

Math 135 - Finite Math Online - Syllabus

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Note about e-mail:

You can e-mail me a question any time.

I try to return e-mail within 48 hours, with the exception of weekends; if you e-mail after 3 pm on a Friday, you may not hear back from me until the following Monday.

If you have a personal question, e-mail me directly at BaarsonMonaG@jccmi.edu
When you e-mail, put **MTH135 Online** in the subject line followed by your name.
So, the e-mail will come to me as: **Subject: MAT135 Online Your Name.**

If you need an immediate answer put: **Subject: MAT135 Online Your Name URGENT**

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, conic sections, sequences and series, and probability. A graphing calculator is required and will be used extensively.

Prerequisite(s):

Math 035 or equivalent

Course Goals:

The purpose of this course is to develop an understanding of functions, advanced concepts of algebra and trigonometry. We will also learn to use problem solving techniques to obtain a sense of how and why algebra is used, and to be able to relate these problems and use the learned problem solving techniques to real life applications. This course also will have an extensive use of the TI-83 Plus graphing calculator. Great emphasis will be placed on understanding of terms, concepts, principles and theories rather than cramming and memorization.

Performance Objectives:

I. Core Course Objectives

- 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. (ADO 3)
- Use appropriate algorithmic processes (this includes processes that involve matrices) to solve: (ADO 3)
 - 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
- Manipulate and identify functions graphically, symbolically, and numerically. (ADO 3)
- Solve application problems involving many different subject areas using algebraic processes, counting techniques, and the binomial theorem. (ADO 7)
- Apply fundamentals of right triangle trigonometry and solve application problems. (ADO 3 and ADO 7)
- Use appropriate technology (such as a graphing calculator) to enhance the understanding of objectives. (ADO 3)
- Have knowledge of science and technology used in this area of study.

II. Associate Degree Outcomes

The Board of Trustees has determined that all JCC graduates should develop or enhance certain essential skills while enrolled in the college. All courses at Jackson Community College address one or more institutionally defined Associate Degree Outcomes (ADOs).

MATH 141 addresses several of these **Associate Degree Outcomes** (see below) :

- Demonstrate computational skills and mathematical reasoning. (ADO 3)
- Critical thinking and problem solving (ADO 7)

Associate Degree Outcomes:

Mathematics is required for graduation from Jackson Community College and is a component of general education. General education promotes essential skills and understandings that collectively define the educated person. One aspect of general education is the development of practical skills which is guided by the associate degree outcomes (ADOs).

A graduate from JCC should possess the following skills (associate degree 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

Materials Needed for the Course

- See the Document: **Course Materials**

Course Topics and Assignments

The topics covered in the course, the assignments and the due dates for Homework, Quizzes, Discussion Forums/Link Analysis Paper, Unit Exams, and Final Exam can be found in the following documents:

- See document: **Math 141 Online Course Calendar by Weeks**
- MyMathLab: The **Course Calendar by Weeks** is to be used in conjunction with the due dates found in "MyMathLab" under Do Homework, then Show All. The **Course Calendar by Weeks** will help the student to know what sections and topics in the textbook need to be learned and completed each week in order to meet the due dates posted in "MyMathLab" under Do Homework, then Show All.

Grading Procedures

- See document: **Math 135 Online Grading Procedures**
- See document: **Math 135 Online Grading Scale**

Available Help

- Tutors (plus additional services for academic success) can be accessed by calling 796-8415 or by stopping by the Center for Student Success, Bert Walker Hall Room 125.
- Students requiring special assistance (including those affected by the Americans with Disabilities Act) should contact the Center for Student Success. This is the first step in acquiring the appropriate accommodations to facilitate your learning.
- See the document: **Getting Help with Math 135 Online**

Late Work Policy

- **Homework** is to be completed on or before the due dates.
See: **Math 135 Online Class Calendar by Weeks and MyMathLab for due dates.**
- **Quizzes** are to be completed on or before the due dates.
See: **Math 135 Online Class Calendar by Weeks and MyMathLab for due dates.**
- **Unit Exams** are to be completed on or before the due dates.
See: **Math 135 Online Class Calendar by Weeks and MyMathLab for due dates.**
- **Midterm Exam and the Final Exam** are to be completed and turned in, at the JCC Testing Lab, on or before the due dates.

