

**Ball State University, Department of Mathematical Sciences**

**Course: MATH 166: Calculus 2 (4 hrs.)**

Spring 2026, Section 2 CRN 21012

<b>Instructor</b>	Dr. Yayuan Xiao	
<b>Meeting time</b>	MTRF 11 - 11:50 AM	01/05/2026 – 05/01/2026
<b>Meeting room</b>	RB 106	
<b>Office hours</b>	<b>MTR 12:00 – 12:45 PM (RB 465) or by appointment.</b> You will be notified by BSU email if office hours need to change. In addition, a graduate assistant will offer office hours for us. The details (time and location) will be given in Week 2.	

**E-mail:** [yxiao3@bsu.edu](mailto:yxiao3@bsu.edu)

- I strive to respond to emails within 24 hours on weekdays. If you haven't received a reply within that timeframe, please send a reminder.
- Please avoid using previous email threads for unrelated questions. If your question pertains to the subject of an email, reply directly to that email. For other inquiries, start a new email with the subject line (*166 - Your Question/Concern*).
- Email attachments sent with canvas may be missing. Please use your BSU or personal email to send an attachment if needed. In addition, all assignments that require file submissions need to be submitted via Canvas, not via email.

**Text and Materials: You are required to purchase one Cengage Unlimited subscription to use the ebook and the homework system in WebAssign**

- The text is *Calculus: Early Transcendentals, 9th edition, by Stewart/Clegg/Watson*. We will cover Chapter 6 - 11 with some sections omitted.
- You are required to use the eBook and homework system in WebAssign. To access these resources and enroll in our class on WebAssign, you must link your Cengage and Canvas accounts when you click on an assignment in Canvas for the first time. For detailed instructions, please refer to the page titled "**Materials Required for This Class**" in Module 0 on Canvas.
- Ebook is identical to the hard copy of the book. You can print pages from the ebook. You can decide for yourself whether you will need a hard copy of the textbook, which is an additional expense.

**Calculator: Calculators are not allowed on any exams.** Only a few homework problems require a calculator, you can use your phone calculator or an online calculator to complete those problems.

**Technology knowledge:**

- If you have technical questions about Canvas, please contact Ball State's Help Desk at 1-765-285-1517 or at [helpdesk@bsu.edu](mailto:helpdesk@bsu.edu).
- If you have any questions about WebAssign, please contact Cengage Customer Service at 800-354-9706

**Course Description:** Standard techniques of integration, applications of integral, numerical integration, sequences and series. Includes the use of graphing calculators and computer software.

**Course Rationale:** This course continues the study of calculus, which begins in MATH 165. Students planning to major in mathematics, engineering, physics, chemistry, or a related subject need this sequence.

**Prerequisites:** C- or better in MATH 165 or permission of the department chairperson.

**Course Objectives:** This course builds on the study of calculus introduced in MATH 165, exploring additional theory, techniques, and applications to develop new mathematical concepts. Applications across various fields will deepen students' understanding and enhance their ability to use calculus techniques to solve real-world problems.

Students will be able to:

- Recognize and solve problems involving integrals and applications of integrals using a variety of methods.
- Investigate sequences and series, with an emphasis on examining convergence.
- Solve problems involving separable differential equations.
- Solve problems related to parametric equations and polar coordinates, including curve plotting and conversion between polar and rectangular coordinates.

**Course Modality/Structure:** Class time will consist of traditional in-person lectures and some group work. A worksheet will be provided during class and will also be available in Canvas for each section.

**Exams:** There will be a total of **four** exams: two in-class midterm exams, one take-home exam, and a comprehensive final exam.

- **No calculator or formula sheet will be permitted on the in-class exam and the final exam.**
- All exams must be taken at their scheduled time. **The exception (makeup exam) will be considered only in the event of an unavoidable verifiable emergency.** If the makeup exam is later than the regular exam, then the makeup exam will be harder than the original exam.

**Homework.** Regular homework is assigned on WebAssign.

- It is your responsibility to check the due time of each homework.
- You are allowed to have 15 attempts on each WebAssign homework assignments.
- After the due time, you could click "**request for extension**" to request an extension within the assignment. A penalty of 25% deduction per day will be applied to assignments that are submitted after the due time.
- Your homework scores on WebAssign will be automatically synced to Canvas, which may take a few hours. Sometimes you may find there is a discrepancy between WebAssign score and Canvas score, then your score on WebAssign is your actual score of that assignment and these scores should be the same after 24 hours.

