

1200 West Algonquin Road Palatine, Illinois 60067-7398

College Mission: Harper College enriches its diverse communities by providing quality, affordable, and accessible education. Harper College, in collaboration with its partners, inspires the transformation of individual lives, the workforce, and society.

MTH 201-002 91305 Calculus II Summer 2025 Course Syllabus

General Course Information

Credit Hours: 5 LECTURES

Class Dates: June 2, 2025 - July 24, 2025

Meeting Days and Times: MTWR 8:00 am - 10:15 am

Meeting Location: D Building Room 212

Modality: In-Person

Last Day to Drop for 100% Refund for early start classes: June 9

Last Day to Withdraw from early start classes with grade of W: July 14

Instructor Information

Name: Bijan Zandi

Prefer to be Addressed As: Mr. Zandi

Phone: N/A

Email: bzandi@harpercollege.edu

Office Location: D 211

Office Hours: TRF 2 pm – 5 pm by Appointment via Zoom

Preferred Method of Communication: Email Make sure to type in MTH201 on the subject line.

Course Description

Course Description: Continues MTH 200. Uses integrals to describe area and volume, studies techniques of integration, series, conics, polar coordinates, and parametric equations with applications to science and engineering. IAI M1 900-2, IAI MTH 902

Prerequisites: MTH 200 (Calculus I, IAI M1 900-1, IAI MTH 901) with a grade of C or better, or other placement options. https://www.harpercollege.edu/registration/testing/pdf/Math_Placement_Grid.pdf

Course Outcomes: Upon successful completion of the course, students should be able to:

- 1. differentiate and integrate common transcendental functions.
- 2. be able to use a variety of integration techniques, including substitution, integration by parts and reduction formulas.
- 3. apply tests for divergence and convergence to a variety of series and calculate the radius of convergence and the corresponding interval of convergence for a given series.
- 4. define the conics, write their equations, identify their properties and construct their graphs.
- 5. convert from rectangular to polar coordinates and vice-versa, write and graph polar equations and integrate polar functions.

Requirements:

- 1. Textbook: Calculus Early Transcendentals, 10th Edition by Anton, Bivens and Davis

 A pdf copy of the textbook will be available on Blackboard under Course Materials.
- 2. Texas Instrument Graphing Calculator TI84 or TI84 Plus-CE
- 3. Access to blackboard for taking quizzes and exams and accessing all the course material and your grades.

Expected Technical Skills: Familiar with blackboard.

COURSE OBJECTIVES (Learning Outcomes)

Upon successful completion of the course, students should be able to:

- 1. differentiate and integrate common transcendental functions.
- 2. be able to use a variety of integration techniques, including substitution, integration by parts and reduction formulas.
- 3. apply tests for divergence and convergence to a variety of series and calculate the radius of convergence and the corresponding interval of convergence for a given series.
- 4. define the conics, write their equations, identify their properties, and construct their graphs
- 5. convert from rectangular to polar coordinates and vice-versa, write and graph polar equations and integrate polar functions

Course Outline:

Chapter 6 Applications of the Definite Integral

Chapter 7 Principles of Integral Evaluation

Chapter 9 Infinite Series

Chapter 10 Parametric and Polar Curves; Conic Sections

Other Resources:

- 1. Free tutoring online and in person at Harper College Phone: (847) 925-6539
- 2. Variety of videos on YouTube
- 3. Variety of topics on Calculus on the internet
- 4. Additional textbooks and handbooks on Calculus

Course Assessments

Assessment Overview

Grading Criteria:

Grading Categories	Points/Percentage
1. Quiz 1	5%
2. Quiz 2	5%
3. Quiz 3	5%
4. Quiz 4	5%
5. Test 1	20%
6. Test 2	20%
7. Test 3	20%
8. Test 4	20%
9. FINAL EXAM	25%
Total Points	100%

Category Descriptions

- 1. 4 Tests 20% each
- 2. 4 Quizzes 5% each
- 3. Final Exam (comprehensive) 25%
- 4. If you miss a test or quiz, no make-up (extension) tests or quizzes will be given unless you provide me with an official documentation.
- 5. The lowest test score out of 4 tests and lowest quiz score out of 4 quizzes will be dropped.
- 6. The Final Exam score will not be dropped!
- 7. The Final Grade will be curved based on the average of the best 3 tests, best 3 quizzes and the Final Exam.
- 8. All quizzes and exams will be available on blackboard with a due date and availability date.

