

# Slide Syllabus for Math 41

## Trigonometry and Analytic Geometry

Instructor:  
Sara Jamshidi

August 25, 2014

# BASIC INFORMATION

# Course Information

## Math 41: Trigonometry and Analytic Geometry

- ▶ **Course Number:** 113341
- ▶ **Section:** 07
- ▶ **MyMathLab ID:** hair97316
- ▶ **Class Time:** MTWF 4:40 PM - 5:30 PM
- ▶ **Location:** 105 Wartik Lab
- ▶ **Instructor:** Sara Jamshidi
- ▶ **Prerequisite:** Math 21, or equivalent
- ▶ **Text:** *Algebra & Trigonometry*, 2nd ed., Kirk Trigsted, Pearson
- ▶ **Website:** <http://jamshidi.weebly.com/math-41.html>

# Instructor Information

## **Sara Jamshidi** (jam-SHEE-dee)

- ▶ **Office:** McAllister Bldg 419
- ▶ **E-mail:** jamshidi@math.psu.edu
- ▶ **Office Phone:** (814) 863-9049 (avail. during office hours)
- ▶ **Office Hours:** MTWF 5:30pm - 6:30pm (*after class*), R 4:30pm - 5:30pm, or by appointment.

# COURSE GOALS, OBJECTIVES & TOPICS

# Course Goals

Goals: Students will

- ▶ recognize, solve, and graph linear, quadratic, exponential, logarithmic, and trigonometric equations and inequalities
- ▶ identify algebraic and graphical properties of the above functions
- ▶ know trigonometric identities and apply them in simple geometric settings

# Course Objectives

- ▶ There are many objectives in this course in order to bring us to our goal.
- ▶ I will announce the objectives at the beginning of every lecture.
- ▶ These objectives are written as sentences you would be able to say once you've learned the material. They are meant to be a checklist for you.

# Tentative Course Schedule

Introduction & Review .....	8/25
Chapter 1: Equations, Inequalities, and Applications ...	8/26 - 9/3
Chapter 3: Functions .....	9/5 - 9/17
Chapter 4: Polynomial and Rational Functions .....	9/19 - 10/1
Additional Topics .....	10/3 - 10/6
Chapter 5: Exponents and Logs .....	10/7 - 10/20
Chapter 6: Intro to Trig Functions .....	10/21 - 11/3
Chapter 7: Graphs of Trig Functions .....	11/4 - 11/18
Chapter 8: Trig Identities, Formulas, and Equations .	11/19 - 12/5
Chapter 9: Applications of Trigonometry .....	12/8 - 12/9
Review .....	12/10 - 12/12



# COURSE PHILOSOPHY ON LEARNING

# Course Philosophy – Language

Here are some of my beliefs about math:

1. Mathematics is the formalization of quantitative problem solving.
2. We are all natural problem solvers.
3. It's the *formalization* that makes math hard.

In this sense, math is like a language.

- ▶ Study math like you would a language
  - ▶ Practice daily
  - ▶ Understand terminology
  - ▶ Review! Review! Review!

# Course Philosophy - Activity

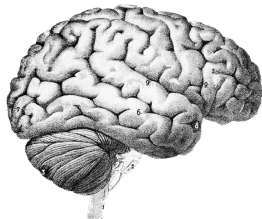
I also think math is more than a language:

1. Math is sometimes done under a time limit
2. Math is required to be accurate and precise
3. Math is expected to be presented clearly

The quickness and meticulousness required in mathematics makes learning the subject similar to learning a sport.

- ▶ Learn math like it is a sport.
  - ▶ Practice daily
  - ▶ Perfect how you do it  
(i.e. check your work, think about ways to do it better)
  - ▶ Take care of your mind like it is a muscle  
(i.e. sleep, eat well, do fun things, challenge yourself)

## Course Philosophy – Research



- ▶ **Learning Changes the Brain.** New neurons and connections between neurons form in response to that new information. The brain responds physically, chemically and functionally to everything we think and do.
- ▶ **Mistakes are Important to Learning.** When you make a mistake and reflect, you learn the concept *better* than you if you got it right the first time! Make mistakes and share them; they are learning opportunities.

# Course Philosophy – Conclusions

- ▶ My conclusions:
  - ▶ **If We Both Work, You Will Learn This Material.** If you have the practice and guidance you need, you will learn the material. I will do my best to provide you with all the necessary resources.
  - ▶ **We Need a Welcoming Environment.** We want a welcoming environment where we can all work together to think problems through. If we share mistakes, we will all learn the material better.

# Course Philosophy - Execution

With this in mind, the course is structured so that

- ▶ we learn in manageable chunks,
- ▶ we practice immediately and consistently,
- ▶ we review previous material as time allows,
- ▶ we will emphasize neatness and clarity in our written work, and
- ▶ feedback is given as soon as possible so opportunities for improvement can be utilized.

