# COURSE SYLLABUS $\cdot$ MA 166 $\cdot$ SPRING 2022

**4 CREDIT HOURS** 

## CLASS WEBSITE

#### https://www.math.purdue.edu/~kthood/MA166 Spring2022.html

## INSTRUCTOR INFORMATION

Prof. Kaitlyn Hood

#### **Office Hours:**

"Office Hours" are the weekly times set aside by the lecturer to be available for students in this course to get help or talk one-on-one. The schedule for office hours is posted below.

Day	Time	Location
Monday	11am-12pm	zoom
Tuesday	1-2pm	zoom
Friday	11am-12pm	zoom

On days that class is cancelled, then office hours will also be cancelled.

The zoom link will be posted in Brightspace under Content -> zoom

#### Email: <u>kthood@purdue.edu</u>

Email is the 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 (particularly questions about deadlines, absences, grading disputes, or technical issues) it is recommended that you email your TA first. If the TA cannot answer your question, they will forward it to Dr. Hood. Dr. Hood will respond to emails once a day and emails forwarded from the TAs will receive priority.

## PURPOSE OF THE COURSE

#### WHY SHOULD YOU WANT TO STUDY CALCULUS 2?

In calculus 2 we study different techniques of integration. Many of these techniques involve transforming a difficult problem into something more manageable – a concept that is useful in many science and engineering applications. Integrals themselves have many applications for understanding the physical world. The integral allows us to calculate the area under a curve, the flux across a surface, the probability distribution of a continuous random variable, and the Laplace transform of a function (among numerous other applications). Additionally, in calculus 2 we study a new concept called a series – an infinite sum of functions. Specifically, the Taylor series is a powerful tool that allows us to approximate almost any function.

## COURSE GOALS

- Vectors in two and three dimensions
- Techniques of integration
- Infinite series and convergence tests
- Taylor series
- Polar coordinates and surfaces in 3 dimensions

## THE LEARNING ENVIRONMENT

## FACILITIES AND TEACHING METHODS

Class will meet 3 times a week (Monday, Wednesday, and Friday) for lectures and once a week (Thursday) for recitation.

LECTURES: During lectures, new material will be introduced, previous material will be reviewed, and HotSeat Questions will be administered. The purpose of the HotSeat questions is twofold:

- (1) to encourage students to actively engage with the material, and
- (2) to allow the instructor to assess student understanding in real time and (if needed) make adjustments.

Lectures will be recorded via BoilerCast and uploaded to the corresponding Brightspace page (under Kaltura media). Lecture notes will be posted on the class website under Lecture Archive.

#### NOTE: LECTURE ATTENDANCE POLICY

Lecture attendance is optional (but highly encouraged for optimal learning).

However, this class is currently over-enrolled, **so not every student can attend class in-person.** There are more students than seats in the lecture room. To accommodate everyone fairly, we ask the following:

- View the attendance schedule here: https://www.math.purdue.edu/~kthood/attendance\_sched\_ma166\_sp22.html
- When your section is chosen on a given lecture date, please do not come to class in-person. You can either:
  - Watch the Live Stream BoilerCast lecture in real-time
    - LEC -> Course Tools -> Kaltura Media Gallery
  - $\circ$   $\quad$  Watch the recorded BoilerCast lecture later in the day
    - Link to lecture archive:

https://www.math.purdue.edu/~kthood/lecture archive ma166 sp22.html

- Otherwise, students may attend lecture in-person.
- Students may attend all recitation sections on Thursdays.

This way, students only need to sit out the in-person lecture once every 4 weeks.

(We hope that after a few weeks, the enrollment numbers will decrease and everyone will be able to attend the lecture in person. If that becomes the case, Dr. Hood will contact everyone to let them know.)

RECITATIONS: Recitations will be led by the TAs. During the recitation, students will work together in groups and with the TA on the weekly quizzes. The purpose of recitation activities is to reinforce the material practiced on the homework and to allow students the opportunity to ask questions about the material. In general, recitations will not be recorded.

**Recitation attendance policy:** Recitation attendance is highly encouraged. The quiz material will be covered in recitation, so it will help students on the quizzes. However, attendance will not be taken into account of the grading.

## REQUIRED TEXTS

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 Pearson MyLab Math. For reference, the textbook is Calculus, Early Transcendentals, (Third Edition) by Briggs, Cochran, Gillett, Schulz.