Or, the **Midterm Exam and Final Exam** are to be completed, mailed to me by US Mail and postmarked on or before the due dates (if you have chosen to take your midterm and final exam at another college testing center or public library).

See: **Math 135 Online Class Calendar by Weeks and MyMathLab for due dates.**

Remember that the due dates are completion dates and postmark dates for the **Midterm Exam and Final Exam.**

- **Discussions and Projects: Discussions, Link Analysis Paper and other Project** are to be completed on or before the due dates.
See: **Math 135 Online Class Calendar by Weeks and MyMathLab for due dates.**

Grading Scale

- See Document: **Math 135 Online Grading Scale**

Class Calendar for Assignments and Due Dates

- See document: **Math 135 Online Class Calendar by Weeks and MyMathLab**
- See MyMathLab: The *Course Calendar by Weeks* is to be used in conjunction with the due dates found in "MyMathLab" under Do Homework, then Show All. The *Course Calendar by Weeks* will help the student to know what sections and topics in the textbook need to be learned and completed each week in order to meet the due dates posted in "MyMathLab" under Do Homework, then Show All.

Please note that the due dates found in MyMathLab are the official due dates (assignments cannot be turned in past the dates in MyMathLab). The dates on the *Course Calendar* are dates that assignments should be completed in order to complete the coursework without feeling rushed.

Other General Information

- **Instructional Philosophy:** Education is a self-initiated, active, goal-directed process, leading to a change and/or expansion of the students understanding of and ability to use the subject material. The student is expected to be accountable for the learning process. The instructor should be viewed as a facilitator and resource person to assist in the process.
- **Academic Honesty:** (Excerpt from JCC policy; see instructor for a copy of the complete policy.) Academic Honesty is expected of all students. It is the ethical behavior that includes producing their own work and not representing others' their own, either by plagiarism, by cheating or by helping others to do so. Faculty members who suspect a student of academic dishonesty may penalize the student by...assigning a failing grade for the paper, project, report, exam or the course itself.
- **Audits:** Must be registered during the first week of class. You will not receive a grade or credit for the course.
- **Drop and Withdraw** deadlines are on the *Academic Calendar website* found at http://www.jccmi.edu/academics/academic_calendar.htm. If you do not wish to complete the class and receive a grade, because you are not happy with your grade or for any other reason, you must withdraw by this date. The instructor may withdraw any student who does not complete assignments and/or tests in a timely manner. However, **do not assume that I will withdraw you.**
- **Incompletes** will be given only in accordance with JCC policy. (Excerpt from JCC policy; see instructor for a copy of the complete 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.
- **General College Policies:** You should read the policies and procedures of the college as specified in the "Student Handbook".

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Course Calendar by Weeks with Assignments and Due Dates

First and foremost, it is extremely important that you understand that **this is not a self-paced course!** Deadlines must be met in order to receive credit for the assignment. In order to get the complete understanding of the subject matter being presented in this course so that you will be able to progress competently to the course that comes after this, namely Calculus I, it is necessary that you progress through the material in a timely and efficient manner. The material has to be learned in a way that allows you to digest the concepts being taught. Therefore, we will have a *Course Calendar by Weeks with Assignments and Due Dates*.

The Course Calendar by Weeks is to be used in conjunction with the due dates found in "MyMathLab" under Do Homework, then Show All. The Course Calendar by Weeks will help the student to know what sections and topics in the textbook need to be learned and completed each week in order to meet the due dates posted in "MyMathLab" under Do Homework, then Show All.

