

Math 154.I1 – Calculus II Online – Syllabus Winter 2021

Instructor:	Mona Baarson
E-mail:	baarsonmonag@jccmi.edu
MyMathLab Website:	www.MyMathLab.com
MyMathLab Course ID:	See “How to Sign Up for My Math Lab” instruction sheet
Synchronous Class Sessions/Office Hours:	Tuesday/Thursday from 8:30am – 11:00am Time after class Email: baarsonmonag@jccmi.edu

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.

When you e-mail, please **put MTH154.I1 Online in the subject line followed by your name.**

So, the e-mail will come to me as: **Subject: MAT154.I1 Online Your Name.**

I teach more than one class, so please identify the class you are in with your email.

Course Materials:

1. If you are participating in the College’s Access program, you should have received an email from the bookstore about how to get materials as you’ve already paid for them.

Please be sure to check your JC email!

2. If you opted out of the Access program, you will need to purchase the materials listed on the bookstore website.

The materials you will need to purchase are:

- MyMathLab Access code
 - and a large MAT 154 Coursepack.
3. You will need access to graphing technology, such as a graphing calculator or Desmos. I will be using a TI-84 and Desmos during our class times together.
 4. You will need a computer or a tablet with a webcam. This is required to do MML assignments, to participate in class via Zoom, and for proctored testing.

Internet Access:

As you all know by now, most classes at Jackson College are online for the Winter 2021 semester.

- Given that this course will be completely online, **you will need reliable internet access** and some technological tools.
- You will need to be able to watch and listen to videos on a computer screen (big enough to see details).
- You will need to connect to **video-based meeting software** like Zoom or BigBlueButton.

Web Camera:

Another requirement that I would like to make you aware of ahead of time is the need for a webcam.

- **Each student must have a webcam** and have the video and microphone turned on for each class period.
- It is important that we be able to see each other and communicate with each other.
- Also, we will be working together in class on class work assignments.
- In addition to the ability to share your faces and get to know your class during the synchronous sessions, there will be several proctored, closed-book tests that must be taken while being **monitored via a web camera**.
- You may also be required to screen-share and/or scan your environment during the exam.
- Webcams are built-in to many laptops or can be purchased as an accessory for laptop and desktop computers.

PDF Scanning:

You need to have the ability to create scanned PDF files of physical documents.

- Unless you have easy access to a physical scanner, I strongly urge you to get access to a free scan-to-PDF app for your mobile device as soon as possible (if you don't have ready access to a stand-alone scanner).
- For example, Genius scan, Cam Scanner, and Adobe Scan are free and do a good job of turning handwritten work into PDF files.
- Check out this [tutorial video](#) a colleague of mine made for her students about Adobe Scan.

Synchronous Sessions (a.k.a. Live Class Sessions):

As I hope you are aware, this course has built-in synchronous (live online) class sessions.

- The synchronous sessions for MAT 154.11 are every Tuesday and Thursday from 8:30 am – 11:00 am (Jan 12 – Apr 29).

While this is an online class, there are some specific advantages to attending the synchronous sessions:

- The Math Department has analyzed data and results and we have found that students that attend synchronous class sessions tend to be more successful in online classes. Therefore, all JC Math classes have synchronous session times.
- Attending these sessions allows you to talk with the instructor and your classmates in real time. You can ask and answer questions, get clarifications, work on problems with classmates and develop a sense of classroom community.
- If you are having any trouble with assigned work this is an opportunity to get help before you have to hand it in!
- In addition to question and answer, each class session will include time for extra learning activities, extra examples, and sometimes time to work together with classmates on upcoming assignments.

ATTENDANCE Policy:

Class attendance is so very important and is the primary reason for success in our course.

- Attendance is required and will be taken in various formats.
- As per college policy, I will be monitoring participation in class.
- **If you do not “actively participate” in the first day of class, you will be dropped.**

Participation in this course is considered “active participation”, meaning that in order to be counted as ‘present’ in the course and in the college’s attendance system you must make progress toward course completion each week.