Pearson MyLab Math should be accessed through the course page in Brightspace <u>http://purdue.brightspace.com</u>. There is a two week grace period before you must purchase an access code. If you are taking 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.

### REQUIRED MATERIALS

Students will need to bring an electronic device to class that is compatible with HotSeat.

- Laptop computer using the website at <a href="https://www.openhotseat.org/Login">https://www.openhotseat.org/Login</a>
- Mobile device with iOS
  - o download the iOS app here: <u>https://apps.apple.com/us/app/hotseat-at-purdue/id456318091</u>
- Mobile device with SMS texting

Abiding by the "run what you brung" model, HotSeat allows learners to answer questions using whatever technology they have available – SMS texting, iOS mobile app, and desktop and mobile websites. This gives everyone a chance to actively engage in classroom activities.

Note: During the first week, time in lecture will be dedicated to allow students to login and practice using HotSeat.

## COURSE CALENDAR

The course calendar can be accessed online at:

https://www.math.purdue.edu/~kthood/calendar\_ma166\_sp22.html.

This website will be updated throughout the semester.

HOW LEARNING WILL BE ASSESSED

#### GRADING PROCEDURE

Below is a complete list of assessments in this course. There will be no extra credit assignments.

**HOTSEAT QUESTIONS**: There will be 2-3 questions per lecture. Because this class in overenrolled, HotSeat Questions will not be assigned a grade. However, answering HotSeat questions is highly encouraged, since it reinforces the material in class and enhances student learning.

**HOMEWORK:** Each lecture will have a corresponding homework on Pearson MyLab Math. Generally, each homework assignment is due at 11:59pm on the date of the following lecture (i.e. if Lesson 1 is on a Monday, then the homework for Lesson 1 is due Wednesday at 11:59pm). The full list of due dates is included in the course calendar.

**QUIZZES:** Quizzes are assigned in MyLab Math. Quizzes will be discussed in recitation. Due dates for the quizzes are listed in the course calendar.

The quiz will open at 11am each Wednesday and will remain open until 11:59pm on Thursday. The actual time you can work on the quiz is 120 minutes.

MIDTERM	EXAMS:	There will	be three	one-hour,	multiple	choice,	evening midterm	exams.
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Exam	Date	Time	Location
Exam 1	Wed Feb 9, 2022	6:30pm	ELLT
Exam 2	Wed Mar 9, 2022	6:30pm	ELLT
Exam 3	Wed Apr 20, 2022	6:30pm	ELLT

More information will be announced closer to each exam.

**FINAL EXAM:** 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.

Exam	Date	Time	Location		
Final Exam	ТВА	ТВА	ТВА		

## GRADING SCALE AND METHOD

Total grades are calculated according to the following percentages:

Assessment	Percent
HotSeat Questions*	0%
Homework	20%
Quizzes	10%
3 Exams @ 15% each	45%
Final Exam	25%
Total	100%

\*HotSeat Questions are optional but highly encouraged.

The maximum percentages to earn each grade are:

A+	А	A-	B+	В	B-	C+	С	C-	D+	D
97%	93%	90%	87%	83%	80%	77%	73%	70%	67%	60%

For each of these letter grades, it's possible that at the end of the semester a somewhat lower percentage will be enough to earn that letter grade. (In other words, the lowest percentage to earn, for example, an A could be lower than 93% but will not be higher than 93%.)

#### MISSED ASSIGNMENTS

Because there are over 1000 students in this class, we cannot accommodate missed assignments on a case by case basis. However, we know that students have busy lives and sometimes miss a deadline. To accommodate this we will drop the lowest scores in each category below:

- 3 Homework assignments
- 1 Quiz grade

No exam grades will be dropped. There will be no makeup quizzes or makeup HotSeat Questions.

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 may be exempted by your TA from the overall total.

#### GRADE POSTING

Homework and Quiz grades will be graded automatically and posted in MyLab Math. Exam scores will be posted in Brightspace within 5 business days.

## TECHNICAL, CLASSROOM, AND COLLEGE POLICY INFORMATION

#### SYLLABUS AMENDMENTS

The information in this syllabus is subject to change in extenuating circumstances. Changes to the course syllabus will be provided to the student in writing 1 week prior to the event.

