Math 5B Calculus II

 Welcome to Math 5B at Reedley College! I hope you are excited to start a new semester and I look forward to working with you. Over the next eighteen weeks you will likely experience ups and downs, but you are not in this alone. So, take every opportunity to seek help from me, Reedley College tutors, and other students in class. Persistence, hard work, and a good support system are key. If you put in the time and effort, I know you will be able to succeed in this course!

Instructor: Julie Kehoe

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Class Meetings

I am offering a Zoom session every week to review the week's topics. While I highly recommend you attend so you can ask questions, it is NOT required. I will record each session and post it in Canvas so you can watch it at your convenience. **Look for extra review sessions on exam weeks!**

- Wednesday's 10:00-11:10am
- Zoom Link: https://cccconfer.zoom.us/j/97572284507

Virtual Student Hours

I will have drop in Zoom sessions each week at the times listed below. Drop in to Zoom any time during these hours or contact me through email, Canvas messaging, or Canvas Chat. I tried to pick a variety of times when I am available, but if none of them work for you contact me to make an appointment for a different time as needed. Monday's 9:00-10:00am

- Wednesday's 11:10am-12:00pm
- Thursday's 3:00-4:00pm
- Zoom Link: https://cccconfer.zoom.us/j/97572284507

Course Description

Calculus II is a second course in differential and integral calculus of a single variable. Topics include techniques of integration, infinite sequences and series, polar and parametric equations, and applications of integration. PREREQUISITES: Mathematics 5A. ADVISORIES: English 1A or 1AH. (A, CSU-GE, UC, I) (C-ID MATH 220)

Student Learning Outcomes

 Upon completion of this course, students will be able to:

1. Evaluate definite integrals using the fundamental theorem of calculus and relate definite integrals to areas and Riemann sums.
2. Apply the use of integrals to problems involving volumes of solids, arc length, surface area, and other applications from science and/or engineering.
3. Find antiderivatives using a variety of techniques of integration.
4. Determine the convergence or divergence of infinite series by using appropriate tests and use infinite series to find polynomial representations of transcendental functions.
5. Analyze conic sections and mathematical relationships given in parametric and polar forms.

Time Commitment & Recommended Skills

This class will take approximately 12 hours per week. Your time commitment will vary based upon your own level of experience with Canvas and other web technologies. If web technologies are not familiar please expect to spend additional hours on the course.

Although this class is designed for novice users you should have the following:

- Basic computer skills (word processing, e-mail, file management)
- Basic Internet skills (use of browser, searches, uploading/downloading files)
- An open mind and willingness to try new things

If you require any special accommodations for this class, please contact me soon as possible to ensure a quality learning experience.

Course Materials

Textbook

This is a zero textbook cost class! The textbooks and homework system (MyOpenMath) we will use in this class are free and available online. For each section we cover, I will link you directly to relevant textbook materials, videos, and lecture notes in the study materials pages in modules.

Calculators

We will be doing a fair amount of graphing and calculations in this class that will require a graphing calculator, such as a TI-83 or 84, or its equivalent. Go to the Calculators page in the Canvas Week 0 module for more information on getting a calculator, as well as free online programs that can substitute for one.

Technical Requirements

- Fairly recent Mac or PC with a current operating system.
- Current browser (Firefox, or Chrome are preferable) do not use internet explorer
- Reliable and easily accessible internet connection, preferably broadband (DSL speeds) -- for viewing online videos

Technical Issues

Canvas Help

Click on the question mark icon at the bottom of the global navigation bar on the far-left sidebar of in Canvas to access links to Canvas Guides.

Student Help Desk

Get help with logging in to Canvas, email, WebAdvisor, or other local systems at 559.499.6070

MyOpenMath Help

If you have issues with MyOpenMath please contact me. The Student Help desk probably won't be able to help with this.

Important Dates

- Monday, January 11 – Start of Spring 2021 semester
- Monday, January 18 – Martin Luther King, Jr. Day (no classes, campus closed)
- Friday, January 22 - Last day to drop a full-term class for a full refund
- Friday, January 29 – Last Day to Add a class or Drop without a 'W'
- Sunday, January 31 - Last Day to Drop on WebAdvisor without a 'W'
- Friday, February 12 - Lincoln Day observance (no classes, campus closed)
- Monday, February 15 - Washington Day observance (no classes, campus closed)
- Friday, March 12 – Last Day to Drop with a 'W' (Letter grade assigned after this date)
- Monday-Friday, March 29-April 1 – Spring Break (no classes, campus open)
- Wednesday, May 19 – Final exam due

- Friday, May 21 – End of Spring 2021 semester

Communication

Due to the COVID-19 pandemic, this course will be delivered entirely online. This is not a self-paced course and all assignments have deadlines. It is important to stay up to date in this class by checking the calendar, emails, announcements, and discussion forums. If you have a smartphone, I highly recommend downloading the Canvas Student app. **Also, update your notification settings in your account (top left sidebar under the RC logo in Canvas) to ensure that you get notifications from me.**

There are a variety of ways that you can get in contact with me, however, the Canvas Inbox is the best way to get a quick response. If you have not heard back from me within two days then contact me again.