I define “active participation” as:

- Attending our bi-weekly synchronous class sessions via ZOOM.
- Completing assignments in MyMathLab such as homework, quizzes and unit exams
- Submitting assigned work such as worksheets and work for exams in JetNet
- Sending the instructor emails and communicating with instructor about the course

If you fail to participate in the course for a period of one week, you will be dropped from the class.

Communication:

ZOOM:

1. I will be using ZOOM for LIVE and in person, synchronous class sessions for the entire semester!!
 - Although this is an online class, I really encourage you to attend these ZOOM sessions; it is definitely to your advantage to attend.
 - The synchronous sessions for MAT 154.I1 are every Tuesday and Thursday from 8:30 am–11:00 am.
 - Our class will meet every Tuesday and Thursday from 8:30 am – 11:00 am, via ZOOM.
 - **Before we have our first Zoom Class, during our regularly scheduled class time, you will need to download the Zoom Application to your computer desktop and also to your phone.**
 - **Please see the documents on how to download the Zoom Application, how to learn using Zoom and how to use Zoom for the first time.**
 - **These are found in JetNet Course Documents, MyMathLab Course Documents and in the Welcome to Class Emails that were sent before classes began.**
2. I will create a recurring link to join a ZOOM session during our regularly scheduled class times on Tuesday and Thursday from 8:30 am – 11:00 am.
 - I will be sending another email to the class prior to class starting with the recurring zoom link.
 - I will send a recurring link to join a ZOOM session during our regularly scheduled class times on Monday and Wednesday, from 8:30 am – 11:00 am.
 - The recurring Zoom link will be sent to your JC email.
 - The recurring Zoom link will also be posted in the JetNet course for our class
 - You will just simply click on the link just before 8:30am each class day.
3. Also, there will be a practice Zoom Session on Sunday, January 10, before class starts on Tuesday, January 12, 2021.
 - I will be sending another email to the class prior to class starting with the practice zoom link.
 - This session is just a quick check in to be sure everyone can access the zoom platform.

WEBCAM

- **Each student must have a webcam.**
- The video and microphone turned on for each class period.
- It is important that we be able to see each other and communicate with each other.
- Also, we will be working together in class on class work assignments.
- The web camera will be used to proctor the Midterm Exam and Final Exam.

EMAIL

- I will also communicate course updates and information through you JC Email address.
- Students are also encouraged to email outside of class time, using their JC email account.
- Announcements for MAT 154.I1 will be sent through your JC email account.

Math 154 Online Calculus II

Course Format and Grading Procedures

Course Format

Live Online Class Sessions via ZOOM:

- Although these sessions are not required, I really encourage you to attend these ZOOM sessions; it is definitely to your advantage to attend.
- Our class is scheduled to have two live online class sessions per week (Tuesday and Thursday from 8:30 am – 11:00 am) using ZOOM.
- During these live class sessions, I will be teaching the material from the notes, answer questions students have about how to work specific problems, give information about course requirements and what is expected in terms of testing, and anything else we need to go over with respect to the class.

Zoom Videos:

- I will be recording the live class sessions via ZOOM.
- After class, I will be posting the links to the ZOOM videos in MyMathLab.
- If you are unable to attend the live class sessions, these videos will be available for you to watch.

Course Notes/ Course Videos:

- I will also have **some** (not all) videos over the course notes, with the links posted in MyMathLab.
- All of the course pack will not be filled in during our scheduled live sessions.
- So on occasion you might need to watch the videos and take notes using your course pack.
- I will also post the keys to the notes we took in class. You may use these to help fill in the notes you might have missed.

Grading Procedures

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. 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.

