

Course Syllabus for MA 26100, Spring 2025

4 credit hours

West Lafayette (WL) and Indianapolis (INDY) locations

*As a Boilermaker pursuing academic excellence, I pledge to be honest and true in all that I do.
Accountable together - we are Purdue.*

Catalog Course Objectives: 1. Know the equations for lines, planes and quadric surfaces in three dimensional space, and understand how these equations relate to the geometry. 2. Understand the relationship between vector functions and parametrized motion; know how to calculate velocity, acceleration, arc length and curvature. 3. Know the meaning of partial derivatives and how to calculate them. Know the multivariable chain rule. 4. Know the meaning of the gradient, how to calculate it, and how to apply it to directional derivatives and maximum and minimum values. 5. Understand the meaning of double and triple integrals; know how to compute them and how to apply them. 6. Understand the meaning of vector fields and line integrals. Know Green's theorem and be able to apply it. 7. Understand the meaning of surface integrals and know how to calculate them. Know Stokes' theorem and be able to apply it.

Lecturers: WL MWF 2:30 - Dr. Andrew Toms, MATH 720, atoms@purdue.edu
WL MWF 3:30, INDY MWF 10:30 - Dr. Jon Peterson, MATH 430, peterson@purdue.edu
WL MWF 8:30, INDY MWF 12:30 - Dr. Philip Mummert, MATH 846, pmummert@purdue.edu
Due to the large number of students in this class, for most questions (in particular for questions about deadlines, grading disputes, or technical issues) it is recommended that you contact your TA first. If the TA cannot answer your question, he or she will forward it to the lecturer.

Attendance: Lecture and recitations will meet in-person at the assigned time and location indicated on your class schedule. Quizzes and exams must be completed in-person as scheduled, and you must attend recitation to complete your quizzes.

Required Materials: Students are required to have an access code for the *Pearson MyLab Math* platform. A physical textbook is NOT required. A digital version of the textbook is included in *MyLabMath*. For reference, the textbook is *Calculus, Early Transcendentals*, (Third Edition) by Briggs, Cochran, Gillett, Schulz. There is a two week grace period before you must purchase an access code. If you have taken more than one semester of calculus, the full access code (multi-semester) is good for all the Calculus courses (MA 16100, MA 16200, MA 16500, MA 16600, and MA 26100) since they use the same textbook.

Brightspace: Course information and resources, lecture Boilercast recordings, announcements, important links, and *MyLabMath* should be accessed through your recitation course page in *Brightspace*. <http://purdue.brightspace.com>

Homework: There are 37 lessons associated with online *MyLab Math* assignments. Due dates and times are listed in the *MyLab Math* system, and on the course calendar webpage. Assignments and due dates will **not** appear in the *Brightspace* calendar. Generally, homework is due Tuesday at 11:59^{pm} and Thursday at 11:59^{pm}. Contact your TA if you have unresolved concerns over how a homework problem was scored. There are many questionable resources (excessive calculator use, online solvers, AI, answer-sharing websites, etc.) that you may be tempted to

utilize when completing the homework; availing yourself of these shortcuts means you are not only missing the opportunity to internalize the problem-solving concepts, but also disregarding chances to self-assess your understanding and computational fluency. Poor homework habits will show up in poor quiz and exam results.

Quizzes: There will be a timed quiz in every recitation class with a few exceptions. Quizzes typically cover content related to the homework that was due the previous week.

Policy on Late Homework and Missed Quizzes: Late homework will not be accepted. No make-up quizzes will be given. At the end of the semester, the 3 lowest homework scores and the 2 lowest quiz scores will be dropped to account for the fact that in a course this size, we cannot adjudicate every circumstance. (The assumption is that every student occasionally has an appointment, oversight, accident, illness, or emergency that causes him or her to miss class or a homework deadline, and these situations are covered by the universal “drop” policy.) Students who are forced to miss class for an extended period of time should contact the Office of the Dean of Students and the lecturer. Quizzes that are missed due to absences approved by the Office of the Dean of Students (grief, military, jury duty, university athletics, or medical) may be exempted by your TA from the overall total.