Virtual student hours are listed towards the top of this syllabus. To attend student hours through Zoom, click on this Zoom Link**. If I am not logged into Zoom when you arrive, don't leave!** An email will be sent to me automatically that someone is waiting and I will log in shortly. **Download the Zoom app to join Zoom through your smartphone or tablet.**

Assignments & Exams

Because this course is 100% online, you will need to have a reliable and easily accessible internet connection. I am happy to work with you when technical problems arise but don't wait until the night of a deadline to submit an assignment. **Don't think of the due date as the day to start an assignment. The due date is the last chance to submit it on time.**

Homework Practice

Weekly modules have a set of specified outcomes, study materials, and homework practice. You have an unlimited number of attempts on homework assignments with only your highest score counting toward your grade. **You can leave a homework assignment at any time and come back later to complete it. Your grade in Canvas will update as you complete problems.**

Weekly Discussion Assignment

There will be at least one discussion assignment each week to enable communication between you and other students in the class. Use these forums to connect with others and address questions or issues that may arise.

Exams

There will be five exams and a cumulative final in this course. Exams have a time limit but you have two attempts up until the due date with only your highest score counting toward your grade. You will also be required to submit your written work on each exam, which will be graded separately

Note: Do not log out in the middle of an exam or your score will be automatically recorded and it will be counted as one of your attempts.

Late Work & Extensions

- **Homework** - You can continue to work on homework assignments past their due date with a 40% penalty until the time of the final exam. **Select "Use LatePass" to open up a homework practice after its due date.**
- **Discussions** - Weekly discussion assignments will be available for two days after their due date (except in the final week).
- **Exams** - Exams must be taken by their due date. You will be allowed an extension on one exam over the course of the semester, no questions asked. You will have one additional week after the assignment was originally due to complete it. Email me to request an extension on an exam.
- **No work will be accepted after Wednesday May 19, 2021.**

Grading & Drop Policy

Grading Scale:

- A - 89.5% - above
- B - 79.5%-89.4%
- C - 69.5%-79.4%
- D - 59.5%-69.4%
- F - 59.4% and below

Grading:

- 40% Exams and Quizzes
- 40% Homework Practice
- 20% Discussions

Grades will be tracked in the Canvas Gradebook.

Your first assignment in this course is the syllabus quiz. If you have not logged on to Canvas and completed the Syllabus Quiz by Wednesday, August 12th at 11:59pm then you will be considered a no show and dropped from the class.

I will be checking regularly to ensure you are keeping up with the schedule of assignments and contacting you through Starfish if you are falling behind. You MAY be dropped for any of the following reasons:

- Failing to complete the Syllabus Quiz on time
- Consistently missing assignments
- Missing an entire week of assignments
- Missing more than one exam

Please let me know if you are having trouble completing assignments for any reason. The more I know, the more I can help you. Considering dropping a class? Read this article first.

Support Services

Ways to get help from me!

- Attend virtual office hours Tuesday through Thursday 10:00-11:00am
- I am just an email away if you have questions.
- I can video chat with you using Zoom by appointment.
- Message me through Canvas. (Don't forget to download the Canvas Student app!)

Our Own Embedded Tutor and the Reedley College Math Center

The Math Center is a free tutoring resource available to all Reedley College math students. It is currently offering online tutoring with our own Reedley College embedded tutors, other student tutors, and math faculty. Please self-enroll in the Math Center Canvas course to view the schedule for drop-in tutoring, available Monday-Friday 8am-5pm. If you want to plan ahead, or need help in the evenings, or on weekends, connect with a Reedley College tutor by making an appointment through Canvas Messaging.

Direct link to self-enroll: **https://scccd.instructure.com/enroll/TTH4JM**

Learning Resource Center

The Tutorial Center is a free tutoring resource available to all Reedley College students as well. The center offers tutoring facilitated by well-qualified student tutors and online tutoring in a variety of subjects (not just math!).

Smarthinking Online Tutoring

Smarthinking is a free online tutoring service available in Canvas. Go to the Smarthinking page in the Canvas Week 0 module to learn more!

