

## Course Syllabus for MA 16100 (IMPACT), Fall 2018

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

**Course Objectives:** 1. To compute limits and to apply limit laws. 2. To apply rules of differentiation to compute derivatives of elementary functions. 3. To sketch graphs of functions with the aid of differentiation techniques. 4. To find maxima and minima of functions; optimization problems 5. To compute integrals of some elementary functions and to apply the Fundamental Theorem of Calculus to compute areas of certain planar regions.

**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 replace large lectures with something that works better. MA 16100 IMPACT is a version of Calculus I 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 these 75-minute IMPACT sessions will not cover the material; instead, you will watch lectures which are included in the WebAssign 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 Kaufmann.

**Attendance Policy:** Students will receive the grade of F for MA 16100 IMPACT for the following violations of the attendance policy (but they may transfer to the traditional MA 16100 without penalty until October 23):

- 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 Kaufmann.

**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 the instructor to leave early. If possible, you should ask about this before the day of the session.

**IMPACT Activities:** Each Tuesday, an IMPACT problem set will be distributed to all students. This will be due at the beginning of the next Tuesday session. Each student should turn in a solution set. The solutions will be graded for completion (2 points), one problem will be graded for correctness (2 points) and each group will present a solution to the TA during certain weeks (there will be 5 of these, worth 6 points each).

**Homework:** There are 37 online assignments using *WebAssign*

<https://www.webassign.net/purdue/login.html>

Due dates and times are listed on the *WebAssign* "Course View." Generally, homework from the Friday and Monday lectures are due Tuesday at 11:00<sup>pm</sup> and homework from the Wednesday lecture is due Thursday at 11:00<sup>pm</sup>.

**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, midterm exams:

|                                  |                       |
|----------------------------------|-----------------------|
| EXAM 1 – Wednesday, September 19 | (6:30 <sup>pm</sup> ) |
| EXAM 2 – Thursday, October 18    | (6:30 <sup>pm</sup> ) |
| EXAM 3 – Thursday, November 15   | (6:30 <sup>pm</sup> ) |

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

**Course Web Page:** <http://www.math.purdue.edu/MA161i>

Check this web page (not Blackboard) often for important information and announcements. There is a calendar for the entire semester which is *different* from the calendar for the regular 16100 course (but the homework due dates and exam dates are the same).

**Important Dates:**

Last day to drop the course without it being recorded: Monday, **September 3**

Last day to drop the course and receive a W: Tuesday, **October 23** (5:00<sup>pm</sup>)

**Transfers:** If you transfer sections, it is your responsibility to notify the TA of the new section so that he/she can request to have your past *WebAssign* scores moved over.

**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              | 90 pts         |
| Homework                   | 100 pts        |
| Quizzes                    | 100 pts        |
| *Three midterms @ 100 each | 300 pts        |
| *Comprehensive Final Exam  | <u>200 pts</u> |
| <b>Overall Score</b>       | 790 pts        |

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\* out of 500 points. This allocation will be at least as generous (may be adjusted favorably based on course-wide performance) as the following cutoffs (again, out of 500 points): 450 A+/A/A-, 400 B+/B/B-, 325 C+/C/C-, 250 D+/D. Each TA will then award his/her allocated letter grades to individual students within his/her sections by ranking according to each individual students overall course total out of 790 points.

**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](http://www.purdue.edu/si) or the free app: [www.purdue.edu/boilerguide](http://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 as accessible as possible. 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](mailto: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 <http://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 DRC 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](http://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](mailto: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.

**An Education Study:** The university is conducting an education study to measure the effectiveness of MA 16100. There are four course activities connected with this study. The Calculus Concept Inventory quiz will be administered in the second recitation of the semester. It will be given again in the second recitation of the penultimate week of classes. The quiz will not be graded for accuracy; instead you will receive 2 extra credit points in your final grade for participating. You will also be sent two surveys by email, one at the beginning of the semester and one at the end, and you will get 2 extra credit points for each of them. If you decide not to participate in an extra credit activity you can still get the points for that activity by writing a one-page essay that your TA will assign.

**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 14<sup>th</sup> 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 instructors control. To get information about changes in this course please check frequently the course web page: [www.math.purdue.edu/MA161i](http://www.math.purdue.edu/MA161i)