

Course Syllabus for MA 26100, Spring 2022

4 credit hours

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

Lecturers: MWF 3:30 - Dr. Shawn Cui, MATH 646, cui177@purdue.edu

MWF 8:30, MWF 9:30 - Dr. Philip Mummert, MATH 846, 494-1914, pmummert@purdue.edu

Email is preferred method of contact, but don't count on a response on evenings or weekends.

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 email your TA first. If the TA cannot answer your question, he or she will forward it to the lecturer.

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.

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. There is no fully-online option this semester. If you are quarantined, you are expected to keep up with online homework deadlines and viewing lectures online if your health will allow it.

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*. (The lecture component will not have its own separate *Brightspace* page). <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. Assignments and due dates will **not** appear in *Brightspace*. 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, 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 quarantine) may be exempted by your TA from the overall total.

Midterm Examinations: Two one-hour, multiple choice, midterm exams:

EXAM 1 – Tuesday, February 22	8:00 ^{pm} in ELLT
EXAM 2 – Tuesday, April 5	8:00 ^{pm} in ELLT

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>

Important Dates:

Last day to drop the course without it being recorded: Monday, **January 24**

Last day to drop the course and receive a W: Friday, **March 11**

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 across sections.

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.

TA Office Hours: <http://www.math.purdue.edu/academic/officehours>

You may attend any of the scheduled hours in the Math Resource Room (MATH 205/211). The Math Resource Room will NOT be in HAAS this semester. 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 students 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.

Supplemental Instruction: There are Supplemental Instruction (SI) study sessions available for this course. These study groups are open to anyone enrolled in this course who would like to stay current with the course material and understand the material better. 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.

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/

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 welcome to let your instructors know so that we can discuss options. You are also encouraged to contact the Disability Resource Center at: drc@purdue.edu or by phone: 765-494-1247.

If you have been certified by the Disability Resource Center (DRC) as eligible for accommodations, you should contact your recitation TA to discuss your accommodations as soon as possible. You should send your Course Accessibility Letter to your recitation TA and also to your lecturer: here are instructions for how to do this <https://www.purdue.edu/drc/students/course-accessibility-letter.php>

CAPS Information: Purdue University is committed to advancing the mental health and well-being of its students. If you or someone you know is feeling overwhelmed, depressed, and/or in need of support, services are available. For help, such individuals should contact Counseling and Psychological Services (CAPS) at (765)494-6995 and www.purdue.edu/caps during and after hours, on weekends and holidays, or by going to the CAPS office, room 224 of the Purdue University Student Health Center (PUSH) during business hours.

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.

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.