

Welcome to Pre-Calculus Algebra, Flipped!

I have a great semester planned for you, with a wide variety of opportunities for you to discuss, read, write, listen to, think about, and thereby succeed in mathematics. Find everything you want to know about this class on the course website:

http://web.csulb.edu/~jchang9/flipped_precalculus.html.

This course will be run as a **"flipped" class**, which means the sequence of work you will be doing for this class is **reversed**. Like all changes in life, some of them are easier to adapt, some of them take time to get used to, and there are also changes that are difficult to embrace regardless how much time you give it. I will not pretend that flipped learning will be one-size-fits-all. What I intend to encourage and really emphasize through the flipped learning paradigm is **the direct contact I get to have with each one of you during class** by eliminating the static "lectures" and infusing the **active** "learning" through in-class exercises. By doing so, hopefully you will gain much deeper understanding of many of the topics we learn in this course.

I hope that you will be able to embrace this effective way of learning (you will see some hard evidences on how flipped learning can increase many desirable student learning outcomes in suggested videos and links from Class 1 pre-class tasks.) with an open heart. If you don't think this class is going to work for you because of the time commitment you can devote to this class is limited due to other factors, please feel free to explore alternative classes before the drop deadline. **I want you to be completely aware that I am not trying to be lazy for not "lecturing" in class; in fact, I spend, on average, 3 hours to make a single 10~15 minute video that you watch.** I am willing to spend so much more time in delivering a learning environment that I know will be a lot more effective for your growth in the long run. If there is anything I can do to elevate your learning experience in this class even further, please do not hesitate to let me know at ANY TIME during the semester. Let's keep that communication channel open!

It is imperative (and required as part of your course work) that you carefully read and complete the following tasks **BEFORE the first day of class**.

(Pre-Class Tasks)

- Study the **syllabus** from the course website:
http://web.csulb.edu/~jchang9/flipped_precalculus.html.
- Complete the **Pre-Class Task for Class #1**. **I am holding you accountable for these pre-class tasks** throughout the semester without assigning any work to gauge your participation because I believe that you care about your own education just as much as I do. You might be able to "wing" it at times during in-class discussions due to your familiarity with the topics, but your lack of preparation might hinder your ability to achieve high-level understanding that is required in advanced mathematics courses. So, do yourself a favor, **come to class prepared even when there is no points associated with it**.

(In-Class Tasks)

I expect you to have previewed the materials I assigned in the Pre-Class Tasks paragraph and show up to class with questions for each other and me. These questions could simply be a reiteration of the concepts from video lectures if you just need clarifications.

We will start with a quick Q&A session on the materials that you are responsible for learning prior to class meeting and proceed with a few fun exercises to get you acquainted with the flipped class learning paradigm. We will finish the class meeting with a group quiz in your newly formed. Download (if a member of the group has a laptop, tablet, or smart phone) Group.Quiz.0

(http://web.csulb.edu/~jchang9/m113_flipped/Group.Quiz.0.pdf) from the course website (or simply print a copy and bring with you). **Every one turns in their own solutions but only one person's work will be graded.** Everyone in the group gets the same grade as that person.

(Post-Class Tasks)

- Sign up for WebAssign by following the instruction:
http://web.csulb.edu/~jchang9/m113_flipped/IntroToWebAssign_m113.pdf. Please do this as soon as possible to prevent any delay in your study.
- Watch Study Strategies for Effective Learning in Mathematics Classes:
<https://www.youtube.com/watch?v=RgzcMZ-Sk10>
- (You can do this anytime throughout the semester) Come by my office to say hi. You can identify my availability with this calendar:
<http://www.csulb.edu/~jchang9/teaching.html>. In general, you can check my availability here before making an appointment with me.

In case you are psyching yourself up for how difficult this class might be, stop wondering now. If you allow yourself to be accepting to new ways (a flipped paradigm, that is) to learn mathematics, you will have little trouble passing the class.

Lastly, let me tell you a little bit about why I decided to flip this class. I have been unsatisfied with some of the student learning outcomes such as students' abilities to orally communicate mathematics and in writing. It seemed to me that most students only care about remembering the steps to getting the answers correctly without being curious about why that method works. This way of thinking is reflected clearly in their writing. For example, students typically fail to explain "why" they write what they write, they assume that the reasons are not important and since I would be the only person reading their work, I would know why anyways. This is not the type of scholars I want to produce for the workforce. I am interested in providing a **learning environment that fosters lifelong abilities that are transferrable to situations outside of the classroom**. Grades are superficial in the sense that no one at your work will assign you a 72% or 98%; instead, what matters is whether or not you can complete the ultimate task which can often be reached through multiple paths. Pre-Calculus is

simply a medium and a vehicle for us to reach that goal. I am hopeful that by the end of this class, you will have acquired a skill set that can be applied to many other settings in your life experiences, particularly, leads to your success in advanced mathematics courses such as Calculus.

I promise this email does have an end. I would like to add in closing that I am willing to do anything to make sure that all of you are successful in your study in MATH 113. I will try the best I can to help you get the most out of this class! Please do not hesitate to ask questions and send me your comments at any time.

Looking Forward,

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