Topics in Precalculus

EDU 5900 section 48 Summer

Mr. Bruce Waldner bcwaldner@aol.com

The course will be offered at the Suffolk Campus of Molloy College. However, you will need to use Canvas, our online course system for course materials. So, you will need to become familiar with Canvas.

Log-in using your Molloy e-mail username and password. Click the "Courses" tab (top left-hand side of the page) & select: "Creative Connections" in the drop-down menu.

Log-in prior to the course just to ensure that your account has been set-up properly!

Take the Canvas Student Tour or visit the Canvas Student Quickstart Page

Course Description: Precalculus is developed by each School or District differently. In this course, we will focus on topics taught in many schools and compare with those topics suggested in the Common Core Standards (although, I am not aware of any LI Schools that use the Common Core syllabus for Precalculus) A true Precalculus course is a course that is designed to prepare students to take a Calculus course. If you are planning to begin teaching Precalculus this course will help you prepare for a new prep. If you already teach Precalculus in your school, you can help improve your course.

Topics will include:

Defining a goal for your Precalculus course, "What is Precalculus?", Topics taught in Precalculus in various Schools around Long Island, Are there important topics that are missing, What Calculus teachers (AP and Non AP) want in a Precalculus course, Assessing student readiness, Preparing students for a precalculus course, Historical development of Calculus and Precalculus, Topics in the 12^{th} Grade Common Core syllabus, alternative 12^{th} grade courses, enrichment activities.

Requirements for All Students:

- Find 2 U-Tube videos each of which is about a topic you or teachers in your school plan to teach in Precalculus this next year; submit a brief description (one or two sentences for each)
- Complete all class activities
- Pick three PreCalculus topics that you teach or will be teaching this next year and design a segment of each lesson, along with the lesson topic and goals, and include an historical perspective or leading mathematicians and their contributions to the development of that topic.
- Submit a proposal for developing a modified curriculum for Precalculus in your school. Include a justification for the proposal.
- Research the many different proofs of the Pythagorean Theorem and write two different proofs you found or create a new one you think is unique.
- Complete all class activities, including but not limited to all Canvas assignments, Canvas readings, Canvas discussions, watching videos through Canvas, participating in discussions on Canvas.

Day	Modules	Content
	Introduction Module Day 1 Module	Introduction Module Intro Daily Discussion What is Precalculus? Topics taught in Precalculus around the Island and more Goals for Precalculus: In your school In your classroom In other schools What Calculus Teachers want their students to know: Particular skills needed prior to taking a Calculus class Topics they see need taught
	Day 2 Module	Historical Development of Calculus and Precalculus Why students take calculus Other alternative twelfth grade courses Calculus or Statistics or both? Missing topics
	Day 3 Module	Topics in the 12th Grade Common Core syllabus: Are there any of these topics that you would like to incorporate into your Precalculus course that are not there already? Do you see any advantages in the Common Core?

		Curriculum over the current Precalculus cure you teach? Alignment with your Precalculus goals.
	Day 4 Module	Assessing Student readiness for Precalculus. Catching up old topics missed or not done thoroughly enough because of lost time during Covid. Preparing students for Precalculus. Enrichment Presentations of course work

Grading:

In all discussions, students are expected to participate by responding to the instructor and classmates with quality responses. You are expected to have contributions in each discussion that is part of the Canvas course documents. You are encouraged to share resources and ask questions!

No assignments may submitted after the allotted due date & time.

Netiquette: Netiquette is a set of rules for behaving properly online. Something about cyberspace makes it easy for people to forget that they are interacting with other real people. The following bullet points cover some basics to communicating online:

- Be sensitive to the fact that there will be cultural and linguistic backgrounds, as well as different political and religious beliefs, plus just differences in general.
- Use good taste when composing your responses in Discussion Forums. Swearing and profanity is also part of being sensitive to your classmates and should be avoided. Also, consider that slang can be misunderstood or misinterpreted.
- Don't use all capital letters when composing your responses as this is considered "shouting" on the Internet and is regarded as impolite or aggressive. It can also be stressful on the eye when trying to read your message.
- Be respectful of others' views and opinions. Avoid "flaming" (publicly attacking or insulting) them as this can cause hurt feelings and decrease the chances of getting all different types of points of view. • Be careful when using acronyms. If you use an acronym, it is best to spell out its meaning first, then put the acronym in parentheses afterward, for example: Frequently Asked Questions (FAQs). After that, you can use the acronym freely throughout your message.
- Use good grammar and spelling.

Technical Support: Canvas Support is accessed through the HELP feature in the lower left hand corner of Canvas. You can either call Canvas at (844) 408-6455 or use the online chat feature and both services are available 24 hours 7 days a week.

Technology Support Services is located in Kellenberg 022 and can be reached via phone: 516.323.4800, email: helpdesk@molloy.edu or twitter: @molloyTSS