- It is important to understand that assignments will be completed in MyMathLab and also some assignments will be posted in JetNet.
- The MAT 154 Course Calendar for Dates that Sections will be Covered is to be used in conjunction with the due dates found in MyMathLab.
- The MAT 154 Course Calendar for Dates that Sections will be Covered 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.
- The official due dates for the MyMathLab assignments (MyMathLab Homework, MyMathLab Quizzes and MyMathLab Unit Exams) are in MyMathLab and the due dates for assignments that need to be posted in JetNet are in JetNet. (If necessary, the instructor will make changes to these due dates.)

On **The MAT 154 Course Calendar for Dates that Sections will be Covered**, you will find the approximate dates that sections of the course will be covered, approximate dates you should be ready to take the MML unit exams, and the **exact dates for the proctored Midterm and the proctored Final Exam.**

In order to complete the course, you must complete the requirements in each of the five categories: MML Homework, MML Quizzes, MML Unit Exams, a few Classwork Worksheets (submitted through JetNet), **the proctored Midterm and the proctored Final Exam.**

Remember: You should refer to the due dates found in MyMathLab to help you meet the official assignment due dates for the MyMathLab assignments in the course.

MyMathLab Homework: MyMathLab Homework counts 10% of the final grade.

- **Homework** assignments will be completed using MyMathLab.
- These assignments are done on a computer with internet access using MyMathLab.
- MyMathLab can be accessed at the website: www.mymathlab.com
- Homework due dates are posted in MyMathLab.
- **Note: You have an unlimited number of tries to do the homework. Thus, all of your homework should receive full credit, if you keep trying until you get a perfect score!**

MyMathLab Quizzes: count 10% of the final grade.

- **MML Quiz** assignments will be completed using MyMathLab.
- These assignments are done on a computer with internet access using MyMathLab.
- MyMathLab can be accessed at the website: www.mymathlab.com
- Quiz due dates are posted in MyMathLab.
- **Note: You have an unlimited number of tries to do the quizzes. Thus, all of your quizzes should receive full credit, if you keep trying until you get a perfect score!**

Classwork Worksheets/Project: count 10% of the final grade.

- Worksheets are part of your course pack.
- Some (but not all) of the worksheets will be assigned. I will let you know which ones need to be completed and submitted.
- Worksheets must be completed by the due date.
- You will be asked to submit your worksheets using the following procedure.
 1. Complete the assignment by hand (pencil and paper); be sure to write clearly and legibly.
 2. Convert your assignment to a pdf. You can scan it if you have access to a desktop/printer scanner, or you can scan and convert to a pdf using your phone and one of the free scanning apps. I like to use CamScanner or GeniusScan, but there are others out there as well. Use what works best for you.
 3. E-mail the scanned file to yourself (can be done from within the GeniusScan app) and save it on your computer.
 4. Locate the assignment in JetNet and click on the link. Submit the assignment by simply dragging and dropping the pdf file into the designated area.

Unit Exams: count 20% of the final grade.

- **Unit Exams** will be completed using MyMathLab or Paper/Pencil (which can be printed and worked out on).
- These assignments are done on a computer with internet access using MyMathLab.
- MyMathLab can be accessed at the website: www.mymathlab.com
- Unit Exam due dates are posted in MyMathLab.
- You will be able to take these tests on your own with your notes available but will be asked to certify that your work is entirely your own, and you have not used outside help to complete the tests.
- You will be asked to submit the work for your Unit Exams using the following procedure.
 1. Complete the assignment by hand (pencil and paper); be sure to write clearly and legibly.
 2. Convert your assignment to a pdf. You can scan it if you have access to a desktop/printer scanner, or you can scan and convert to a pdf using your phone and one of the free scanning apps. I like to use CamScanner or GeniusScan, but there are others out there as well. Use what works best for you.
 3. E-mail the scanned file to yourself (can be done from within the GeniusScan app) and save it on your computer.
 4. Locate the assignment in JetNet and click on the link. Submit the assignment by simply dragging and dropping the pdf file into the designated area.
- **Note: You have 3 tries to do the Unit Exams if they are given on MML. Thus, all of your Unit Exams on MML should receive full credit, if you keep trying until you get a perfect score!**

Midterm Exam: counts 25% of the final grade.