Midterm Examinations:

	West Lafayette	Indianapolis
EXAM 1	Wednesday Feb 26 6:30 ^{pm} in ELLT	Friday Feb 28 in lecture
EXAM 2	Tuesday Apr 8 6:30 ^{pm} in ELLT	Wednesday Apr 9 in lecture

Final Examination: There will be a two-hour final during final exam week. The time and place will be announced by the university registrar at a future date.

Department Course Web Page: <http://www.math.purdue.edu/MA261>

Registration Dates: According to the registrar’s calendar -
 Last day to drop the course without it being recorded: Monday, **January 27**
 Last day to drop the course and receive a grade of W: Friday, **April 18**

Transfers: If you transfer sections of MA 26100, it is your responsibility to notify the TA of the new section so that he or she can ensure that your *MyLab Math* scores are transferred. You should also access *MyLab Math* through your new *Brightspace* page, so scores synchronize properly.

Calculators: Calculators are not allowed on exams or quizzes. It is important that you learn to do simple manipulations by hand.

Grades: Individual homework scores will appear in *MyLab Math*. Scores for quizzes, exams, overall homework, and the course total will be displayed in *Brightspace*. Course grades will be determined from your overall score computed as follows:

Quizzes	10 %
Homework	20 %
First Midterm Exam	20 %
Second Midterm Exam	20 %
Comprehensive Final Exam	<u>30 %</u>
	100 %

Course letter grade cutoffs will certainly be *at least* as generous as the following:

A+(97), A(93), A-(90), B+(87), B(83), B-(80), C+(77), C(73), C-(70), D+(67), D(60)

Cutoffs may be adjusted after each midterm exam to give students an idea of their standing in the course. Since TAs write and grade quizzes independently, students may be allocated some “extra credit” on the quiz category to make its median value similar for different TAs.

Lecturer Office Hours: “Office Hours” are the weekly times set aside by the lecturer to be available for students in this course to drop by and get help or just talk one-on-one. Your lecturer will announce his office hour schedule.

WL TA Office Hours: <http://www.math.purdue.edu/academic/officeworkhours> You may attend any of the scheduled hours in the Math Resource Room (WL). The purpose of the MRR is to foster student learning. The MRR is a space for students to work collaboratively and for instructors to answer questions over course material and go through problems similar to student homework problems. The instructors will not do your exact homework problems. Instead, they will go through a similar problem with you to give you another example to work through. This is more beneficial for you, since it better prepares you for quizzes and exams.

WL Supplemental Instruction: There are Supplemental Instruction (SI) study sessions available for WL students. Attendance at these sessions is voluntary, but extremely beneficial for those who attend weekly. Times and locations for the study session can be found here: www.purdue.edu/si Students who attend these interactive sessions will find themselves working with peers as they compare notes, demonstrate and discuss pertinent problems and concepts, and share study and test-taking strategies. Students are asked to arrive with their student ID card, lecture notes and questions to these informal, peer-led study sessions.

WL Tutoring: “Women in Science and Engineering Tutoring Program” offers free evening tutoring: www.purdue.edu/science/wisp/tutoring

“COSINE” offers free evening tutoring for Math, Biology, and Chemistry in Shreve Hall’s University Residences Support Center. www.purdue.edu/science/Current_Students/cosine
Here is a list of math tutors for hire: www.math.purdue.edu/academic/tutor/

INDY Math Assistance Center: Purdue students in Indianapolis can utilize the IUI Math Assistance Center (MAC). The MAC check in desk has 2 terminals. One for IUI students into their system and one for Purdue students into Boiler Connect. <https://science.indianapolis.iu.edu/math/academics/academic-support/mac.html>

INDY Tutoring: Peer-Led tutoring is a free service available to Purdue students in Indianapolis. Tutoring sessions are 60 minutes long and take place in the ET Building. You can schedule a tutoring session through BoilerConnect. <https://www.purdue.edu/asc/indianapolis/tutoring.html>

Academic Adjustments for Students with Disabilities: Purdue University strives to make learning experiences accessible to all participants. If you anticipate or experience physical or academic barriers based on disability, you are encouraged to contact the Disability Resource Center at: drc@purdue.edu or by phone: 765-494-1247, as soon as possible.

