality, but lacking in quantity, due to circumstances beyond the student's control. Furthermore, a written plan for making up the missing work within one semester must be completed by the student. Final determination of whether an incomplete will be given is the instructor's decision."

Academic Honesty Policy: You are *encouraged* to talk to each other, but all your work must be your own. In other words, "group-work" is a great way to learn material, but anything you submit for a grade must be done by you - reflecting your own thought processes, not that of someone else. If I suspect you of academic dishonesty, I will follow JC's Academic Honesty Policy and take appropriate action up to and including assigning a **failing grade** for the paper, project, report, exam, or the course itself (whichever I deem necessary). The policy can be seen here:

<http://www.jccmi.edu/policies/Academics/Policies/1004.pdf>

Classroom Behavior Policy: *"We know what a person thinks not when he tells us what he thinks, but by his actions."* - Issac B. Singer

1. Be Responsible: for your work, for your learning, for your behavior in class, etc.

The online homework and take-home quizzes in particular are going to require great levels responsibility on your part. You will need to stay on top of your schedule and your life to make sure that all coursework is done in a timely fashion.

2. Be Respectful: of other students, of the instructor, of the material, of yourself...

Turn OFF your cell phones and pagers, no tobacco (including chewing tobacco), come on time, stay the full time, be prepared to answer questions and work together.

Where to Get Help...

Office Hours: Office hours are there for you to come get help. Please come see me if you need questions answered. Remember, though, that office hours are not a replacement for attending class.

Center for Student Success: The Center for Student Success has tutoring available for free to students enrolled in Math 131. You can get help with take-home work, MyMathLab homework, and more. The Center is located in Bert Walker Hall. Their phone number is 517-796-8415

YouTube Videos: The lead faculty, Alana Tuckey, has created a number of videos showing how to use the TI-83/84 calculator in this course. There are also some old lectures available which may be helpful for different sections of notes. Go to: <http://www.youtube.com/user/tuckeyalanaj> and check out any 131 playlists.

MyMathLab: There are videos, extra problems, sample exams, lecture notes, PowerPoint lectures and more available in MyMathLab. It's a great resource! In particular, the **Study Plan** in MyMathLab can help with studying for exams as it gives you unlimited extra problems to do for practice.

Exam Reviews: These are in the coursepack. Make sure you complete them!!

Each Other: Get a regular study group. Write down names and numbers of your peers and call on each other when needed!

Math 131: Tentative Course Schedule		
Day	Sections	Topics
9/7	R1.1-R1.4	Classification of Numbers; Roman Numerals; Number Basics; Mathematical Notation
9/12	R1.5-R1.8	Exponents and Square Roots; Order of Operations, Opposites, and Absolute Values; Linear Equations; Formulas
9/14	R1.9; R2.1-R2.3	Linear Inequalities and Interval Notation; Scattergrams; Linear Models; Graphing Equations of the Form $y=mx+b$
9/19	R2.4-R2.7	Slope of a Line; Using Slope to Graph Linear Equations; Finding Linear Equations; Finding and Using Linear Models;
9/21	R2.8-R2.11	Linear Regression Models and R^2 ; Solving Systems fo Equations; Value, Interest, and Mixture Problems; Functions, Domain and Range
9/26	R2.12, Review for Exam 1	Function Notation; Review
9/28	Exam 1	Exam 1: Reviews 1 and 2
10/3	10.1-10.2	Integer Exponents; Rational Exponents
10/5	10.3-10.4	Graphing and Finding Exponential Functions
10/10	10.5-11.2	Finding Exponential Functions to Model Data; Inverse Functions
10/12	11.3-11.4	Logarithmic Functions; Properties of Logarithms
10/17	11.5-11.6	Power Property; More Properties of Logarithms
10/19	11.7, Review for Exam 2	Natural Logarithms, Exam 2 Review
10/24	Exam 2	Exam 2: Exponential and Logarithmic Functions
10/26	R3.1-R3.3	Simplifying Polynomials; Factoring Polynomials; Solving Polynomials with Factoring;
10/31	R3.4-R3.6	Graphing Quadratic Functions; Vertex of a Quadratic Function; Simplifying Radical Expressions;
11/2	R3.7-R3.8	Solving Quadratic Equations with Square Root and Quadratic Formula
11/7	R3.9-R3-10	Finding Quadratic Models; Regression Recap
11/9	12.1-12.2,	Domains of Rational Functions; Simplifying Rational Expressions; Multiplying and Dividing Rational Expressions
11/14	12.R1-12.R2	Unit Conversion; Medical Conversion
11/16	12.3, 12.5 - Part 1	Adding and Subtracting Rational Expressions; Solving Rational Equations
11/21	12.5 - Part 2; 12.7-12.8	Applications of Rational Equations; Proportions, Similar Triangles; Variation
11/28	Exam 3 Review	Exam 3 Review
11/30	Exam 3	Exam 2: Quadratic Review and Rational Function
12/5	13.1-13.2	Simplifying Radical Expressions; Adding, Subtracting, and Multiplying Radical Expressions
12/7	13.3-13.4	Rationalizing Denominators; Graphing Radical Equations
12/12	13.5-13.6	Solving Radical Equations; Modeling with Square Root Functions
12/14	Quiz Ch 13; Review for Final	Quiz: Radical Functions
12/19	Review for Final Exam	
12/21	Final Exam	All Chapters and Reviews

NOTE!! This schedule is subject to change as the course progresses. To know exactly what was covered, you must attend class!