#### LAST COURSE REVISION DATE

Jan 10, 2022

#### STUDENT CONDUCT AND CLASS POLICIES

#### **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: Monday, February 7

Please see the <u>Purdue University Academic Calendar</u> for other important dates.

**Transfers:** If you transfer sections of MA 16600, 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.

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

**TA Office Hours:** <u>http://www.math.purdue.edu/academic/officehours</u>. You may attend any of the scheduled hours in the Math Resource Room (MATH 205/MATH 211). The purpose of the HMRR is to foster student learning. The HMRR 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

## **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. <u>www.purdue.edu/science/Current\_Students/cosine</u>
- Here is a list of math tutors for hire: <u>www.math.purdue.edu/academic/tutor/</u>

## UNIVERSITY POLICIES

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 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 the lecturer: here are instructions for how to do this:

## https://www.purdue.edu/drc/students/course-accessibility-letter.php

**Mental Health/Wellness Statement:** 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 <a href="http://www.purdue.edu/caps/">http://www.purdue.edu/caps/</a> during and after hours, on weekends and holidays, or through its counselors physically located in the Purdue University Student Health Center (PUSH) during business hours.

Academic Guidance in the Event a Student is Quarantined/Isolated: Whether you have tested positive for COVID-19 or are quarantining because of COVID-19 exposure, a nurse case manager from the Protect Purdue Health Center will provide guidance and help you make arrangements at every step of the way. The PPHC will provide you with medical clearance to return to campus activity once your quarantine or isolation period is complete. You may call PPHC at 765-496-INFO (4636) or toll-free at 833-571-1043 at any time 24/7 for assistance.

Academic case managers are assigned to undergraduate and Pharmacy professional students who test positive or have to quarantine due to exposure to COVID-19. The role of the academic case manager is to help students as they navigate academic concerns, communication with faculty, as well as providing various resources and strategies to be successful during their time away from in-person course attendance.

For more information about academic case managers, contact: <u>acmq@purdue.edu</u>.

For more information about quarantine and isolation, please see: <u>https://protect.purdue.edu/protect-purdue-health-center/quarantine-isolation-resources/#students</u>

**Attendance Policy:** When conflicts or absences can be anticipated, such as for many University-sponsored activities and religious observations, the student should inform their TA of the situation as far in advance as possible. For unanticipated or emergency absences when advance notification to the TA is not possible, the student should contact the TA as soon as possible by email or phone. When the student is unable to make direct contact with the TA and is unable to leave word with the TA's department because of circumstances beyond the student's control, and in cases falling under excused absence regulations, the student or the student's representative should contact or go to the <u>Office of the Dean of Students website</u> to complete appropriate forms for instructor notification. Under academic regulations, excused absences may be granted for cases of grief/bereavement, military service, jury duty, and parenting leave. For details, see the <u>Academic Regulations & Student Conduct</u> section of the University Catalog website.

Guidance on class attendance related to COVID-19 are outlined in the <u>Protect Purdue Pledge for Fall 2021</u> on the <u>Protect Purdue website</u>.

Individuals who test positive for COVID-19 will be required to isolate per medical protocols and cannot attend class. An unvaccinated individual who has had a high-risk exposure may not attend class and will be required to quarantine for 14 days after any and every such high-risk exposure, regardless of symptoms. The impact of a potential 14-day absence(s) may vary depending on the academic course work for each individual. We will try to accommodate students by excusing the student or allowing the student to make up work, when possible. However, remote access to courses, activities, and materials (other than lecture recordings and online homework) cannot be guaranteed.

**Classroom Guidance Regarding Protect Purdue:** Any student who has substantial reason to believe that another person is threatening the safety of others by not complying with Protect Purdue protocols is encouraged to report the behavior to and discuss the next steps with their instructor. Students also have the option of reporting the behavior to the <u>Office of the Student Rights and Responsibilities</u>. See also <u>Purdue University Bill of Student Rights</u> and the Violent Behavior Policy under University Resources in Brightspace

**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 <a href="http://www.purdue.edu/odos/academic-integrity/">http://www.purdue.edu/odos/academic-integrity/</a>

**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 and the course web page: <a href="https://www.math.purdue.edu/~kthood/MA166">https://www.math.purdue.edu/~kthood/MA166</a> Spring2022.html