If the Disability Resource Center (DRC) has determined reasonable accommodations that you would like to utilize in this class, you must send your Course Accommodation Letter to both your TA and the professor. Instructions on sharing your Course Accommodation Letter can be

found by visiting: <https://www.purdue.edu/drc/students/course-accommodation-letter.php>. Additionally, you are strongly encouraged to contact your TA as soon as possible to discuss implementation of your accommodations.

Commercial Note Taking in Classes: Notes taken in class are generally considered to be “derivative works” of the instructor’s presentations and materials, and they are thus subject to the instructor’s copyright in such presentations and materials. No individual is permitted to sell or otherwise barter notes, either to other students or to any commercial concern, for a course without the express written permission of the course instructor. See University Senate Document 03-9, April 19, 2004.

Common University Policies and Resources: Information about common policies and listings of university resources are all available in the Brightspace homepage.

Academic Dishonesty: Academic integrity is one of the highest values that Purdue University holds. Individuals are encouraged to alert university officials to potential breaches of this value by either emailing integrity@purdue.edu or by calling 765-494-8778. While information may be submitted anonymously, the more information that is submitted provides the greatest opportunity for the university to investigate the concern.

Purdue prohibits “dishonesty in connection with any University activity. Cheating, plagiarism, or knowingly furnishing false information to the University are examples of dishonesty.” [Part 5, Section III-B-2-a, University Regulations] Furthermore, the University Senate has stipulated that “the commitment of acts of cheating, lying, and deceit in any of their diverse forms (such as the use of substitutes for taking examinations, the use of illegal cribs, plagiarism, and copying during examinations) is dishonest and must not be tolerated. Moreover, knowingly to aid and abet, directly or indirectly, other parties in committing dishonest acts is in itself dishonest.” [University Senate Document 72-18, December 15, 1972]. For more details about the Purdue Policy on academic dishonesty see

<http://www.purdue.edu/odos/academic-integrity/>

The following Exam Rules will be printed on each midterm and the final exam:

1. Students may not open the exam until instructed to do so.
2. Students must obey the orders and requests by all proctors, TAs, and lecturers.
3. No student may leave in the first 20 min or in the last 10 min of the exam.
4. Books, notes, calculators, or any electronic devices are not allowed on the exam, and they should not even be in sight in the exam room. Students may not look at anybody else’s test, and may not communicate with anybody else except, if they have a question, with their TA or lecturer.
5. After time is called, the students have to put down all writing instruments and remain in their seats, while the TAs will collect the scantrons and the exams.
6. Any violation of these rules and any act of academic dishonesty may result in severe penalties. Additionally, all violators will be reported to the Office of the Dean of Students.

Students more than 20 minutes late will not be allowed to take the exam. They will have to contact their lecturer immediately for permission to take a make-up exam. Grade penalties are possible.

Course and Instructor Evaluations: During the last two weeks of the semester, you will be provided an opportunity to evaluate this course and your instructor(s) through online course evaluations. On Monday of the 14th week of classes, you will receive an official email from evaluation administrators with a link to the online site. You will have two weeks to complete this evaluation. Your participation in this evaluation is an integral part of this course. Your feedback is vital to improving education at Purdue University. We strongly urge you to participate in the evaluation system.

Other Issues: In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor's control. To get information about changes in this course please check Brightspace regularly.