

Math 122 – Integral Calculus

Spring Semester 2019

January 9 – April 26

Instructor. Dr. Leigh C. Becker

E-mail. beckerl@rhodes.edu

Course web address. <https://www.brainiactutoring.com/calculusii>

Phone. 901-337-0753

Office. 422 Ohlendorf Hall

Office Hours. M W F 9:00 – 10:00

To make an appointment, either text me at 901-337-0753 or email me at beckerl@rhodes.edu.

Course Description.

This course is a continuation of Math 112 appropriate for any student who has taken a course covering differential calculus and using trigonometric functions. Topics include the definite and indefinite integral, the Fundamental Theorem of Calculus, techniques of integration, and applications of integration. (Credits: 4. Degree Requirements: F6)

Prerequisites.

Either of the following: Math 112, Math 115, Math 121, a high-school course that covered derivatives.

Class Schedule.

Math 122-02 (CRN 29829) meets M W F from 8:00–8:50 in 119 Briggs Hall.

Textbook and Syllabus.

Stewart: *Single Variable Calculus, Early Transcendentals*, 8th edition or Stewart: *Calculus, Early Transcendentals*, 8th edition.

Chapters	Sections
Chapter 3. Differentiation Rules	▪ Sections 3.5 & 3.9
Chapter 4. Applications of Differentiation	▪ Sections 4.2 & 4.9
Chapter 5. Integrals	▪ Sections 5.1 – 5.5
Chapter 6. Applications of Integration	▪ Sections 6.1 & 6.2
Chapter 7. Techniques of Integration	▪ Sections 7.1 – 7.5; 7.7; 7.8
Chapter 8. Further Applications of Integration	▪ Section 8.1
Chapter 9. Differential Equations	▪ Sections 9.1 & 9.3
Optional (as time permits)	▪ Sections 6.3, 6.4, 6.5, 7.6, 8.2, 8.3, 8.4, 8.5, 9.2, 9.4, 9.5, 9.6, 14.1, 14.3, 15.1

Classroom Policies and Attendance.

Please bring your notebook and textbook (or digital version), straightedge, and pencils to each and every class. Be seated before class begins. Do not sharpen pencils during class. Please take care of any personal business before the start of class so that you do not have to leave the room during class (thereby interrupting the attention of everyone else), unless there is an emergency.

If you bring a phone to class, please turn it off or put it on a silent setting before the start of class. You may not listen to an iPod, smartphone, or other such devices during classes or exams. The use of these electronic devices during class is inconsiderate and a detriment to learning.

I encourage you to take class notes, to be an active listener, and to ask questions. However, if your questions take up too much class time, it would be best to come to my office or to go to the MSC (Math Support Center) for help in view of time constraints and out of consideration for other students. Talking is not allowed unless you raise your hand and are given permission. It should be clear that talking to someone else during class is impolite and disruptive to the learning process. Finally, class is not over until I dismiss you.

Woody Allen once said that 90% of life is just showing up. Take this to heart. If you are going to succeed in a mathematics course, or for that matter, in any science or engineering course, you must come to class—prepared and ready to listen, think, and participate. In my classes, attendance is mandatory! At the beginning of every class, I will hand out an “Attendance M122” sheet. Do not forget to sign it; otherwise, you will be marked absent. If you are tardy, remind me after class to change “absent” to “0.5 absent.” If you absolutely have to miss a class, obtain the notes from a classmate and study them. If these notes are unclear, see me for further assistance or clarification. It is your responsibility to keep up with the assignments, which can be found on my web site: <https://www.brainiactutoring.com/calculusii>. If you have questions or need additional information, email me at beckerl@rhodes.edu.

In the Rhodes College Catalog, you will find the following statement: “Specific attendance policies are set by individual instructors, who state them in the course syllabus and during the first class session.” My attendance policy is as follows: A student will be allowed three unexcused absences throughout the semester. (An excused absence must be discussed with me in advance if possible; documentation may be requested.) However, if by midterm a student has already accumulated two or more unexcused absences, then the student’s midterm grade will be “F” (failure). If a student accumulates four or more unexcused absences at some point during the semester, then I may take action as outlined under “Academic Regulations: Class Attendance” in the catalogue, which is to make a written request to the Dean of the Faculty that the student be removed from the course with a grade of F.

Homework. You are expected to do all of the assigned homework, even if an assignment is not graded. This is a crucial part of the course and the best way to learn mathematics and to prepare for tests and quizzes. Any graded homework will be recorded as a quiz grade.

Quizzes. Generally speaking, quiz problems will be taken directly (or with slight alteration) from the assigned practice problems. There will be no make-ups for quizzes unless you have a valid, verifiable excuse. If you are absent or tardy for a particular quiz, your score for that quiz will be “0”. However, if you accumulate no more than three unexcused absences during the semester, then your lowest quiz grade will be dropped.

Tests. There will be three (each 50 minutes long) tests. If you miss a test, you will not be allowed to make it up unless you have a valid, verifiable excuse and notify me as soon as possible. If you know in advance that you will be absent on a certain day (e.g., for college-sanctioned events, such as varsity athletics, off-campus competition related to courses, etc.), please inform me ahead of time. If an emergency arises, please

text me the day of the absence; if that is not possible, text me as soon as possible. Or inform me by e-mail (beckerl@rhodes.edu).

N.B. If you take (i) all three tests when they are scheduled, (ii) have no more than three unexcused absences throughout the semester, and (iii) your Final Exam score exceeds your lowest test score, then it will replace the lowest test score.

Expectations.

- Take notes in class. Annotate and study them before the next lecture.
- Read the textbook.
- Study the material associated with each lecture.

Final Exam.

The final exam in this course is comprehensive and closed-book (no notes, no calculators, etc.). Under no circumstances will a student be allowed to take it before the following scheduled date (please keep this in mind when making travel arrangements): *Tuesday, April 30, 8:30 a.m.*

Final Grade. Your semester average (*Sem Avg*) will be computed using the following formula:

$$\text{Sem Avg} = .20 \times [\text{Avg of quizzes}] + .60 \times [\text{Avg of tests}] + .20 [\text{Final Exam}].$$

The final letter grade will be assigned to $x = \text{Sem Avg}$ as follows:

A	[93, 100]	B-	[80, 83]	D+	[67, 70]
A-	[90, 93]	C+	[77, 80]	D	[63, 67]
B+	[87, 90]	C	[73, 77]	D-	[60, 63]
B	[83, 87]	C-	[70, 73]	F	[0, 60]

Honor Code.

All of your work in this course must be in accordance with the Rhodes College Honor Code (cf. <http://handbook.rhodes.edu/honor-council-constitution>). Academic dishonesty includes—but is not limited to—copying a portion of another person’s homework, cheating on quizzes and exams, using websites that have solutions of the problems in our textbook, and so on. For such offenses, a failing grade will be given to the dishonest work or in egregious situations for the entire course. Furthermore, my faculty contract states: “... you must bring to the attention of the Honor Council any situation that you believe constitutes a violation of this Code.”

Access and Accommodations. (www.rhodes.edu/accessibility).

If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so we can discuss options. If you have already established accommodations with Student Accessibility Services (SAS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course.

If you have not yet established services through SAS, but have a condition that requires accommodations, please contact SAS at 901-843-3885, Burrow Hall 4th floor. SAS offers resources and coordinates reasonable accommodations for students with disabilities and temporary conditions. Reasonable accommodations are established through an interactive process between you, SAS, and your faculty. It is the policy and practice of Rhodes College to create inclusive, equitable, and accessible learning environments for all students.