Welcome to MATH 108!
Contemporary Precalculus
Instructor: Cindy Blois
TA: Pengbin Feng
Plan for today

• **WHAT** is this course about? What are our goals?
• **HOW**… will we achieve our goals?
• **WHO**…are we?
WHAT...are the main topics in the course?

- Mathematical foundations for calculus...
  - Variables and relationships between them
  - functions and graphs
  - exponential and logarithmic functions
  - trigonometry
WHY calculus?

- small stuff: quantum mechanics
- medium stuff: profits, business, medicine, etc.
- big stuff: planets, dinosaurs, etc.

It shows up everywhere!
WHAT...are the main overall goals of the course?

1. To develop the mathematical foundation required for calculus.

2. To gain a conceptual and intuitive understanding of the course topics and connections between them.

3. To apply our knowledge to solve problems, and generally, develop our problem-solving skills.

4. To communicate our solutions well, explaining our reasoning.
High School Math vs. College Math
(a broad generalization)

High School
• algorithms
• formulas
• tools

College
• critical thinking
• reasoning
• independence
• communication
HOW…will we learn and engage?

1. Lectures
2. Discussion Sessions
3. Homework, Practice Problems
4. Quizzes, Midterm Exams, Final Exams
Lectures

style:

- Focus on intuitive/conceptual understanding.
- Mixture of traditional lecture and interactive.

expectations:

- Participate, be engaged.
- Be kind and respectful!
- Ask questions!
Lecture notes

• The “Doc Cam” will usually be used to present notes.

• You are encouraged to take your own summary notes, but there is no need to copy all lecture notes word-for-word in class.

• All course notes will be posted on the course webpage after class:
  - http://www-bcf.usc.edu/~cblois/ m108.html
Lectures: Clickers

- You will use “clickers” to respond to multiple-choice questions during the lecture.

- Clicker questions are sometimes difficult. You may get them wrong on the first try…that’s normal!

- You are graded for participation only. If you answer at least 75% of clicker questions in at least 75% of lectures, you will get a 100% clicker participation grade.
Discussion Sessions

• Smaller group setting.

• Focus on problem-solving.

• All activities are designed by the TA.
Practice Problems

• Practicing problems is essential to achieving the learning goals in this course.

• Problem sets will usually include two components

  - Quiz Practice — not to be handed in, but weekly quiz problems will be very similar
  - Homework — to be handed in each week
Quizzes/Exams

• Weekly quiz - in discussion session, based on quiz practice problems

• Unless otherwise noted, electronic devices, (including calculators), books and other notes will not be allowed during quizzes or exams.
Academic Integrity

- Please see USC policies, as linked in syllabus.

- Collaboration is encouraged on homework; however, you must each write and hand in your own solutions.

- List your collaborators (if any) on your assignment.
Resources

• People: peers, TA, and instructor
• Supplemental Instruction
• Office hours (Cindy + TA)
• Math Centre - KAP 263
• Disability Services and Programs
• Counseling
e-mail

• When emailing me, please write “MATH 108 - …” in the subject line.
Full Syllabus

• Posted to the course webpage.
WHO are you?
...and WHY are you here?

• Activity (10-15 minutes). Instructions:

1. Write down your name at the top of the page.

2. Write your *story*.

   For example…What brought you to this classroom? What are your goals? How do you think this course will relate to your life and/or your goals?

3. Write down one question for a classmate.

4. Write down one question for me.
Find a partner and ask them your question.
Please hand in your papers on the way out.

Thank you and see you on Wednesday!