Course Schedule Math 201: Summer 2025

	Мо	nday	Tue	sday	Wedn	esday	Thu	ırsday
Week 1	6.1	(6/02)	6.2	(6/03)	6.3	(6/04)	6.4	(6/05)
							Quiz 1	(6.1-6.3)
Week 2	6.5	(6/09)	6.6	(6/10)	Test 1	(6/11)	7.1, 7.2	(6/12)
Week 3	7.3	(6/16)	7.4	(6/17)	7.5	(6/18)	NO Clas	ss (6/19)
					Quiz 2 (7.1-7.4)			
Week 4	7.6	(6/23)	7.7	(6/24)	7.8	(6/25)	Test 2	(6/26)
Week 5	9.1	(6/30)	9.2	(7/01)	9.3	(7/02)	9.4	(7/03)
							Quiz 3(9.1-9.3)
Week 6	9.5	(7/07)	9.6	(7/08)	9.7	(7/09)	9.8	(7/10)
							Quiz 4	(9.4-9.7)
Week 7	Test 3	(7/14)	10.1	(7/15)	10.2	(7/16)	10.3	(7/17)
Week 8	10.4	(7/21)	Test 4	(7/22)	Final Rev	iew (7/23)	Final Exa	m (7/24)

Course Surveys (Student Opinionnaires of Instruction): Near the end of this course, you will be invited to participate in a survey. The feedback you provide is valuable to me, as your instructor, as well as Harper College. The comments you share are completely anonymous and the compiled confidential results will not be released until after final grades have been posted for the entire semester. You may access the survey through a link you will receive in your Harper College Gmail account or directly via Blackboard. Surveys are *usually* available three weeks before the last day of class. To check a survey's availability in Blackboard, select the SOI- COURSE SURVEY link in the course menu. Surveys are only visible when they are available. *Note: Course surveys are administered in Fall and Spring semesters only*.

Course Culture

In Our Course

What to Expect from Your Instructor: I am here to help you with any questions that you might have.

Course Conduct: All participants in this course are expected to follow the <u>Student Code of Conduct</u> and other applicable College policies. All are expected to contribute to an environment that maximizes students' ability to learn and the instructor's ability to teach Using electronics in a way that minimizes distractions to others.

At Our College

If You are Sick with COVID-19: If you are experiencing COVID-19 symptoms or are awaiting COVID-19 test results, do NOT come to campus. If you have tested positive for COVID-19, or have been in close contact with someone who has tested positive, you are expected to notify the college. This will help the college protect and health and safety of our campus community.

• Fill out this form (bit.ly/studentcovidreport). The college will provide you with information on available resources and notify your current instructors/ faculty.

For more information on our COVID-19 campus procedures and answers to common questions, please <u>visit our</u> website (harpercollege.edu/advisory).

Academic Dishonesty [REQUIRED]: The College reserves the right to set and communicate reasonable standards of behavior. Students are expected to uphold college standards related to academic honesty. The following behaviors, as outlined in the <u>Student Code of Conduct</u>, are considered academic dishonesty and are prohibited. Examples are provided to illustrate the specific prohibition and are not intended to be all-inclusive.

- Cheating (accessing or using unauthorized materials or information)
- Plagiarism (reproducing someone else's words or ideas without accurate acknowledgment)
- Falsifying information (providing untrue information)
- Unauthorized collaboration (getting assistance or sharing work without permission)
- Facilitating academic dishonesty (participating in an act that creates an unearned advantage for someone)
- If you are caught cheating on any of the online unit tests, you will be required to complete the remaining unit tests in person, on campus in the Testing and Assessment Center at Harper College or another approved college testing center.
- Anyone I catch will be taking written tests in the testing center for me for the remainder of the semester.

Student Code of Conduct: Harper College encourages the intellectual and personal growth of its students as scholars and as citizens. The College has both the authority and responsibility to maintain a campus community where the educational programs can flourish for all students and where individual rights, personal and collective safety, and College operations are appropriately protected. It is a choice to attend Harper College and by doing so, students assume the obligations (including standards for behavior) imposed by the College.

