

SYLLABUS: MA 48400 - Seminar On Teaching College Algebra And Trigonometry

Purdue University
Department of Mathematics
Fall 2025

GENERAL INFORMATION

Instructor: Dr. Rachael Kenney
E-mail address: rhkenney@purdue.edu
Office: MATH 702
Office Hours: By appointment
Class Will Meet: MWF 3:30-4:20

COURSE DESCRIPTION:

- This course is a seminar on the teaching of mathematics for undergraduate mathematics education students. It provides supervised teaching experience along with a chance for students to perfect their knowledge of algebra before going on to be high school teachers. Students who take this class will co-teach a section of MA 15300: College Algebra. MA 48400 will be scheduled at the end of the teaching day and provide a place for students to share their teaching experiences for the day, consider aspects of student thinking and understanding in the class, and prepare ideas for teaching the next lessons.

LEARNING OUTCOMES


- Students who complete this course will develop their pedagogical content knowledge for teaching mathematics, understand practices for using mathematical discourse in the classroom, practice techniques for engaging students in active learning, and enhance their understanding of how to create and manage a classroom learning environment.

LEARNING RESOURCES, TECHNOLOGY & TEXTS

- ALEKS Learning System
- Brightspace

COURSE ASSIGNMENTS AND GRADING

This course contains a Key/Common Assessment(s) that must be submitted into Watermark. Not submitting the assignment into Watermark will result in an incomplete for the course.

- Your grade will be based on a point system, with **200** points possible:
 - 70 points comes from your teaching work (daily preparation and attendance, proctoring at least 3 exams, etc) and classroom observations.
 -  Teaching Observations (Key Assessment). During the semester, I will visit your MA 153 class and evaluate your teaching 1-2 times. These visits will be announced in advance. An individual meeting (30-50 minutes) will

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be scheduled with us following each observation to discuss and share feedback.

- 50 points will be based on class participation, which includes taking part in discussions regularly, being ready to discuss readings or homework tasks that have been assigned, and engaging in in-class activities.
- 80 points are based on course assignments. These vary from semester to semester based on things we choose to work on, and can include activities from categories such as:
 - Questioning/Writing Tasks in mathematics
 - Teaching Reflections
 - Lesson Planning
 - Video self-analysis
 - Peer Observations
 - Getting to know students' mathematical ways of thinking
- **Homework** will be given each day to help you prepare to teach mathematics. You are expected to be prepared to present and discuss the mathematics and pedagogy related to several algebra problems or other assigned tasks each class. Some short readings may also be assigned to discuss in class.
- No tests or quizzes are scheduled for this course
- Students who get at least 97% of the total points in this course are guaranteed an A+, 93% guarantees an A, 90% an A-, 87% a B+, 83% a B, 80% a B-, 77% a C+, 73% a C, 70% a C-, 67% a D+, 63% a D, and 60% a D-; for each of these grades, it's possible that at the end of the semester a somewhat lower percentage will be enough to get that grade.

ATTENDANCE

- This course follows Purdue's academic regulations regarding attendance, which states that students are expected to be present for every meeting of the classes in which they are enrolled. Attendance will be taken at the beginning of each class and lateness will be noted. When conflicts or absences can be anticipated, such as for many University-sponsored activities and religious observations, the student should inform the instructor of the situation as far in advance as possible. For unanticipated or emergency absences when advance notification to the instructor is not possible, the student should contact the instructor as soon as possible by email or phone. When the student is unable to make direct contact with the instructor and is unable to leave word with the instructor'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 [Office of the Dean of Students \(ODOS\) website](#) to complete appropriate forms for instructor notification. Under academic regulations, excused absences may be granted by **ODOS** for cases of grief/bereavement, military service, jury duty, parenting leave, or emergent or urgent care medical care.
- Attendance in YOUR MA 15300 class is also mandatory. If there is an emergency and you cannot teach, you must make arrangements for a substitute. The first place to look for substitutes should be your MA 48400 classmates. Please let me know of changes due to an emergency.

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ADDITIONAL EXPECTATIONS

- Be ready to participate actively in MA 484 and be (over)-prepared to teach MA153 each day.
- Turn off cell phones during class. Texting during class is not appropriate (You should make this clear with your own students too). If you there is an emergency and you need to use your phone please step outside of the classroom.
- Please dress appropriately when teaching. Jeans and T-shirts are okay, but avoid ripped clothing or T-shirts with inappropriate sayings.
- Ask questions and seek help when needed! There are a lot of resources and people available to support you!

Your Office Hours

As an instructor, you are each required to hold an office hour 1 hour a week. You will share an office in *MATH 746*.