**In - Class Quizzes:** In some classes a quiz will be given.

- The quiz problem(s) will be similar to the homework problems or examples given in class. If you take the original quiz, then you are allowed to redo the quiz problem(s) as many times as necessary to get a perfect score before the date of the next exam.
- **No make-up quiz will be given if you miss the class (original quiz).** However, the lowest 3 quiz scores are allowed to be dropped.
- Exception (Make-up quizzes) will only be given for absences which are documented as university business, a funeral that meets student handbook criteria with documentation, or a documented medical situation. For more information, see [BSU Attendance Policies](#).

**Grades:**

- Midterm Exams and take-home exam count 45% of your final grade and the final exam represents 20%. Homework counts 20%, and in-class quizzes account for the remaining 15%.
- **How to calculate your final grade:** Let E, Q, H be the average percentage score of your exams, quizzes, and homework, and F denote the score of your final exam. Then  

$$\text{Your final course grade} = E*0.45+H*0.2+Q*0.15+F*0.2.$$
- Your course grade is determined by the **grade scale:** Below 60: F; 60 - 63: D-; 63 - 66: D; 66 - 70: D+; 70 - 73: C-; 73 - 76: C; 76 - 80: C+; 80 - 83: B-; 83 - 86: B; 86 - 90: B+; 90 - 93: A-; Above 93: A. Grades in borderline cases will be determined at the discretion of the instructor.

## COURSE POLICY, EXPECTATIONS, AND ADDITIONAL INFORMATION

1. **Attendance.** Regular attendance is necessary for success on this course. When you miss a class, you are responsible for the material covered.  
Excused absences include: funeral or bereavement leave, jury duty, late course addition, military service, religious holidays, pregnancy leave, participation in University- or department-approved activities by student-athletes, and official university advisories. For these, make-up quizzes will be provided.  
Notify instructors in advance when possible (e.g., scheduled funeral) or as soon as possible after unplanned absences (e.g., illness). Documentation may be requested. See [BSU Attendance Policies](#) for details.
2. **Make-up exams.** All exams must be taken at their scheduled time. The exception (makeup exam) will be considered only in the event of an unavoidable verifiable emergency (i.e., a documented excuse as defined by BSU). For more information, please visit [Student Code](#)
3. **Academic integrity.** Students are expected to maintain academic integrity, which is essential to the educational process. Forms of academic dishonesty include, but are not limited to, copying sentences/paragraphs/pages of text/whole papers off the Internet, copying another student' answers, etc. In some cases, you are encouraged to consult external sources, but you must write up your own solution. **Academic dishonesty may result in the grade of "0" on the assignment and/or the course and/or the student may be reported to the Director of Student Rights and Community Standards.** For more information please visit [Student Academic Ethics Policy](#) and [Code of Student Rights and Responsibilities](#).

