Course Information
MAT 151: Calculus I
Fall, 2017

Instructor:

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    Office hours: Monday: 9:15 - 11
                      Wednesday9:15 - 11
                      Thursday: 9:15 - 12
                      Other times by appointment

Course Materials:

    Textbook : Briggs, *Calculus, Early Transcendentals, 2nd edition* available electronically through My Math Lab or in a bundle containing both My Math Lab and a hardcopy of the book if you prefer a hard copy. My Math Lab alone can be purchased in the JC bookstore or online at www.mymathlab.com. The textbook/My Math Lab bundle is available in the JC bookstore.

    Calculator: Graphing calculator required; TI-83 or TI-84 recommended
                 Please note that you must have a stand-alone calculator; you will not be able to use a calculator app on your phone or computer during exams.

Course Pre-requisites: MAT 141 or an equivalent pre-calculus course.

Course Outcomes: Students who are successful in MAT 151 will be able to:
- Find limits using graphical, numerical and analytical methods
- Find derivatives of algebraic, exponential, logarithmic and trigonometric functions
- Solve problems involving applications of the derivative
- Perform integration including techniques of substitution and numerical integration
- Solve problems involving application of the integral to finding area

General Education Outcomes: The Board of Trustees has determined that all JCC graduates develop or enhance certain essential skills while enrolled in the college. MAT 151 contributes to the following General Education Outcomes:

GEO 3: Demonstrate computational skills and mathematical reasoning.

Course Requirements

Your final grade for the course will be determined by your performance in these categories.

- ♦ **Practice Problems:**
  - o Practice problems from the textbook (accessible in hard copy or online) will be given to you as a list for each unit.
  - o When doing these problems, work must be shown in order to get credit.
  - o Bind all problems for each unit in a three prong folder, in order and clearly labeled, to hand in to me on or before the due date for each test.
  - o Practice Problem folders will be graded for completeness. The average of your homework folder grades can be used to replace your lowest unit test score. The final exam score may not be replaced.
  - o At least 30% of the problems from each test will be taken from the assigned practice problems.

- ♦ **Homework:**
  - o There will be a limited number of assignments given that you must complete in My Math Lab. Most of these assignments consist of review of important algebra/trig skills that will be essential in calculus. These will be reviewed on a 'just in time' basis and must be completed by their due date in order to receive credit.
  - o Test Reviews are included in this category, and must be handed in to the testing lab when you take each test. Work must be shown in order to earn credit.
  - o Also included in this category are a few paper-pencil homework assignments that will be distributed in class. These assignments usually cover some of the more theoretical parts of calculus.

- ♦ **Classwork:**
  - o Classwork consists of practice problems worked mostly during class; there will be some form of classwork nearly every day.
  - o Classwork is always due the next class period, so you can finish at home if you run out of time during class. Classwork cannot be made up if you miss class. I will drop your 2 lowest classwork grades at the end of the semester.
  - o During classwork time, you are encouraged to work with other students, and to ask questions of your instructor. This is primarily a learning time, not an assessment.

- ♦ **Exams: These are closed-book tests normally taken in the testing lab (see calendar for dates).**
  - o With the exception of the final exam, tests will be taken in the testing lab, WA 121. A window of several days will be given for you to go in to the lab and take each test. Please plan ahead for exam windows; make arrangements to have time to go to the lab to take your tests. Lab hours can be found at www.jccmi.edu/testing-lab
  - o No books or notes may be used other than those provided by the instructor.
  - o If you cannot take an exam by its due date, you are required to notify me in advance by phone or e-mail. Only if advance notice is given will arrangements be made for you to make up the exam. Once an exam is returned, no make-ups will be given.

Grading Information

- ♦ **Homework: 15% of final grade**
  - o Your grades on assigned homework will count as 10% of your final grade. These assignments are not accepted late.

- ♦ **Classwork: 15% of final grade**
  - o Your grades on in-class assignments will contribute 20%. Your lowest two classwork scores will be dropped. Missed classwork cannot be made up.

- ♦ **Course Exams: 70% of final grade.**
  - o Your five unit exam grades will count as 50% of your final grade (10% for each exam).
  - o Your final exam will count as 20% of your final grade.

Your final grade for the course will be determined by the following grading scale:

Points Earned	Final Grade
90 – 100	4.0
85 – 89	3.5
80 – 84	3.0
75 – 79	2.5
70 – 74	2.0
65 – 69	1.5
60 – 64	1.0
50 – 59	0.5
00 – 49	0.0

General Policy Information

♦ **Intermediate Grading**:
To comply with college policy and federal regulations I am to assign a grade to you after approximately two weeks, five weeks, and eight weeks. 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 and offered tutoring services.
- Q: means that you have quit participating in the course. If you receive a Q grade, you will be automatically withdrawn from the course. I normally assign a Q grade if I have not receive work from you for four classes in a row (classwork or exams, as appropriate to the days), and you have not contacted me regarding your absences.