On the **Course Calendar by Weeks**, you will find the various types of activities that we will be doing to receive a grade for this course. In order to complete the course, you must complete the requirements in each of the five categories: Homework, Quizzes, Discussion Forums/Link Analysis Paper, Unit Exams, the Midterm and the Final Exam.

You should also refer to the due dates found in [MyMathLab](#) to help you meet the assignment due dates for the course.

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Course Calendar by Weeks with Assignments and Due Dates

Day	Sections	Topics Covered and Assignments To Be Working On
Week 1	Due by May 5	MyMathLab - Get Signed Up Immediately!!!
	Due by May 13	Proctor Selection Form - Quiz in MyMathLab/CourseCompass
	Due by May 13	Proctor Selection Form - Fill Out and Send to Instructor
	Due by May 13	Unit One: Week 1: Discussion 1 - Self Introduction
	Due by May 20	Unit One: Week 2: Discussion 2 - Online Experience Thus Far
	Due by June 23	Project 1
	Due by June 28	Midterm Exam
	Due by July 13	Link Analysis Paper
	Due by Aug. 11	Final Exam
May 5 to	1.1	Linear Equations and Inequalities and Applications
May 10	1.2	Graphs and Lines and Applications
	1.3	Linear Regression and Applications
Week 2		
	Due by May 5	MyMathLab - Get Signed Up Immediately!!!
	Due by May 13	Proctor Selection Form - Fill Out and Send to Instructor
	Due by May 13	Proctor Selection Form - Quiz in MyMathLab/CourseCompass
	Due by May 13	Unit One: Discussion 1(JetNet)-Self Introduction
	Due by May 20	Unit One: Week 2 Discussion: Online Experience Thus Far
	Due by June 23	Project 1
	Due by June 28	Midterm Exam
	Due by July 13	Link Analysis Paper
	Due by Aug. 11	Final Exam
May 11 to	4.1	Review: Systems of Linear Equations in Two Variables and Applications
May 17	4.2	Systems of Linear Equations and Augmented Matrices
	4.3	Gauss-Jordan Elimination and Applications (Do on calculator) (rref)

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Course Calendar by Weeks with Assignments and Due Dates

Day	Sections	Topics Covered and Assignments To Be Working On
Week 3		
	Due by May 13	Proctor Selection Form - Fill Out and Send to Instructor
	Due by May 13	Proctor Selection Form - Quiz in MyMathLab/CourseCompass
	Due by May 13	Unit One: Discussion 1(JetNet)-Self Introduction
	Due by May 20	Unit One: Week 2 Discussion: Online Experience Thus Far
May 18 to	Due by June 23	Project 1
May 24	Due by June 28	Midterm Exam
	Due by July 13	Link Analysis Paper
	Due by Aug. 11	Final Exam
	4.3	Gauss-Jordan Elimination and Applications (Do on calculator) (rref)
	4.4	Matrices: Basic Operations and Applications (Do on calculator)
	4.5	Inverse of a Square Matrix and Applications (Do on calculator) (Use x^{-1} key)
	4.6	Matrix Equations and Systems of Linear Equations and Applications
	☆☆☆☆☆	<i>Review for Unit Exam #1 - Chapters 1 and 4</i>
	☆☆☆☆☆	<i>Unit Exam #1 - Chapters 1 and 4</i>
Week 4		
	Due by May 20	Unit One: Week 2 Discussion: Online Experience Thus Far
	Due by June 23	Project 1
	Due by June 28	Midterm Exam
	Due by July 13	Link Analysis Paper
	Due by Aug. 11	Final Exam
May 25 to	☆☆☆☆☆	<i>Review for Unit Exam #1 - Chapters 1 and 4</i>
May 31	☆☆☆☆☆	<i>Unit Exam #1 - Chapters 1 and 4</i>
	5.1	Inequalities in Two Variables and Applications
	5.2	Systems of Linear Inequalities in Two Variables and Applications

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Course Calendar by Weeks with Assignments and Due Dates

