Course Information
MAT 154: Calculus II
Fall, 2019

Instructor: Kristi Laird

Course Materials:
>Subscription: My Math Lab web-based course system OR textbook hard copy (see below)
>Textbook : Briggs, *Calculus, Early Transcendentals, 2nd edition*
>>Textbook Zero: text is available electronically through My Math Lab (hard copy not required)
>
>Calculator: Graphing calculator required; TI-84 or TI-Inspire 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.
>
>Recommended: Large 3-Ring Binder, Three Pronged Folder, Paper, Pencils (lots), Erasers (lots)
>Useful: Colored pens, pencils or highlighters

Course Pre-requisites: MAT 151 or an equivalent calculus I course.

Course Outcomes: Students who are successful in MTH 154 will be able to:
- Use various integration techniques including substitution, integration by parts, trigonometric substitutions, partial fractions, and the use of integral tables.
- Solve applied problems using integrals, including geometry of solids of revolution, finding mass, work, fluid pressure and net change.
- Solve applied problems arising from basic differential equations including equations of motion and exponential growth and decay.
- Identify, manipulate and test the convergence of infinite series, including the Taylor and McClaurin series.
- Perform calculus on functions in parametric and polar forms

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 154 contributes to the following Associate Degree Outcome:
- GEO 3 Computational skills and understanding appropriate to the program of study.

Course Requirements

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

- ♦ **Homework:**
  Practice problems from the textbook will be given to you as a list for each unit. These problems should be completed as we progress through the material, and I will answer questions about them at the beginning of class each day.
  - ✓ When you do your homework, you must show the solution method. Lists of answers alone will not be given credit.
  - ✓ Problems must be completed by the test date for each unit, and handed in to me at the beginning of class on the day of the test.
  - ✓ Homework folders will be graded for completeness. You will receive credit for a problem only if the supporting work is shown.

- ♦ **Classwork:**
  Classwork consists of practice problems worked during class; there will be some form of classwork nearly every day.
  - ✓ Classwork is due at the end of the class or in some cases the next class period, and cannot be made up if you miss class. I will drop your 3 lowest classwork grades at the end of the semester.
  - ✓ 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 taken in class.**
  - o No books or notes may be used other than those provided by the instructor.
  - o Only stand-alone calculators (TI-84, TI-Inspire, TI-89 or similar) can be used on tests.
  - o If you must miss class on a test day, 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

♦ **Classwork: 20% of final grade**
   o Your grades on in-class assignments will contribute 10%. Your lowest three classwork scores will be dropped. Missed classwork cannot be made up.

♦ **Course Exams: 80% of final grade.**
   o Each of the six unit test grades will count as 10% of your final grade.
   o Your final exam will count as 20% of your final grade.

♦ **Homework Grade**:
   o Your seven homework folders (one per unit) will be graded for completeness according to the instructions given in the previous section of this document.
   o Your grades on your homework folders will be averaged to determine your grade for this category.
   o You may use your average homework grade to replace your lowest unit test grade (if higher). The homework grade may not be used to replace the final exam.

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

Your grades for individual assignments as well as your overall course average will be stored and updated on the Jackson College course management system known as JetNet. You will be shown how to log in to JetNet and view your grades during one of our class meetings early in the semester.

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:
  o V: Verifies that you are participating and your work so far has been acceptable.
  o 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.
  o 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**:
  o Audits must be registered by you during the first week of class. You will not receive a grade or credit for the class.
  o Because courses vary in length, it is **critical** that you check the last day to drop or withdraw by going to www.jccmi.edu , under 'Quick Links' choose "Drop Classes".
  o Although your instructor may withdraw you for non-participation before midterm, only the student can initiate a withdrawal after midterm.
  o 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. 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.

Calendar FL 19

Date	Topic(s)
T 9/3	6.2 Area Between Curves
R 9/5	6.3 Solids of Revolution: Volumes by Disk and Washer Methods
T 9/10	6.4 Solids of Revolution: Volumes by Shell Method 6.5 Length of a Curve
R 9/12	6.6 Solids of Revolution: Surface Area Review Unit 1
T 9/17	Test 1 6.1A Motion on a Line
R 9/19	6.1B Net Change and Future Value 6.7A Mass, Moment and Center of Mass in One Dimension
T 9/24	6.7B Work
R 9/26	6.7C Fluid Force and Pressure 6.8 Definition of the Natural Logarithm
T 10/1	6.9 Exponential Growth
R 10/3	6.10 Hyperbolic and Inverse Hyperbolic Functions Review Unit 2
T 10/8	Test 2 7.1 Integration: Basic Approaches
R 10/10	7.2 Integration by Parts 7.3A Integrating Powers of Sine and Cosine
T 10/15	7.3B Integrating Powers of Tangent and Secant 7.4 Integration by Trig Substitution
R 10/17	7.5 Integration by Partial Fractions
T 10/22	7.6 Using Tables of Integrals Review Unit 3
R 10/24	Test 3 7.7 Numerical Integration
T 10/29	4.9 L'Hopital's Rule 7.8 Improper Integrals
R 10/31	7.8 Improper Integrals 7.9 Introduction to Differential Equations
T 11/5	Take Home Test 4 Assigned 8.1 Overview of Sequences and Series
R 11/7	8.2 Sequences 8.3 Infinite Series
T 11/12	8.4 Series Convergence: Divergence and Integral Tests 8.5 Series Convergence: Ratio and Root Tests
R 11/14	8.5 Series Convergence: Comparison and Limit Comparison Tests 8.6 Series Convergence: Alternating Series Test

T 11/19	Mixed Series Tests Review Unit 5
R 11/21	Test 5 9.1 Approximating Functions with Taylor Polynomials
T 11/26	9.2 Properties of Power Series 9.3 Taylor Series
T 12/3	10.1 Parametric Equations
R 12/5	10.2 Polar Coordinates
T 12/10	10.3 Calculus with Polar Coordinates Review Unit 6
R 12/12	Test 6 10.4 Conic Sections
T 12/17	Review
R 12/19	Final Exam