

# Math 5B Calculus II

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#52056 Spring 2023

This class meets Mondays and Wednesdays 9:30-10:50am in CCI 200

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 18 weeks, I will be available to assist you and provide guidance when you need it. I also encourage you to meet with our class tutor as well as other math tutors from the Math Center and Learning Resource Center at Reedley College. It is common to feel like you are on your own in an online class, but we are all in this together. Our class is a community that's here to support each other's learning and growth, so don't be afraid to ask for help or help others.

Success in this course depends heavily on your personal health and wellbeing. Recognize that stress is an expected part of the college experience, and it often can be compounded by unexpected setbacks or life changes outside the classroom. I know the past few years have been exceptionally unexpected. Your other instructors and I strongly encourage you to reframe challenges as an unavoidable pathway to success. Reflect on your role in taking care of yourself throughout the term, before the demands of exams and projects reach their peak. Please feel free to reach out to me about any difficulty you may be having that may impact your performance in this course as soon as it occurs and before it becomes unmanageable. In addition to your academic advisor, I strongly encourage you to contact the many other support services on campus that stand ready to assist you.

## About Your Instructor

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**Instructor:** Julie Kehoe

**Email:** [Julie.kehoe@reedleycollege.edu](mailto:Julie.kehoe@reedleycollege.edu)

**Office:** New Math & Sciences Building, MSCI-134

**Student Hours:** Come visit me in my office

- Tuesdays 1:00-2:00pm ([Zoom Link](#))
- Wednesdays 11:00am-12:00pm (In Person)
- Fridays 10:00-11:00am ([Zoom Link](#))

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 response. If you have not heard back from me within two days then contact me again.

## Course Description

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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

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

1. Evaluate definite and indefinite integrals using various techniques.
2. Apply the use of integrals to problems involving areas and volumes of solids.
3. Determine the convergence of infinite series by using the appropriate test.
4. Differentiate and integrate functions in polar and parametric form.

## Productive Struggle and the Learning Process

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You are all highly capable of learning the material in this course and my goal is to provide you with the materials and support you need to be successful. However, there will be times when you struggle with the concepts in this course. Struggling is normal and an important part of the learning process. But if you find yourself spending a lot of time on something without making any progress, it is a good idea to walk away for a bit. Don't allow yourself to get frustrated or give up entirely. Instead, reach out by sending me a question, posting on the community center discussion boards, meeting with a tutor, or just taking a break for a few hours or a day.

Time management is also important to success. Because this course is 18 weeks, the expected time commitment is about **12 hours per week**. However, we all learn in different ways and at different rates, so your individual time commitment will vary. So, make sure to create daily or weekly goals for yourself and set aside enough time each week to work on this course. This will help to reduce stress and keep you on track to pass the class.

## Course Materials

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### Textbook

**This is a zero textbook cost class!** The resources and homework system, MyOpenMath, are free and available in our Canvas course. For each section we cover, I will link you directly to relevant textbook materials, videos, and lecture notes in the study materials pages under modules.

### Calculators

We will be doing a fair amount of graphing and calculations in this class and a graphing calculator, such as a TI-83 or 84, or its equivalent is highly recommended.

### 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 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

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- Monday, January 9 - Start of 18-week Spring Semester
- Monday, January 16 - Martin Luther King, Jr Day observed (no classes, campus closed)
- Friday, January 20 - Last day to drop for a full refund
- **Sunday, January 29 - Last Day to Drop without a 'W'**
- Friday, February 17 - Lincoln Day observed (no classes, campus closed)
- Monday, February 20 - Washington Day observed (no classes, campus closed)
- **Friday, March 10 - Last Day to Drop with a 'W' (Letter grades assigned if enrolled after this date)**

- Monday-Friday, April 3-7 - Spring Break (no classes, campus closed)
- Friday, May 19 - End of 18-week Fall Semester

## Assignments & Exams

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### My Grading Philosophy

Your grade in this class will be based entirely on the math skills you learn this semester. Common elements such as **homework, participation, effort, extra credit, and turning assignments in 'on time' will not be part of your grade.** This will likely be very different from what you are used to, but the grading system outlined below is designed to be bias-resistant, motivating, and an accurate representation of **what you have learned** in this class.

This may sound a little scary, but keep reading!

### Homework Practice

Unit modules have a set of specified skills to learn with study materials, homework, and guided practice to help you master these skills. These assignments are your chance to practice, to make mistakes, to learn. Making mistakes is part of the process of learning math and is expected. For this reason, there are an unlimited number of attempts on homework questions and **homework scores will NOT be included in your grade. I still expect to see you doing homework regularly, but only as much as you need to learn the concepts.** There are due dates listed for each of these assignments to help keep you on pace to complete the class by the last day, but they will be available for the entirety of the course.

### Classroom Community

There will be at least one discussion forum each unit to enable communication between you and other students in the class. Use these forums to connect with me and your classmates, ask questions, and share helpful resources with each other. There will also be some discussion boards to help you understand what is expected to demonstrate skill mastery and for me to get feedback on the rubrics I have created.

### Exams & Retakes

Each unit will end with an exam on the skills covered. The exams are your chance to show what you have learned. The work you submit for your exams will be used to determine your grade in the class, so make sure to review the rubric for each skill and show work that clearly explains your solution.

If you have not yet mastered a skill in the exam, that's ok! Retake exams are available as additional opportunities to show you have learned the material. Before attempting a retake exam, I expect you to review my feedback from your first attempt, study, work on homework, and/or get tutoring help. If you show improvement on a retake, then your grade on that skill will be replaced to reflect your best work.