- **The Midterm Exam** will be a proctored, closed-book exam.
- The exam must be taken while being monitored via a web camera.
- You will take the Midterm Exam during the normal scheduled ZOOM class session.
- If you are unable to take the Midterm Exam during the scheduled class time, you can make other arrangements directly with your instructor.
- Other arrangements for the Midterm Exam must be made well in advance of the scheduled Midterm Exam.
- Midterm Exams not taken by the due date will receive a grade of zero except under extreme, well-documented circumstances arranged *in advance* of the due date with the instructor.

Final Exam: counts 25% of the final grade.

- **The Final Exam** will be a proctored, closed-book exam.
- The exam must be taken while being monitored via a web camera.
- You will take the Final Exam during the normal scheduled ZOOM class session.
- If you are unable to take the Final Exam during the scheduled class time, you can make other arrangements directly with your instructor.
- Other arrangements for the Final Exam must be made well in advance of the scheduled Final Exam.
- The Final Exam must be taken by the last day of the course.

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.

GRADES WILL BE BASED ON THE FOLLOWING SCALE:

Grading Scale Weighted Average (%)	Course Grade	Grading Policy
90 – 100%	4.0	
85 – 89%	3.5	MyMathLab Homework: 10%
80 – 84%	3.0	MyMathLab Quizzes: 10%
75 – 79%	2.5	Unit Exams: 20%
70 – 74%	2.0	Classwork Worksheets/Project: 10%
65 – 69%	1.5	Midterm Exam: 25%
60 – 64%	1.0	Final Exam: 25%
50 – 59%	0.5	
0 – 49%	0.0	

Purpose and Learning Objectives

**"The function of education is to teach the student to think intensively and critically.
Intelligence plus character.... that is the goal of education."**

Dr. Martin Luther King

Course Description: This is the second calculus course for business, mathematics, engineering and science students. In this course, we will explore the following topics: methods and applications of the derivative and integral for inverse trigonometric and hyperbolic functions, indeterminate forms, series, polar and parametric representation of functions, matrices, determinants, solution of systems of equations, and vectors. A graphing calculator is required. I will be using the TI-84 Plus (or TI-83 Plus) and the TI-89.

Prerequisite(s): Math 151 or equivalent

Course Goals: The purpose of this course is to develop a progressive understanding of the concepts of the second course in calculus: methods and applications of the derivative and integral for inverse trigonometric and hyperbolic functions, indeterminate forms, series, polar equations and parametric representation of functions. Not only will we learn the theory behind each of these concepts, but we will also be able to use these theories in practical application problems. We will integrate the use of technology throughout the course by making use of the Graphing Calculator (TI-84 Plus and the TI-89) and/or Desmos. We will develop problem solving techniques applicable to Calculus to obtain a sense of how and why Calculus is used to solve many problems in many different subject areas. Great emphasis will be placed on understanding of terms, concepts, principles and theories rather than cramming and memorization.

Performance Objectives:

I. Core Course Objectives

Students completing Math 154-Calculus will be able to:

1. Understand basic concepts of differential equations including: Slope Fields, Euler's Method, solving differential equations by separation of variables, use of exponential and logistic differential functions to model growth and decay in applied problems.
2. Apply calculus to standard applications. Applications may include volumes of solids of revolution, arc length, work, force, and centroids.
3. Understand multiple techniques for integration including: substitution, tables, parts, partial fractions, and trigonometric substitution.
4. Understand sequences and series; identify manipulate, and test the convergence of various series including Taylor, and Maclaurin.
5. Perform calculus in polar coordinates and with parametric equations.
6. Apply appropriate technology in all the above areas.