4. **University Statement.** We are committed to ensuring that all members of the community are welcome, through valuing the various experiences and worldviews represented at Ball State and among those we serve. We promote a culture of respect and civil discourse. If you need course adaptations or accommodations because of a disability, please contact the instructor of record as soon as possible. **Ball State's Disability Services Office** coordinates services for students with disabilities; documentation of a disability needs to be on file in that office before any accommodations can be provided. Disability Services can be contacted at 765-285-5293 or [dsd@bsu.edu](mailto:dsd@bsu.edu).
5. **Testing Accommodations.** In particular, testing accommodations for students with disabilities are available to students who have received appropriate documentation through Disability Services. Exams may be administered through the Learning Center as arranged by Disability Services.
6. **Mental health concerns:** The Ball State University Counseling Center offers free and confidential services to all students. The Counseling Center is located in Lucina Hall, Room 320. To schedule an appointment, you can contact us at 765-285-1736. Ball State now also offers a 24/7 Crisis Line, which can be reached at 765-285-HOPE (4673). The Crisis Line is a mental health resource for those who are struggling with any mental health concerns, including thoughts of self-harm and/or suicide.  
*At the Ball State Counseling Center, we see students for a variety of reasons, some of which include homesickness, relationship concerns, anxiety, and depression. At your first appointment, you will work with a therapist to create a plan that will connect you with resources that best fit your needs. We assist students with getting connected to therapy at our Center as well as connecting students to self-help resources, other on-campus resources, and community-based resources. All Ball State students also have access to several on-demand, self-help resources through a variety of different platforms. All of these resources, including a direct link to our website, can be found [here](#).*  
**The Basic Needs Hub:** If you are having difficulty affording enough food, do not have a safe and reliable place to sleep, and/or experiencing an emergency or crisis, help is available through the [Basic Needs Hub](#). The Basic Needs Hub has information, resources, and provides individualized support to students. To talk with a supportive staff member about your experience, receive one on one assistance, or learn more about resources, you can submit a [Basic Needs Assistance Form](#).
7. **Diversity.** BSU aspires to be a university that attracts and retains a diverse faculty, staff and student body. We are committed to ensuring that all members of the community are welcome, through valuing the various experiences and worldviews represented at Ball State and among those we serve. We promote a culture of respect and civil discourse as expressed in our Beneficence Pledge <https://www.bsu.edu/about/beneficence> and university resources <https://www.bsu.edu/campuslife/multicultural-center/resources>
8. **Student assistance and tips for success.** To earn the grade that you want, you may need to work diligently every day and frequently review previous material so you can be prepared for every exam. Do not hesitate to contact me if you have any questions or concerns about the course.
9. **Course withdrawal.** The course withdrawal period ends on **Thursday, March 19, 2026**. Before this date, students can select to receive a “W” for the course by completing and submitting the proper form. The instructor’s permission is not required. A grade “W” will not be calculated into your GPA. For details, see [Withdrawal](#) and [Degree Requirements and Time Limit](#) in the current Undergraduate Catalog.
10. **Copyright.** The instructor owns the copyright of course materials including worksheets and exam questions. Students may not reproduce, distribute, or publicly post course materials without the instructor’s permission. Selling or distributing course materials may violate the [Ball State Code of Conduct](#) and/or the “Information Technology Users' Privileges and Responsibilities Policy”. Any violations will be referred to the Director of Student Rights and Community Standards.
11. **Syllabus interpretation.** If any part of this syllabus is unclear, students are encouraged to ask for clarification as early as possible, and no later than the first exam. This syllabus may be revised in the event of extenuating circumstances.

**Tentative Schedule and Important Dates**  
**Any changes will be announced during class and notified via BSU email.**

1 <sup>st</sup> week (01/05-01/09)	2 <sup>nd</sup> week (01/12 -01/16)	3 <sup>rd</sup> week (01/19-01/23)	4 <sup>th</sup> week (01/26-01/30)
Syllabus, 6.1, 6.2	6.2, 6.3, 6.4	7.1 Monday, MLK Day – No Classes	7.2, 7.3
5 <sup>th</sup> week (02/02-02/06)	6 <sup>th</sup> week (02/09-02/13)	7 <sup>th</sup> week (02/16-02/20)	8 <sup>th</sup> week (02/23-02/27)
7.4, 7.8, <b>Exam 1(Friday)</b>	7.8, 8.1	9.3, 10.1	10.2, 10.3
9 <sup>th</sup> week (03/02-03/06)	10 <sup>th</sup> week (03/09-03/13)	11 <sup>th</sup> week (03/16-03/20)	12 <sup>th</sup> week (03/23-03/27)
Monday – Friday, Spring Break – No Classes	10.4, 11.1	11.2, 11.3 <b>Course withdrawal period ends on Thursday, 03/19/2025</b>	11.4, 11.5, <b>Exam 2 (Friday)</b>
13 <sup>th</sup> week (03/30-04/03)	14 <sup>th</sup> week (04/06-04/10)	15 <sup>th</sup> week (04/13-04/17)	16 <sup>th</sup> week (04/20-04/24)
11.5, 11.6	11.7, 11.8	11.9, 11.10	11.11, <b>Take-home Exam</b>
Last meeting day:	Monday, 04/27/2025 (Final Exam Review)		
<b>Final Exam:</b>	<b>Tuesday, 04/28/2025, 9:45 – 11:45 AM</b>		