Harper College students and student organizations are expected to act in accordance with the policies, rules, regulations, laws, and requirements of Harper College, municipalities and counties, the State of Illinois, and the United States. The <u>Student Code of Conduct</u> and related information at the <u>Harper Student Conduct resource page</u> outlines these expectations and provides resources and reporting options for students.

Equal Educational Opportunity Statement [REQUIRED]: In providing educational programs and opportunities, the College will not discriminate against any individual on the basis of race, color, religion, sex, national origin, ancestry, age, marital status, sexual orientation, gender-related identity, disability, unfavorable discharge from military service, or any other legally protected category. It is the intent of the Board of Trustees to comply with all applicable local, state, and federal statutes, regulations and ordinances prohibiting such discrimination.

If you believe you have experienced discrimination or harassment (whether on or off campus) that affects your ability to participate in class or any of Harper College's programs, please seek assistance from any of the following resources:

- For gender-based or sexual misconduct (including sexual assault and sexual harassment) by any person, visit the Harper College Title IX resource page to learn more about your support and reporting options.
- For any other harassment/discrimination by an employee, contact the College's Chief Human Resources Officer at 847-925-6216.

Please be advised that faculty members are required to report to the College if they learn that a crime, harassment, or discrimination may have occurred.

Student E-mail Notifications & Privacy: All notifications related to student registration or other business activities are sent to students via their Harper College email account (XXXX@mail.harpercollege.edu) that is assigned to students upon registration. Students access this account via an icon in the student portal (where you registered for

classes). Please check this e-mail frequently. To forward e-mails from this account to a personal email account please follow these instructions.

Please be advised that your education records are subject to a federal privacy law called the Family Education Rights and Privacy Act (FERPA). As a result, please be aware that you (not your parent(s), spouse, or other such person) will generally need to be the one to ask questions, file complaints, or otherwise interact with the College and faculty about your academic performance in this class.

Blackboard Privacy and Accessibility Statements: Blackboard is the learning management system used at Harper College. It provides a secure Web space for delivery of instructional course materials. Blackboard's <u>privacy</u> statement and accessibility statement are available for review.

Copyright Statement: The materials on this course website are only for the use of students enrolled in this course for purposes associated with this course and may not be retained or further disseminated. For more information, please visit the Harper College Copyright/Fair Use resource page.

Student Support Resources - Summer 2025

Please note: As on-campus activity changes in response to the COVID-19 pandemic, Student Support resources may adjust accordingly. Information about all student support resources can be found on the <u>Student Support Services page</u>.

Student Success

Academic Advising: Students are encouraged to meet regularly with their assigned academic advisor and can schedule through the MyHarper Student Portal or by calling 847.925.6220 to learn more about options for virtual and in-person appointments. Students who do not have an assigned academic advisor can contact Advising Services to schedule an appointment.

Phone: 847.925.6220

To learn more visit: Advising Services

Access and Disability Services [REQUIRED]: Harper College strives to make all learning experiences as accessible and inclusive as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let Access and Disability Services (ADS) know immediately at 847.925.6266. ADS will privately discuss the options you have, including possible accommodations. You are encouraged to register with ADS by filling out the online application that can be found on the ADS website. Once approved by ADS, please make arrangements with your instructor as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. In-person and virtual appointments are available.

Phone: 847.925.6266

Email: ads@harpercollege.edu

To learn more visit: <u>Access and Disability Services</u>

Military and Veteran Students: If you are a member of the military community, and are in need of accommodations for Drill schedules, calls to active duty, complications with GI Bill disbursement, and other unforeseen military and veteran related developments contact your **Academic Advisor**. For opportunities to connect, participate in activities and workshops with other Veteran and Military Connected Students (spouse, parent, sibling) contact us below.

Phone: 847.925.6555

Email: <u>imolina@harpercollege.edu</u>

Follow us on Instagram: <u>@Harpercollegesva</u>

OneStop: The OneStop is available by phone, email, or chat to help with registering for classes, updating records, financial aid and payment plans. They can help answer your questions or point you in the right direction.

Phone: 847.925.6710

• Email: onestop@harpercollege.edu

To learn more visit: One Stop

Library: The Library offers various services to support students including access to resources, study spaces, computers, course reserves, research help, and technology loans. Students can request library materials for pickup through their <u>Library account</u>. Research assistance is available through in-person, <u>live chat</u>, <u>email</u>, and <u>online research appointments</u>. Visit the Library website (see link below) to learn more and view our current hours.

