

Course Syllabus for MA 16200 IMPACT, Spring 2020

Course Objectives: 1. Apply techniques of integration (integration by parts, trigonometric substitution and partial fractions) to compute areas of planar regions, volumes of solids of revolution and areas of surfaces of revolution, work, moments and centers of mass of homogeneous laminas. 2. Apply tests of absolute convergence of series to find the interval of convergence of some power series. 3. Find the Taylor and Maclaurin series of some exponential, rational and trigonometric functions. 4. Use polar coordinates to make it possible to sketch the graphs of some curves. 5. Understand the definition of a Riemann sum, and should be able to apply elementary approximation methods of integration.

Description: Many students find that large lectures are not the best way for them to learn. IMPACT is a university-wide program at Purdue whose goal is to give an alternative to large lectures. MA 16200 IMPACT is a version of Calculus II which emphasizes

- active learning, and
- extra time devoted to topics that many students have trouble with, such as word problems.

The class will meet on Tuesdays for a 75 minute large session mainly devoted to group work, with some mini-lectures on useful topics. There will also be recitation sections twice a week. An important difference from traditional calculus is that the 75-minute IMPACT sessions will not “cover” the material; instead, you will watch lectures which are included in the MyLab Math assignments. The purpose of the IMPACT sessions is to give you an opportunity to spend extra time on the more difficult aspects of the course and to discuss your thinking with each other, and also with your TA and Professor Harris.

Attendance Policy: Students will receive the grade of F for MA 16200 IMPACT for the following violations of the attendance policy (but they may transfer to the traditional MA 16200 without penalty until March 13):

- Missing more than one Tuesday meeting after the first week without an approved documented excuse
- Being more than 5 minutes late for a fourth time to the Tuesday meeting after the first week without an approved documented excuse
- Missing 1 Tuesday meeting after the first week and being more than 5 minutes late to three others without an approved documented excuse.

Excuses must be approved by Professor Harris.

You may not leave the IMPACT sessions before the end: Students who leave an IMPACT session before the end will lose all IMPACT points for that week. If there is a special situation such as a doctors appointment, you can request permission from Professor Harris to leave early. If possible, you should ask about this before the day of the session.

IMPACT Points: Each Tuesday, an IMPACT problem set will be distributed to all students. This will be due three days later, at the beginning of recitation on Friday. Each student should turn in a solution set. The solutions will be graded for completion (2 points), and two problems will be graded for correctness (2 points each). There will also be participation grades which count a total of 60 points for the semester; your teaching assistant will explain how this works. The total number of possible IMPACT points for the semester is 150 (15 problem sets worth 6 points each, and 60 points for participation). IMPACT points count the same as exam points in your final grade: the total IMPACT points count 1.5 times as much as a midterm.

Homework: There are 35 online assignments using MyLab Math (accessed through your MA 16200 Blackboard page). Due dates and times are listed on the MyLab Math, under “MyLab Math All Assignments.” Generally, homework from the Friday and Monday lectures are due Tuesday at 11:59 pm and homework from the Wednesday lecture is due Thursday at 11:59 pm. During the first two weeks of the semester you can use MyLab for free. After that you will have to pay the (nonrefundable) access fee.

Transfers: If you transfer sections, it is your responsibility to notify the TA of the new section so that he/she can ensure that your past scores are transferred correctly.

Quizzes: There will be a quiz in every recitation class with a few exceptions. The quizzes will be on the material from lessons whose homework is due the previous recitation.

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. Students who are forced to miss class for an extended period of time should see the lecturer.

Midterm Examinations: Three one-hour, multiple choice, evening midterm exams:

EXAM 1 – Thursday, February 6	(8:00 pm)
EXAM 2 – Thursday, March 12	(8:00 pm)
EXAM 3 – Tuesday, April 14	(6:30 pm)

Final Examination: There will be a two-hour, multiple-choice final during final exam week. The time and place will be announced later.

Course Web Page: <http://www.math.purdue.edu/MA162I>

NOTE: make sure you include the I at the end of the URL, otherwise you’ll get the web page for the traditional MA 16200 sections.

Check this web page (not Blackboard) often for important information and announcements. There is also a detailed *Course Calendar* for the entire semester posted.

Important Dates:

Last day to drop a course without it being recorded: Monday, **January 27** (5:00 pm).

Last day to drop a course: Friday, **March 13** (5:00 pm).

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

Grades: Course grades will be determined from your overall score which will be computed as follows:

IMPACT points	17 %
Homework	12 %
Quizzes	12 %
*Three midterms @ 12 % each	36 %
*Comprehensive Final Exam	<u>23 %</u>
	100 %

There are no preset cutoffs for student grades. Instead, we will use the following system: Each TA will be allocated a certain quantity of letter grades to award that is equal to the number of those grades earned on the *common exam totals*. Each TA will then award his/her allocated letter grades to individual students within his/her sections by ranking according to overall course total. Advisory letter grades will be published after each exam to give students an idea of their standing in the course.

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

You may attend any of these hours in the Math Resource Room (MATH 211). The purpose of the Math Resource Room 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 Instructions: 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 or the free app: www.purdue.edu/boilerguide 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.

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.

If you have been certified by the Disability Resource Center (DRC) as eligible for academic adjustments on exams or quizzes see www.math.purdue.edu/ada for exam and quiz procedures for your mathematics course or go to MATH 202 for paper copies.

In the event that you are waiting to be certified by the Disability Resource Center we encourage you to review our procedures prior to being certified.

For all in-class accommodations please see your instructor outside class hours before or after class or during office hours to share your Accommodation Memorandum for the current semester and discuss your accommodations as soon as possible.

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 frequently the course web page: www.math.purdue.edu/MA162