Day	Sections	Topics Covered and Assignments To Be Working On
Week 5		
	Due by June 23	Project 1
	Due by June 28	Midterm Exam
June 1 to	Due by July 13	Link Analysis Paper
June 7	Due by Aug. 11	Final Exam
	5.1	Inequalities in Two Variables and Applications
	5.2	Systems of Linear Inequalities in Two Variables and Applications
	5.3	Linear Programming in Two Dimensions: A Geometric Approach and Applications

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Course Calendar by Weeks with Assignments and Due Dates

Day	Sections	Topics Covered and Assignments To Be Working On
Week 6		
	Due by June 23	Project 1
	Due by June 28	Midterm Exam
	Due by July 13	Link Analysis Paper
	Due by Aug. 11	Final Exam
June 8 to	5.1	Inequalities in Two Variables and Applications
June 14	5.2	Systems of Linear Inequalities in Two Variables and Applications
	5.3	Linear Programming in Two Dimensions: A Geometric Approach and Applications
	☆☆☆☆☆	<i>Review for Unit Exam #2 - Chapter 5</i>
	☆☆☆☆☆	<i>Unit Exam #2 - Chapter 5</i>
Week 7		
	Due by June 23	Project 1
	Due by June 28	Midterm Exam
	Due by July 13	Link Analysis Paper
	Due by Aug. 11	Final Exam
	☆☆☆☆☆	<i>Review for Unit Exam #2 - Chapter 5</i>
	☆☆☆☆☆	<i>Unit Exam #2 - Chapter 5</i>
June 15 to	3.1	Simple Interest and Applications
June 21	3.2	Compound and Continuous Compound Interest and Applications
	☆☆☆☆☆	<i>Midterm Review - Review Found in JetNet</i>
	☆☆☆☆☆	<i>Midterm Exam - Chapters 1, 4, and 5 (see below)</i>
		<p><u>Please Note: The Midterm Exam must be taken in a proctored environment. The Midterm Exam is a paper and pencil exam in which all work must be shown to receive full credit.</u></p> <p>The Midterm exam must be Postmarked or taken in JCC Testing on or before: June 28, 2014</p>

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Course Calendar by Weeks with Assignments and Due Dates

Day	Sections	Topics Covered and Assignments To Be Working On
Week 8		
	Due by June 23	Project 1
	Due by June 28	Midterm Exam
	Due by July 13	Link Analysis Paper
	Due by Aug. 11	Final Exam
	3.1	Simple Interest and Applications
	3.2	Compound and Continuous Compound Interest and Applications
June 22 to June 28	3.3	Future Value of an Annuity; Sinking Funds and Applications
	3.4	Present Value of an Annuity; Amortization and Applications
	☆☆☆☆☆	<i>Midterm Review - Review Found in JetNet</i>
	☆☆☆☆☆	<i>Midterm Exam - Chapters 1, 4, and 5 (see below)</i>
		<p><u>Please Note: The Midterm Exam must be taken in a proctored environment. The Midterm Exam is a paper and pencil exam in which all work must be shown to receive full credit.</u></p> <p style="text-align: center;">The Midterm exam must be Postmarked or taken in JCC Testing on or before: June 28, 2014</p>
Week 9		
	Due by July 13	Link Analysis Paper
	Due by Aug. 11	Final Exam
June 29 to July 5	3.3	Future Value of an Annuity; Sinking Funds and Applications
	3.4	Present Value of an Annuity; Amortization and Applications
	☆☆☆☆☆	<i>Review for Unit Exam #3 - Chapter 3</i>
	☆☆☆☆☆	<i>Unit Exam #3 - Chapter 3</i>

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Course Calendar by Weeks with Assignments and Due Dates