• Phone: 847.925. 6584

Email: <u>library@harpercollege.edu</u>

To learn more visit: <u>Harper College Library</u>

Technology Loan Request: The Harper College Library has Chromebooks, wi-fi hotspots and graphing calculators available for semester-long loans. Equipment is available through the Library while supplies last. Students must be registered for the Summer 2023 semester to borrow equipment. Please submit a <u>Library Technology Loan Request</u> to begin this process or visit the Library during <u>open building hours</u>.

Students that request materials through the online form will be contacted by a Harper College Library representative as soon as possible. Students will receive an email to agree to the loan terms and will then receive an email when their items are ready for pick up. Thank you for your patience as we process your request.

Phone: 847.925.6584

• Email: semesterloantech@harpercollege.edu

Academic Support Center: The Academic Support Center offers Online and On Campus Tutoring (free for all Harper students), the Anatomy Room, the Developmental Math Center, Supplemental Instruction, Success Services, Tutoring Center, and Writing Center. For appointments: 1) Log in to your MyHarper Student Portal; 2) Click on Academic Success; 3) Click on Schedule an Appointment. For drop-in tutoring: 1) Visit https://harpercollege.edu/academicsupport; 2) Click on Live Chat; 3) Click on link to join tutoring session.

Phone: 847.925.6539

• Email: <u>academicsupportcenter@harpercollege.edu</u>

• Live Chat: harpercollege.edu/academicsupport

To learn more and view our current schedules visit: Academic Support Center

Student Service Desk (Computer Help): The Student Service Desk assists all students by providing information and support for Harper Student E-mail Accounts, MyHarper Student Portal, and Blackboard.

Phone: 847.925.6866

• Email: studentsd@harpercollege.edu

Computer Labs: Campus labs are staffed to assist students with logging on and off, accessing specific applications and printing their work. Labs are open to all currently enrolled Harper students.

To learn more visit: Harper College Computer Labs

Job Placement Resource Center (JPRC): Assists students to become successful in their search for employment opportunities. Help is available with resumes, interviewing, job search, co-ops and internships, and on-campus employment as Student Aides. Students can take advantage of JPRC services by scheduling an appointment.

• Phone: 847.925.6400

• To learn more visit: Harper College JPRC

Student Safety and Wellness

Students may experience stressors that can impact both their academic experience and their personal well-being. These may include academic pressure and challenges associated with relationships, mental health, alcohol or other drugs, identities, finances, etc.

If you are experiencing concerns, seeking help is a courageous thing to do for yourself and those who care about you. Please reach out for support. We offer the following resources:

Hawks Care: It can be hard to focus on school when you are worried about everyday life. Maybe you are not sure how you can pay for school, while also paying for everyday expenses or your monthly bills. Maybe you are worried about the cost of food, or if your car can reliably make it to and from campus. Maybe you don't have the supplies you need for school, like a laptop or Wi-Fi internet connection, etc. Hawks Care at Harper is here to help! A private conversation with someone who cares can connect you to community and campus resources. Hawks Care also has limited financial support for unexpected needs.

To learn more visit: <u>Hawks Care</u>

Phone: 847-925-6393

Counseling Services: Counseling Services promotes the academic success and personal well-being of students by providing short term personal counseling and wellness support along with career and educational counseling. Services are available to currently enrolled students and are free of charge. Harper students also have free access to WellTrack, a mobile app with self-help tools and resources anytime, anywhere.

Additional information about WellTrack

• To learn more visit: Counseling Services

Phone: 847.925.6393

Harper Wellness: Harper College is committed to providing a campus culture and environment that strives to promote and enhance the overall wellness of its students, staff, faculty and surrounding community. Harper Wellness provides various programs, events and resources so everyone is supported and best prepared to LEARN WELL. WORK WELL. and LIVE WELL. (Please note that individual services are provided through Counseling Services)

Phone: 847.925.6963

• To learn more visit: Harper Wellness

Community Resources: A variety of community-based resources are available to help students in need: <u>Community Resources for Students</u>

Harper Early Alert Team (HEAT): HEAT is a multidisciplinary campus threat assessment and behavioral intervention team that guides the campus community in effectively assessing and addressing threatening and/or concerning behaviors. HEAT strives to assist the campus in intervening with someone before their behaviors reach a critical level.