# COURSE STRUCTURE

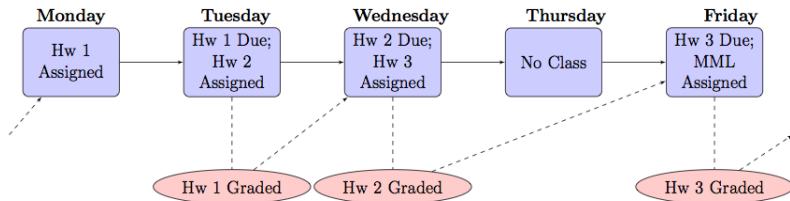
# Homework

- ▶ Homework is essential to this course.
- ▶ It will be assigned at the end of **every lecture**.
- ▶ Homework is due **at the end of the following lecture it is assigned**.
  - ▶ NO LATE WRITTEN WORK WILL BE ACCEPTED.
  - ▶ Written work can be **emailed** before 4:30 pm the day it is due.
  - ▶ You can come to **office hours** immediately after class to discuss any trouble and adjust your homework before it is graded.
- ▶ Half of your homework points are from the written work. You will be given points based on completeness and how clearly you present your steps.
- ▶ The other half will come from submitting your solutions online. Your solutions are graded as “all-or-nothing.”



# Clarification

- ▶ Written homework is assigned every Monday, Tuesday, and Wednesday.
- ▶ On Fridays, you are assigned 2 to 3 sections in MyMathLab.



# Course Outline & Assignments

## **Please check the website often!**

- ▶ All materials can be found on the website.

`http://jamshidi.weebly.com/math-41.html`

Please note that this class have very little leeway for review. I will try to review as much as possible, but it is important that you stay on top of the work.

# Attendance Policy

- ▶ Attendance is required for this class.
  - ▶ Homework will also be a tool for determining attendance.
  - ▶ I will administer quizzes if attendance is low.
- ▶ Participation is necessary for this class and, as a result, your presence is crucial to the course.
- ▶ You will be held responsible for all work covered in this course.
- ▶ It is university policy that students attend every class for which the student is scheduled.

*A student whose irregular attendance causes him or her, in the judgment of the instructor, to become deficient scholastically, may run the risk of receiving a failing grade or receiving a lower grade than the student might have secured had the student been in regular attendance (Policy 42-27).*

# Grade Point Breakdown

**Grade Policy:** Points (350 total) are distributed as follows

100 points	.....	midterm examination I
100 points	.....	midterm examination II
100 points	.....	homework/written work/participation
150 points	.....	<u>comprehensive</u> final examination

## Homework Points:

- ▶ Please check Angel for homework grades (not MML)
- ▶ Each written homework is worth 0.75 points
- ▶ Each online homework is worth 0.75 points
- ▶ Homework should total to about 85.5 points
- ▶ The remaining 14 points come from attendance, participation and quizzes.

**Grading:** Final grades are guaranteed to be at least...

A	415-450 pts	B	370-394 pts	C	315-349 pts
A-	405-414 pts	B-	360-369 pts	D	270-314 pts
B+	395-404 pts	C+	350-359 pts	F	0-269 pts

# FINAL THOUGHTS

# Homework Help

- ▶ Talking problems out is one of the **\*BEST\*** things you can do to help you learn math. I highly recommend:
  1. Form study groups; make friends!
  2. Visit office hours
  3. Check out Penn State Learning
    - ▶ `http://pennstatelearning.psu.edu/resources/meet-math-tutor`

# Disability Access Statement

Penn State welcomes students with disabilities into the University's educational programs. The Office for Disability Services (ODS) Web site provides contact information for every Penn State campus: <http://equity.psu.edu/ods/dc1>. For further information, please visit the Office for Disability Services Web site: <http://equity.psu.edu/ods>.

In order to receive consideration for reasonable accommodations, you must contact the disability services office, participate in an intake interview, and provide documentation: <http://equity.psu.edu/ods/guidelines>. If the documentation supports your request for reasonable accommodations, your campus disability services office will provide you with an accommodation letter. Please share this letter with me ASAP. You must follow this process for every semester that you request accommodations.

# Academic Integrity Statement

Academic integrity is the pursuit of scholarly activity free from fraud and deception and is an educational objective of this institution. All University policies regarding academic integrity apply to this course.

Academic dishonesty includes, but is not limited to, cheating, plagiarizing, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person or work previously used without informing the instructor, or tampering with the academic work of other students. All exam answers must be your own, and you must not provide any assistance to other students during exams.

Any instances of academic dishonesty WILL be pursued under the University and Eberly College of Science regulations concerning academic integrity.



# When In Doubt...

Talk to me as soon as possible.

No matter how small your difficulties may seem, I am willing to work with you.

I want everyone in this class to succeed. **Everyone.**

Help me with my goal by

- ▶ being committed to your own success,  
(make time for your work)
- ▶ being committed to the success of your classmates,  
(share ideas and mistakes)
- ▶ keeping perspective.  
(this is just one class, don't get too stressed out)