Day	Sections	Topics Covered and Assignments To Be Working On
Week 10		
	Due by July 13	Link Analysis Paper
	Due by Aug. 11	Final Exam
July 6 to	3.3	Future Value of an Annuity; Sinking Funds and Applications
July 12	3.4	Present Value of an Annuity; Amortization and Applications
	☆☆☆☆☆☆	<i>Review for Unit Exam #3 - Chapter 3</i>
	☆☆☆☆☆☆	<i>Unit Exam #3 - Chapter 3</i>
	7.2	Sets and Applications
Week 11		
	Due by July 13	Link Analysis Paper
	Due by Aug. 11	Final Exam
	☆☆☆☆☆☆	<i>Review for Unit Exam #3 - Chapter 3</i>
	☆☆☆☆☆☆	<i>Unit Exam #3 - Chapter 3</i>
July 13 to	7.2	Sets and Applications
July 19	7.3	Basic Counting Principles and Applications
	7.4	Permutations and Combinations and Applications

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Course Calendar by Weeks with Assignments and Due Dates

Day	Sections	Topics Covered and Assignments To Be Working On
Week 12		
	Due by Aug. 11	Final Exam
July 20 to	7.2	Sets and Applications
July 26	7.3	Basic Counting Principles and Applications
	7.4	Permutations and Combinations and Applications
Week 13		
	Due by Aug. 11	Final Exam
July 27 to	8.1	Sample Spaces, Events, and Probability and Applications
August 2	8.2	Union, Intersection, and Complement of Events; Odds and Applications
	☆☆☆☆☆	<i>Comprehensive Final Exam Review - Review Found in JetNet</i>
	☆☆☆☆☆	<i>Comprehensive Final Exam (see below)</i>
		<p><u>Please Note: The Final Exam must be taken in a proctored environment. The Final Exam is a paper and pencil exam in which all work must be shown to receive full credit.</u></p> <p>The Comprehensive Final Exam must be Postmarked or taken in JCC Testing on or before: Monday, August 11, 2014</p>

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Course Calendar by Weeks with Assignments and Due Dates

Day	Sections	Topics Covered and Assignments To Be Working On
Week 14		
	Due by Aug. 11	Final Exam
August 3 to	8.1	Sample Spaces, Events, and Probability and Applications
August 9	8.2	Union, Intersection, and Complement of Events; Odds and Applications
	8.3	Conditional Probability, Intersection, and Independence and Applications
	8.4	Bayes' Formula and Applications
	☆☆☆☆☆☆	<i>Review for Unit Exam #4 - Chapters 7 and 8</i>
	☆☆☆☆☆☆	<i>Unit Exam #4 - Chapters 7 and 8</i>
	☆☆☆☆☆☆	<i>Comprehensive Final Exam Review - Review Found in JetNet</i>
	☆☆☆☆☆☆	<i>Comprehensive Final Exam (see below)</i>
		<p><u>Please Note: The Final Exam must be taken in a proctored environment. The Final Exam is a paper and pencil exam in which all work must be shown to receive full credit.</u></p> <p>The Comprehensive Final Exam must be Postmarked or taken in JCC Testing on or before: Monday, August 11, 2014</p>
Week 15		
	Due by Aug. 11	Final Exam
August 10 to	☆☆☆☆☆☆	<i>Comprehensive Final Exam Review - Review Found in JetNet</i>
August 18	☆☆☆☆☆☆	<i>Comprehensive Final Exam (see below)</i>
		<p>The Comprehensive Final Exam must be Postmarked or taken in JCC Testing on or before: Monday, August 11, 2014</p>
	8.1	Sample Spaces, Events, and Probability and Applications
	8.2	Union, Intersection, and Complement of Events; Odds and Applications
	8.3	Conditional Probability, Intersection, and Independence and Applications
	8.4	Bayes' Formula and Applications
	☆☆☆☆☆☆	<i>Review for Unit Exam #4 - Chapters 7 and 8</i>
	☆☆☆☆☆☆	<i>Unit Exam #4 - Chapters 7 and 8</i>
		<i>Finish up assignments in MML</i>
		<p>Note: The Last Day of this Class is August 18, 2013 at 11:59 am (or Noon)</p>