Accommodations for Students with Disabilities

Disabled Students Programs & Services (DSP&S) is designed to provide specialized services and accommodations that assist students with documented physical, psychological and learning disabilities reach their maximum potential while achieving their educational goals. Staff specialists interact with all areas of the campus to eliminate physical, academic and attitudinal barriers. Disabled Students Programs & Services takes a personal interest in meeting the special needs of students with disabilities.

If you have a verified need for an academic accommodation or materials in alternate media (i.e., Braille, large print, electronic text, etc.) per the Americans with Disabilities Act (ADA) or Section 504 of the Rehabilitation Act, please contact me as soon as possible.

Academic Honesty

Students are entitled to the best education that the college can make available to them, and it is their responsibility to ensure that this education is honestly attained. Because cheating and collusion in dishonest activities erode the integrity of the college, each student is expected to exert an entirely honest effort in all academic endeavors. Academic dishonesty in any form is a very serious offense and will incur serious consequences, including but not limited to receiving a grade of F on the assignment or in the course.

Cheating is the act or attempted act of taking an examination or performing an assigned in a fraudulent or deceptive manner, such as having improper access to answers, in an attempt to gain an unearned academic advantage. Cheating may include, but is not limited to, copying from another's work, supplying one's work to another, using or displaying notes or devices inappropriate to the conditions of the examination, or allowing someone other than the officially enrolled student to represent the student.

Tentative Course Schedule

Week 0 Getting Started

- Review Course Materials
- Class Norms Discussion Board

Week 1 Integration by Parts - January 11-17

- Syllabus Quiz
- Week 1 Check-in and Introductions (Discussion)
- Review of Calculus I Study Materials
- 8.2 Study Materials
- Review and 8.2 Homework Practice

Week 2 Trigonometric Integrals - January 18-24

- 8.3-8.4 Study Materials
- 8.3-8.4 Homework Practice
- Week 2 Discussion

Week 3 Partial Fractions - January 25-31

- 8.5-8.6 Study Materials
- 8.5-8.6 Homework Practice
- Week 3 Discussion

Week 4 Other Integration Methods - February 1-7

- Exam 1 Review
- Exam 1
- 8.7 Study Materials
- 8.7 Homework Practice
- Week 4 Discussion

Week 5 Numerical Methods and Improper Integrals - February 8-14

- 8.8-8.9 Study Materials
- 8.8-8.9 Homework Practice
- Week 5 Discussion

Week 6 Area and Volume - February 15-21

- 6.2-6.3 Study Materials
- 6.2-6.3 Homework Practice
- Week 6 Discussion

Week 7 Volumes: Shell Method - February 22-28

- 6.4 Study Materials
- 6.4 Homework Practice
- Exam 2 Review
- Exam 2
- Week 7 Discussion

Week 8 Applications of Integration - March 1-7

- 6.5-6.6 Study Materials
- 6.5-6.6 Homework Practice
- Week 8 Discussion

Week 9 Separable Equations - March 8-14

- 9.3, 10.2 Study Materials
- 9.3, 10.2 Homework Practice
- Week 9 Discussion

Week 10 Series - March 15-21

- 10.3 Study Materials
- 10.3 Homework Practice

- Exam 3 Review
- Exam 3
- Week 10 Discussion

Week 11 Convergence Tests - March 22-28

- 10.4-10.5 Study Materials
- 10.4-10.5 Homework Practice
- Week 11 Discussion

Spring Break – March 29-April 4

Week 12 More Convergence Tests - April 5-11

- 10.6-10.7 Study Materials
- 10.6-10.7 Homework Practice
- Week 12 Discussion

Week 13 Choosing a Convergence Test - April 12-18

- 10.8 Study Materials
- 10.8 Homework Practice
- Week 13 Discussion
- Exam 4 Review
- Exam 4

Week 14 Power Series - April 19-25

- 11.1-11.2 Study Materials
- 11.1-11.2 Homework Practice
- Week 14 Discussion

Week 15 Parametric Equations - April 26 - May 2

- 11.3, 12.1 Study Materials
- 11.3, 12.1 Homework Practice
- Week 15 Discussion

Week 16 Polar Equations - May 3-9

- 12.2 Study Materials
- 12.2 Homework Practice
- Exam 5 Review
- Exam 5
- Week 16 Discussion

Week 17 Conic Sections - May 10-16

- 12.3-12.4 Study Materials
- 12.3-12.4 Homework Practice
- Week 17 Discussion

Week 18 Final Exam - May 19

- Final Exam
- All late assignment due