II. **General Education Outcomes (GEO) & Essential Competencies (EC)**

General education outcomes and essential competencies assesses the student's attainment of skills obtained during their completion of a degree. These skills are defined consistent with the college mission, and dispersed across a multitude of courses in the student's program. Courses fulfilling one of more of these outcomes assess for achievement once/year.

Because the vision of Jackson College includes a variety of educational, cultural and economic goals, the general education requirements involve both traditional intellectual pursuits and practical skill development. As the general education requirements are designed to ensure breadth and depth of knowledge, they are met through carefully designed programs of study. Programs of study help students meet these goals by addressing each of the skill areas identified in the **General Education Outcomes**. These are skills which the Jackson College Board of Trustees has determined students should develop or enhance while enrolled in the college.

General Education Outcomes

1. Write clearly, concisely and intelligibly
2. Speak clearly, concisely and intelligibly
3. Demonstrate computational skills and mathematical reasoning
4. Demonstrate scientific reasoning
5. Understand human behavior and social systems, and the principles which govern them.
6. Understand aesthetic experience and artistic creativity
7. Understand and respect the diversity and interdependence of the world's peoples and cultures

Essential Competencies (EC)

In addition to the GEOs listed above, the college is committed to helping students develop three Essential Competencies. These skills are embedded in each program of study and are shaped by the program focus and the pathway within which the program is hosted.

Essential Competencies

1. Think critically and act responsibly
2. Work productively with others, recognizing individual contributions to group success
3. Exhibit technological literacy

MATH 154 addresses GEO 3: Demonstrate computational skills and mathematical reasoning

Instructional Techniques and Procedures

This course usually consists of mostly instruction, group work and classroom demonstrations using graphing technology such as the TI84 Plus graphing calculator and Desmos.

Course Information and Policies

ATTENDANCE Policy:

Class attendance is so very important and is the primary reason for success in our course.

- Attendance is required and will be taken in various formats.
- As per college policy, I will be monitoring participation in class.

I define active participation as:

- Attending our bi-weekly ZOOM class sessions
- Completing assignments in MML such as homework, quizzes and unit exams
- Submitting assigned work such as worksheets and work for exams in JetNet
- Sending the instructor emails and communicating with instructor about the course

If you fail to participate in the course for a period of one week, you will be dropped from the class.

Important Dates:

Be sure to check out the JCC Academic Calendar for important dates such as holidays with no classes, last day to withdraw, etc.

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.

Incompletes will be given only in accordance with JC 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.

Please Note: *I will not give an incomplete simply to avoid a failing grade.*

General College Policies:

You should read the policies and procedures of the college as specified in the "Student Handbook" .

Extra Credit:

The mathematics department strongly recommends that extra credit not be offered in mathematics courses. In order to foster a collegiate environment, maintain the integrity of student grades, and provide for proper student placement and advancement through sequenced courses, the department believes this to be in the best interests of both students and faculty. Extra credit is understood to include bonus points on a test or assignment, separate extra credit assignments, and other forms of providing opportunities for more than 100% credit.

Please Note: *I do not give an extra credit on any assignments.*

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.

Getting Help with This Class

Synchronous Class Sessions/Office Hours:

Tuesday/Thursday 8:30am – 11:00am

Time before and after class

Email: baarsonmonag@jccmi.edu

Supplemental Instruction:

Tutoring:

- There are also personal tutors available through the Center for Student Success.
- If you feel that you need a personal tutor, please send me an email and I will put you in touch with the person in charge of this service.

Study Groups:

I strongly encourage you to make a friend or friends in class that you can get together with outside of class. One of the best ways to study and to learn is by helping one another.

Like “they” say, “Two heads are better than one.”

Calculator Help

- You can get **Online Help** with most major brands and models of graphing calculator.
- If you are using the TI-84 you are welcome to come see me during office hours to get help.
- We will also be learning the calculator in class as we progress through the course material.

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.