MTH 141-81 Winter 2018 Syllabus

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MyMathLab Website:	www.mymathlab.com
MyMathLab Course ID:	fogarty35425
Class Time/Location:	TTh 7:55-10:13 AM, LeTarte Center, Room 14
Office Hours:	Before and after class and by appointment

Required Materials: MyMathLab Student Access, MAT 141 Coursepack, LARGE 3-ring binder, LARGE eraser, pencils, TI-84 Plus Calculator

Please note: **Access to a computer with Internet is required for this section of Math 141.** We will be doing homework online.

Course Description: Major emphasis is on the concept of functions. The students will study polynomial, rational, exponential, logarithmic, trigonometric and inverse trigonometric functions, their properties, graphs, and related equations and applications. Additional topics include systems of equations, matrices, and conic sections.

Prerequisite: MAT 139 with 2.0 minimum grade or equivalent

Please note: In order to be successful, you must receive a grade of at least 2.0 in Math 141 in order to enroll in a subsequent math course, if Math 141 is a prerequisite to that subsequent course.

Math 133 Corse Course Objectives: Students will be able to:

1. Simplify polynomial, radical, and rational expressions, and algebraic expressions involving radicals, integer exponents, rational exponents, trigonometric functions, combinations, permutations, factorials, series, sequences, and matrices using appropriate algebraic properties, algebraic skills, and algorithmic processes.

2. Use appropriate algorithmic processes (this includes processes that involve matrices) to solve:
   - linear, absolute value, quadratic, radical, rational, exponential, and logarithmic equations
   - linear, absolute value, polynomial, and rational inequalities
   - linear and nonlinear systems of equations
   - trigonometric and inverse trigonometric equations

3. Manipulate and identify functions graphically, symbolically, and numerically.

4. Solve application problems involving many different subject areas using algebraic processes, counting techniques, and the binomial theorem.

5 . Apply fundamentals of right triangle trigonometry and solve application problems.

6. Use appropriate technology (such as a graphing calculator) to enhance the understanding of objectives.

7. Have an awareness of the historical background of topics covered in the course.

***Math 133 Associate Degree Outcomes*:** All courses at Jackson Community College address one or more of the institutionally defined Associate Degree Outcomes (ADOs). Math 133 contributes to the following outcomes.

ADO 1: Write clearly, concisely and intelligibly (3 credits)
ADO 2: Speak clearly, concisely and intelligibly
ADO 3: Demonstrate computational skills and mathematical reasoning (3-5 credits)
ADO 4: Demonstrate scientific reasoning (4-5 credits)
ADO 5: Understand human behavior and social systems the principles which govern them, and their implications for the present and future (3-4 credits)
ADO 6: Understand aesthetic experience and artistic creativity (3 credits)
ADO 7: Think critically
ADO 8: Make responsible decisions in personal and professional contexts
ADO 9: Work productively with others, recognizing individual contributions to group success
ADO 10: Understand and respect the diversity and interdependence of the world's peoples and cultures

MATH 141 addresses two of these Associate Degree Outcomes:
ADO 3: Demonstrate computational skills and mathematical reasoning
ADO 7: Think critically

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.

Grading Scale:		Grading Policy:
90 -100%	**4.0**	
85 - 89%	**3.5**	
80 - 84%	**3.0**	**Online Homework: 20%**
75 - 79%	**2.5**	**Exams (4): 45%**
70 - 75%	**2.0**	**Take Home Assignments: 10%**
65 - 69%	**1.5**	**Final Exam (Cumulative): 25%**
60 - 64%	**1.0**	
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).
- There is a homework assignment for each section in the course.
- Homework will be due on the day of the exam the homework covers. You can check MyMathLab and the schedule for particular exam 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.

Projects: There are two mandatory projects (hand-in assignments, really) in the course. These are done entirely outside of class and may require the use of a computer and the internet. You can use school computers to complete the project, if necessary.

Exams: Due to the nature of the course, every exam will have questions that relate to previous exams. The final exam is cumulative for the whole 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 me immediately if there is a problem. You will be allowed a page (8.5 by 11, front and back) of notes for each exam of your own creation. All previous note sheets may be used on the final exam. **All exams, except exam 1 (done on MML), will be completed in class on paper.**

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. We do a variety of in-class activities involving other students and group participation and therefore cannot be made up outside of class for any reason. If absence is unavoidable the **student is responsible** for obtaining the missed lecture notes from another student (or by watching the online YouTube lecture videos). Please remember that office hours are not a replacement for class time.