To learn more or to report a threat: Harper College HEAT

Phone: 847.925.6330

My Expectations

- 1. I expect you to check the syllabus and blackboard daily for announcements and due dates for your quizzes and
- 2. I expect you to work on your homework assignments regularly and seek help as soon as you need it. Please use the class times and my office hours when you encounter any questions on your homework assignments.

You will be successful in this course if you study your notes carefully, do your homework daily, review regularly. Completion of your homework assignments will lead you to succeed in your quizzes and tests.

Good luck in your studies and have a great semester!

MTH 201 Calculus II

Suggested Homework Assignments

Chapter 6 Applications of the Definite Integral

Sec 6.1	Page 419	#1, 3, 5, 9, 15, 35, 37
Sec 6.2	Page 428	#1, 3, 15, 19, 41, 49
Sec 6.3	Page 436	#1, 3, 9, 15, 25a,
Sec 6.4	Page 441	#1, 3, 7, 15, 29
Sec 6.5	Page 447	#1, 3, 5, 7, 35
Sec 6.6	Page 456	#1, 5, 7, 9

Chapter 7 Principles of Integral Evaluation

Sec 7.1	Page 490	#1, 3, 5, 9, 11, 13, 15, 19, 23, 25, 27, 29
Sec 7.2	Page 498	#1, 11, 13, 17, 19, 65c
Sec 7.3	Page 506	#1, 10, 17, 21, 27, 30, 33, 35, 39, 47
Sec 7.4	Page 513	#1, 5, 7, 15, 21, 31, 37, 41, 45
Sec 7.5	Page 521	#2, 3, 4, 9, 15, 23, 27, 30, 39
Sec 7.6	Page 531	#3, 9, 11, 17, 25, 27, 41, 47, 51
Sec 7.7	Page 544	#1, 3, 27, 29
Sec 7.8 Version: Summer 2023	Page 554	#1, 3, 5, 9, 15, 17, 21, 23, 25

Chapter 9 Infinite Series

Sec 9.1	Page 605	#1, 7, 9, 11, 15, 21, 23, 25, 27, 29
Sec 9.2	Page 613	#1, 7, 18, 21, 23
Sec 9.3	Page 621	#1, 3, 5, 7, 9, 11, 13, 22, 23, 29a, 31, 35, 37
Sec 9.4	Page 629	#1, 3, 5a, 7, 9, 11, 15, 25
Sec 9.5	Page 636	#1-19 odd, 25-33 odd, 51
Sec 9.6	Page 646	#1, 3, 9, 13, 19, 21, 27
Sec 9.7	Page 657	#9, 11, 15, 19
Sec 9.8	Page 667	#3, 5, 11, 13, 19, 21, 23, 29, 31, 33, 41, 51

Chapter 10 Parametric and Polar Curves; Conic Sections

Sec 10.1	Page 700	#3, 5, 41, 45, 47, 49, 514, 53, 57
Sec 10.2	Page 716	#1, 3, 5, 9, 11, 13, 17, 19, 21, 27, 30, 34, 38
Sec 10.3	Page 726	#1, 5, 7, 9, 19, 21, 25-41 odd
Sec 10.4	Page 744	#1, 2, 5, 6, 13, 15, 16, 19, 20, 23, 24

MTH 201-002 91305 Calculus II Summer 2025 Statement of Understanding

Documentation of Understanding

Syllabus Receipt				
I acknowledge that I have received and rev (course ID and name), (sem		syllabus for		
☐ My course meets on (da	ys) at	(time) in room		
☐ My course is online, and can be accessed at <u>Harper's Blackboard site</u>				
Syllabus Acknowledgement				
I have read the syllabus (either in paper or online), and I understand the classroom policies, instructor's expectations, and rules as stated in the syllabus for this course.				
I understand that I am responsible to complete all homework assignments, in-class activities, and class assessments by the due dates as outlined in the syllabus.				
I understand that attendance and participation in all course activities is essential for my success in this course.				
If I have any questions or concerns, I will contact the instructor for further explanation.				
Student Signature				
Print/Type Name:				
Signed:	r	Date:		
(If submitted electronically, the typed name plus s	ubmission of this st	tatement in Blackboard or to the instructor via		

(If submitted electronically, the typed name plus submission of this statement in Blackboard or to the instructor via email constitutes student signature).