MENTAL HEALTH STATEMENT

- **If you find yourself beginning to feel some stress, anxiety and/or feeling overwhelmed, try [Therapy Assistance Online \(TAO\)](#)**, a web and app-based mental health resource available courtesy of Purdue Counseling and Psychological Services (CAPS). TAO is available to all students at any time by creating an account on the [TAO Connect website](#), or downloading the app from the App Store or Google Play. It offers free, confidential well-being resources through a self-guided program informed by psychotherapy research and strategies that may aid in overcoming anxiety, depression and other concerns. It provides accessible and effective resources including short videos, brief exercises, and self-reflection tools.
- **If you need support and information about options and resources**, please contact or see the [Office of the Dean of Students](#). Call 765-494-1747. Hours of operation are M-F, 8 a.m.- 5 p.m.
- **If you find yourself struggling to find a healthy balance between academics, social life, stress, etc.**, sign up for free one-on-one virtual or in-person sessions in West Lafayette with a [Purdue Wellness Coach at RecWell](#). Student coaches can help you navigate through barriers and challenges toward your goals throughout the semester. Sign up is free and can be done on BoilerConnect.
- **If you're struggling and need mental health services: 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 mental health support, services are available. For help, such individuals should contact [Counseling and Psychological Services \(CAPS\)](#) at 765-494-6995 during and after hours, on weekends and holidays, or by going to the CAPS offices in [West Lafayette](#) or [Indianapolis](#)

Basic Needs Security

Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support ([ODOS services and information portal](#)). There is no appointment needed and Student Support Services is available to serve students 8 a.m.-5 p.m. Monday through Friday. Considering the significant disruptions caused by the current global crisis as it relates to COVID-19, students may submit requests for emergency assistance from the [Critical Need Fund](#)

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In addition to the Office of the Dean of Students, some additional resources that could be helpful include:

- [*Student of concern reporting*](#) (anyone on campus can submit a report if they are unsure where to go or in what way they can help a student - it does not need to be an emergency).
- The [*ACE Campus Food Pantry*](#) (open to the entire Purdue community)
- The [*Center for Advocacy, Response & Education \(CARE\)*](#) (open to the entire Purdue community) “provides support and advocacy for survivors of sexual violence, dating violence, and stalking.

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 is submitted the greater the opportunity for the university to investigate the concern. More details are available on our course Brightspace under University Policies and Statements.

NON-DISCRIMINATION STATEMENT

Purdue University is committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her potential. A hyperlink to Purdue’s full Nondiscrimination Policy Statement is included in the Academic Resources table on your Brightspace homepage.

ACCESSIBILITY

Ensuring that Purdue students have access to equitable learning experiences is a university-level commitment and is the responsibility of all members of the Purdue community. The Disability Resource Center (DRC) is a key partner in this work and is a resource for students and instructors to ensure access it met. The *Student Services* widget in Brightspace links to the DRC. In this course, I strive to make the course materials, activities, and assessments accessible to all. Please schedule a meeting with me or talk with me after class to discuss any changes that we could try to implement to best meet your needs.

Useful Contacts in the Department

Name	Role	Office	Phone
Patrick Devlin pdevlin@purdue.edu	Course Coordinator	MATH 804	#41918
Shu-Fang Chang	Admin Assistant - study room scheduling, copies, supplies	MATH 835	#41901
Cindy Jameson	Payroll	MATH 917	#41910
Joe Chen	Roster and Schedule	MATH 848	#41978
Dominic Naughton	Graduate Teaching Director	MATH 826	#41906

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EMERGENCY PROCEDURES:

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. Relevant changes to this course will be posted onto the course website or can be obtained by contacting the instructors or TAs via email or phone. You are expected to read your @purdue.edu email on a frequent basis.

A link to Purdue's Information on [Emergency Preparation and Planning](#) is located on our Brightspace under "University Policies and Statements." This website covers topics such as Severe Weather Guidance, Emergency Plans, and a place to sign up for the Emergency Warning Notification System. I encourage you to download and review the [Emergency Preparedness for Classrooms document](#).

EMERGENCY NOTIFICATION PROCEDURES are based on a simple concept –

- If you **hear a fire alarm inside, proceed outside.**
 - **Emergency Assembly Area Location for BEERING (after you have evacuated your building):**
 - Please proceed to the south side of the Building and assemble near the Fountain area.
 - Secondary location (in case of inclement weather): Ground floor Matthews Hall
- If you **hear a siren outside, proceed inside.**
 - **For Tornado Warning:** move to a lower floor or to the basement in Beering. Position yourself in an interior corridor away from glass. Be prepared to kneel facing the wall and cover your head.
 - **For other shelter-in-place warnings:** If possible, take refuge in a room that can be locked. The room should also provide limited visibility to anyone that is outside of it.