♦ **Special Grading Situations**:
- Audits must be registered by you during the first week of class. You will not receive a grade or credit for the class.
- If you wish to withdraw from class, please check e-services (link from the college's home page at www.jccmi.edu) for important dates. Although your instructor may withdraw you for non-participation before midterm, only the student can initiate a withdrawal after midterm.
- Incomplete grades will be given only in accordance with 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. Final determination of whether an incomplete will be given is the instructor's decision.

♦ **Academic Honesty**: (Excerpt from JC policy): Academic honesty is expected of all students. It is the ethical behavior that includes producing their own work and not representing others' work as their own, either by plagiarism, by cheating, or by helping others to do so. Faculty members who suspect a student of dishonesty may penalize the student by assigning a failing grade for the paper, project, report, exam or the course itself. The academic dean will be notified of the situation.

♦ **Extra Credit Policy**: The mathematics department at JC strongly recommends that extra credit not be offered in mathematics courses. In order to foster a collegiate environment, maintain the integrity of 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.

- **Classroom Behavior Policy**: Please be respectful of other students, the instructor, and yourself. Cell phones should be silenced during class; avoid phone calls and texting during class time (in an emergency please leave the room to handle your call or message and return as quickly and quietly as possible); students using cell phones for any reason during class may be asked to leave and may not return until the next class. Interruptions and side conversations while someone is speaking, instructor or student, are disrespectful and will not be tolerated. Practice good communication at all times, avoiding profanity, critical, or unkind remarks.

Getting Help: Success is the Goal!

Education is a self-initiated, goal-directed process. You as the student are expected to be accountable for your own learning. The instructor is a facilitator and resource person who will assist in this process.

If you recognize that you need additional help in order to be successful, you have a number of options. The most important thing about getting help is to do so as soon as you feel like you are getting lost or behind. The quicker you seek help, the more likely it is that you will be able to be successful.

- **Your instructor:** Please make use of your instructor! I am here to help. I am available during classwork times, and also outside of class during my posted office hours. You are also welcome to make a special appointment to see me.

- **Each other:** Your classmates can be an excellent resource, and you can be a resource for others in the class as well. Form a study group, exchange contact information with others in the class, and work problems together! Do be careful with assignments that are handed in for a grade. While it is fine to discuss problems together and troubleshoot for one another, each student should produce their own final solution meaning that identical papers should not occur.

- **Center for Student Success:** Located in Walker Hall, the center provides tutoring and other services. Please call or visit for more information.

Remember, your attitude, self-management skills, and personal responsibility play a vital role in your success. A positive approach combined with a good work ethic will bring the greatest success. Be the creator of your own success! I look forward to working with you this semester.

Course Calendar: MAT 151 Fall, 2017

Date	Coursepack Section(s)	Topics
W 9/6	Course Intro	
	1A	Limits: Graphical Methods
M 9/11	1B	Limits: Numerical Methods
W 9/13	1C	Limits: Analytical Methods
M 9/18	1D	Limits at Infinity
		Limits: Mixed Practice
W 9/20	1E	Continuity and IVT
	1F	Applications of Limits
M 9/25	Unit 1	Review
	Test 1	In Testing Lab 9/24 – 9/27
W 9/27	2A	Definition of the Derivative
M 10/2	2B	Derivatives Graphically
	2C	Derivatives: Basic Rules for Analytic Methods
W 10/4	2D	Applications of the Derivative (Basic Rules)
	2E	Derivatives: Product/Quotient Rules
M 10/9	2F	Higher Order Derivatives
	2G	Further Applications of the Derivative
W 10/11	2H	Derivatives: Chain Rule
M 10/16	Unit 2	Review
	Test 2	In Testing Lab 10/15 – 10/18
W 10/18	3A	Implicit Derivatives
M 10/23	3B	Derivatives of Logarithmic Functions
W 10/25	3C	Derivatives of Inverse Trig Functions
		Derivatives: Mixed Practice
M 10/30	3D	Application of the Derivative: Related Rates
W 11/1	Unit 3	Review
	Test 3	In Testing Lab 11/2 – 11/4
M 11/6	4A	What Derivatives Tells Us About Graphs:
		Max, Min, Concavity, Inflection Points
W 11/8	4B	Using Calculus to Draw Graphs
M 11/13	4C	Absolute Max/Mins
	4D	Optimization Applications

W 11/15	4D	Optimization Applications
M 11/20	4E	Linear Approximation
	4F	Rolle's Theorem, Mean Value Theorem
M 11/27	Unit 4	Review
	Test 4	In Testing Lab 11/28 – 12/1
W 11/29	5A	Area Under a Curve: Riemann Sums
M 12/4	5B	The Definite Integral and Its Properties
	5C	Antiderivatives
W 12/6	5D	Fundamental Theorem of Calculus (FTC)
	5E	Integration by Substitution
M 12/11	Unit 5	Review
	Test 5	In Testing Lab 12/12 – 12/15
W 12/13	5F	Integrals Involving Natural Log Function
	5G	Integrals Involving Inverse Trig Functions
M 12/18	Entire Course	Review for Final Exam
W 12/20		Final Exam

IMPORTANT NOTE: The above calendar is intended to give you an idea of how the semester may progress. However, it is subject to change as needed. The instructor will inform you of changes or updates as they occur; it is important that you attend class each day in order to be sure that you have the most up-to-date information