The final exam is the last retake and your last opportunity to demonstrate you have mastered the skills of the course. For any retake exam, including the final exam, you will only need to complete problems that assess the skills you wish to improve your score on. For example, if you only have one skill to improve on, you only have to do one problem on the retake.

### Graded Assignments & Final Grades:

Your grade in this class will be based on your demonstrated level of understanding of each skill assessed in exams and exam retakes. Each skill is assessed using a 4-point rubric that can be found on the in the Exam Work Submission assignments. Final grades are calculated by averaging the assessment level of all skills in the course using the following scale:

- **A** - 3.50 - 4.00 (87.5%-100%)
- **B** - 2.75 - 3.49 (68.75%-87.4%)

- **C** - 2.00 - 2.74 (50%-68.74%)
- **D** - 1.25 - 1.99 (31.25%-49.9%)
- **F** - 1.24 and below (below 31.25%)

Grades will be tracked in the Canvas Gradebook. Nongraded assignments like the Homework Practices and discussion boards will also appear in the gradebook, but only to track progress. They are not used to determine your grade in the class.

Your first assignment in this course is the Syllabus Scavenger Hunt. I want to make sure everyone gets a good start in the class, so if you have not completed it by Tuesday, January 10th, I will be checking in with you on Wednesday. I will be monitoring your progress regularly to ensure you are keeping up with the schedule of assignments and contacting you if you are falling behind.

I hope that you can see I will do everything I can to support you in being successful not just in this class but in your college and career goals. Because of this, if you begin to fall too far behind and aren't working towards completing the assignments, I will need to make the assumption you do not intend to complete the course. If this happens then I will drop you from the class so that you can take the course again at a time that allows you to be more successful.

**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

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### Ways to get help from me!

- **Email** - I am just an email away if you have questions.
- **Student Hours** - I can video chat with you using Zoom by appointment or come see me during my student hours
  - Tuesdays 1:00-2:00pm (Zoom)
  - Wednesdays 11:00am-12:00pm (MSCI 134 - In the Math Center)
  - Thursdays 10:00-11:00am (Zoom)
- **Canvas Messaging** - 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 tutors and math faculty. Please [self-enroll in the Math Center Canvas course](#) to view the schedule for drop-in tutoring. 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.

### 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

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You are a member of an academic community at Reedley College. One of the most important values of an academic community is the balance between the free flow of ideas and the respect for the intellectual property of others. Any test, paper or report submitted by you and that bears your name is presumed to be your own original work. Cheating may include, but is not limited to, using unapproved technology to solve a problem, 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. If you are not clear about the expectations for completing an assignment or taking a test or examination, be sure to seek clarification from your instructor beforehand. Finally, you should keep in mind that as a member of the campus community, you are expected to demonstrate integrity in all of your academic endeavors and will be evaluated on your own merits. The consequences of cheating and academic dishonesty, including a formal discipline file, are simply not worth it.

## Starfish

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This class will participate in Starfish Early Alert, which promotes student success through coordination and communication among students, instructors, counselors, and campus support service departments. If I observe that you are experiencing difficulties in the course (attendance concerns, missing assignments, etc.), I may send an email to your sccd.edu email account through the Starfish Early Alert system. My message will tell you about my concerns and ask you to contact me regarding the concern and strategies that may help you be successful in the course. A counselor or special program may also follow-up with you regarding the concern. In addition, if I observe that you are doing well in my course, you may also receive "kudos" from me acknowledging your efforts. Starfish Early Alert provides notices by email and can be access on the left sidebar of this Canvas course.

## Tentative Course Schedule

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Please note, this schedule is tentative and may change if necessary. **Graded assignments are bold.**

### Unit 0 Getting Started

- Review Course Materials
- Syllabus Scavenger Hunt
- Getting to Know You Survey
- Class Norms Forum
- Class Introductions

### Unit 1 Integration Techniques

- Calculus I Review and 1.1-1.4 Study Materials
- Calculus I Review and 1.1-1.4 Homework Practice
- Integration by Parts Rubric Discussion Board
- **Exam 1 - Due February 5**

### Unit 2 More Integration Techniques

- Unit 2 Community Center Forum
- 2.1-2.3 Study Materials
- 2.1-2.3 Homework Practice
- **Exam 2 - Due February 19**

### Unit 3 Applications of Integration

- Unit 3 Community Center Forum
- 3.1-3.3 Study Materials
- 3.1-3.3 Homework Practice
- **Exam 3 - Due March 12**

### Unit 4 Physical Applications

- Unit 4 Community Center Forum
- 4.1-4.2 Study Materials
- 4.1-4.2 Homework Practice
- **Exam 4 - Due March 19**

### Unit 5 Sequences & Series

- Unit 5 Community Center Forum
- 5.1-5.3 Study Materials
- 5.1-5.3 Homework Practice
- **Exam 5 - Due April 2**

### Unit 6 Series Convergence Tests

- Unit 6 Community Center Forum
- 6.1-6.3 Study Materials
- 6.1-6.3 Homework Practice
- **Exam 6 - Due April 23**

### Unit 7 Power Series

- Unit 7 Community Center Forum
- 7.1-7.2 Study Materials
- 7.1-7.2 Homework Practice
- **Exam 7 - Due May 7**

### Unit 8 Parametric and Polar Equations

- Unit 8 Community Center Forum
- 8.1-8.3 Study Materials
- 8.1-8.3 Homework Practice
- **Exam 8 - Due May 14**

Final Exam - Due May 17