Important Dates: Be sure to check out the JCC Academic Calendar for Project Success Day, Holidays with no classes, last day to withdraw, etc. at http://www.jccmi.edu/academics/academic_calendar.htm

Incompletes Policy: (Excerpt from JCC 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."

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 125 Bert Walker Hall) 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.

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 JCC'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 is 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, no chewing tobacco, come on time, stay the full time, be prepared to answer questions, and **no texting**!

Where to Get Help…

Office Hours: Office hours are there for you to come get help. Please come and 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 141. You can get help with take-home work, MyMathLab homework, and more. The Center is located in Bert Walker Hall Room 125. There are tutors available on a limited basis at the Hillsdale Center. Ask at the office for information.

MyMathLab: There are videos, extra problems, sample exams, lecture notes, PowerPoint lectures and more available in MyMathLab. It's a great resource!

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

Name:	Contact Info:	Availability:

MTH 141-81 Winter 2018
Tentative Course Schedule

Day	Sections	Topic
1/16		Course Introduction
	R.1-R.5	Class is responsible for this information. Instructor will not go over in detail in class. Material will be on first exam.
	1.1-1.6	Review of Linear functions: Graphs, Equations, Inequalities, modeling
1/18	2.1-2.3	Functions: Graphical Features; Algebra of Functions; Function Composition
1/23	2.4, 3.5	Graphs of Functions: Symmetry and Transformations. Absolute Value Functions: Equations, Inequalities, graphs, modeling
1/25	3.1-3.3, 4.6	***Exam 1 Review: Chapters R.1-R.5, 1, 2, and 3.5*** Quadratic Functions: Equations, Graphs, Modeling
1/30		***Exam 1: Chapters R.1-R.5, 1, 2, 3.5***
2/1	4.1-4.2	Higher Order Polynomial Functions and Graphs
2/6	4.3-4.4	Finding All Real and Complex Zero's of Polynomials
2/8	R.6, 3.4, 4.6	Simplifying Rational Functions, Solving Rational Equations and Inequalities
2/13	4.5, R.7	Graphing Rational Functions, Simplifying Radical Functions
2/15	3.4,5.1	Solving Radical Equations and Graphing Radical Functions; Inverse Functions
2/20	5.2-5.3	Exponential Functions; Logarithmic Functions
2/22	5.3-5.4	Logarithmic Functions; Simplifying Logarithms; Properties of Logarithms
2/27	5.5-5.6	Solving Exponential and Logarithmic Equations, Applications, Modeling
3/1	6.1	***Exam 2 Review: Chapters R.6-R.7, 3, 4, and 5*** Introduction to Trigonometric Functions
3/6		***Exam 2: Chapter R.6-R.7, 3, 4, and 5***
3/8	6.2-6.3	Right Triangle Applications, Trigonometric Functions of any Angle
3/20	6.4-6.5	Unit Circle; Radian Measures of Angles, Circular Functions
3/22	6.5-6.6	Circular Functions and Graphing Trigonometric Functions
3/27	7.1-7.2	Trigonometric Identities (7.1-7.3A, 7.1-7.3B, 7.1-7.3C in coursepack)
3/29	7.3-7.4	Proving Trig Identities; Sum to Difference and Difference to Sum Identities (7.1-7.3D, 7.1-7.3E in coursepack); Inverse Trig functions
4/3	7.4-7.5	Inverse Trigonometric Functions; Solving Trigonometric Equations
4/5	8.1-8.2	Law of Sines and Law of Cosines
4/10		***Exam 3 Review: Chapters 6, 7, and 8***
4/12		***Exam 3: Chapters 6, 7, and 8***
4/17	9.1-9.2	Solving Systems of Linear Equations in 2 and 3 variables.
4/19	9.3	Solving Systems of Linear Equations Using Matrices
4/24	10.1-10.2	Conic Sections: Parabolas and Circles
4/26	10.2-10.3	Conic Sections: Ellipses and Hyperbolas
5/1		***Comprehensive Final Exam Review***
5/3		***Comprehensive Final Exam***