

Metropolitan Business Academy

Pre-Calculus Syllabus

Access & Contact Information:

Instructor:		Mr. Lin	
Google Drive:	https://tinyurl.com/LinPreCalculus	Google Classroom:	Class code: bry6zj
Email:	harriuslin@gmail.com	Remind:	@linpre-cal

Course Description:

This course is designed for students who have completed Algebra II. The course will provide an in-depth examination of the topics essential to the study of AP Calculus, the Math Session of SAT, and SAT II Math II. Students will be actively engaged in analyzing families of functions via problem-solving and reasoning through the lens of numerical, graphical, and algebraic approaches. Those families of functions include exponential, logarithmic, rational, polynomial, and trigonometric functions.

Data analysis and mathematical model of real-world situations will be an integral part of this course to enhance student understanding of these families of functions. Students are required to keep a notebook and complete daily homework assignments.

Course Sequence:

The course includes several units; the following is an approximate timeline indicating when particular units are taught.

Trimester I	<ul style="list-style-type: none"> • Introduction to Functions • Exponential Functions • Logarithmic Functions
Trimester II	<ul style="list-style-type: none"> • Polynomial Functions • Rational Functions • Series and Sequences
Trimester III	<ul style="list-style-type: none"> • Trigonometry Basics • Trigonometry Functions • Trigonometric Identities

Attendance & Tardiness:

As in college or at a career, you are expected to arrive to class prepared and on time each day. **If you are absent, you are responsible for making up missed assignments.** If you are aware that you are going to be absent, please check-in with Mr. Lin, our class Google Drive, our Google Classroom, and other students on what note and assessments you will miss.

Honors Contract:

You have the opportunity to receive honors credit for this class if you choose. To receive honors credit, you will need to complete at least 16 out of the 20 SAT chapters. You will sign an honors contract and agree to meet all

requirements. Failure to meet the honors requirements and to complete the honors project will result in termination of the honors contract and make one only eligible for the regular class credit.

21st Century Competencies:

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| (1) Problem Solving and Critical Thinking | (2) Accessing and Analyzing Information |
| (3) Communication and Collaboration | (4) Creativity and Innovation |
| (5) Initiative, Self-Direction, and Accountability | (6) Citizenship and Responsibility |

Performance Task Chart:

Title of Major Performance Task	Description of Performance Task	21st Century Competencies met by Performance Task
Math Labs (3)	Description On Next Page	1,2,3,4,5,6
Homework Checks (27)	Description On Next Page	1,5
Mastery Quizzes (6)	Description On Next Page	1,2,5
Challenge of the Week Assignments (COW) (8)	Description On Next Page	3,4,5,6

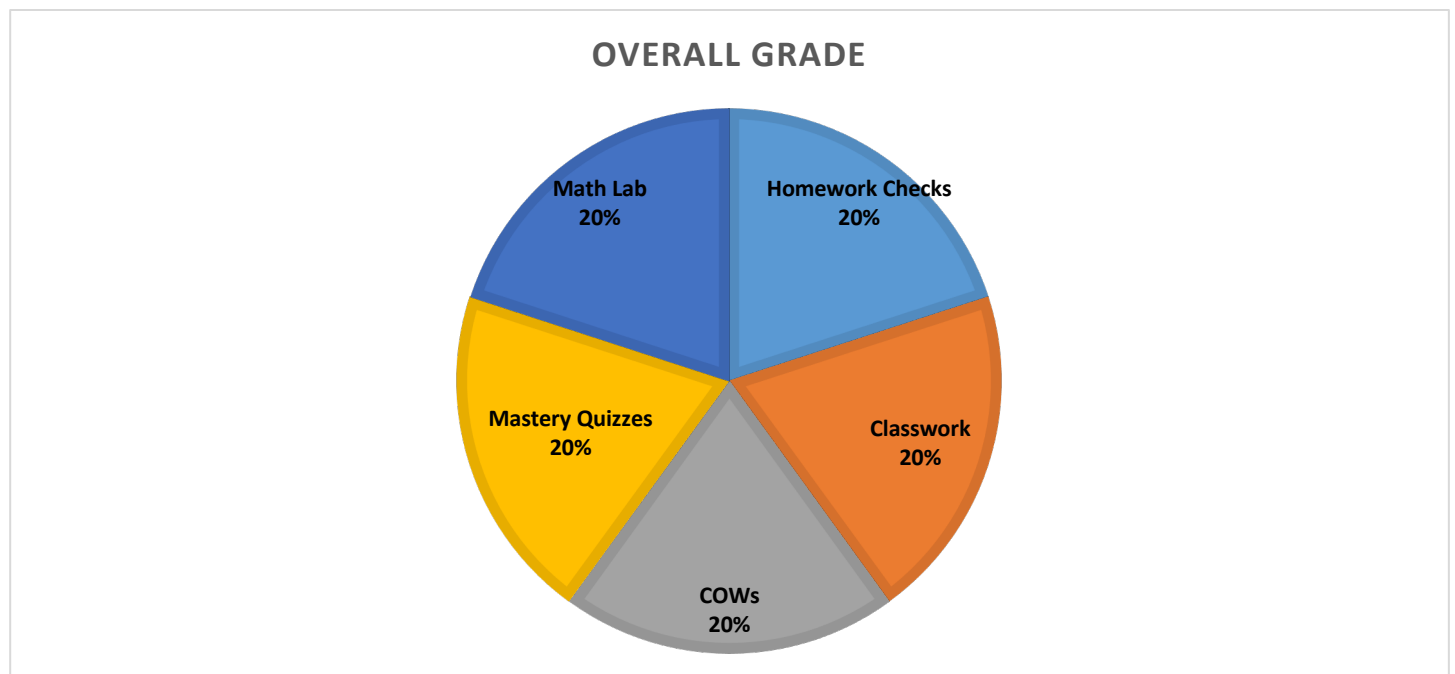
Portfolio Criteria:

In order to “pass” Pre-Calculus, students must have evidence of the following in their Pre-Calculus portfolio:

- A. Completed all eight Cows, with four of the eight scored Competent or better
- B. Completed all three Math Labs
- C. Completed all six Mastery Quizzes, with three of the six scored Competent or better
- D. Completed Midterm and Final

Work Categories and Grade Interpretation:

Throughout the three trimesters, you will be assessed on your knowledge and understanding in the following ways:



Mastery Grading (For COWs, Mastery Quizzes and Math Labs ONLY):

Mastery Language Abbreviations	Mastery Language	Progression to Meeting Standard	# Grade
XE	Exemplary	Exceeds Standard with Distinction	100
CO/XE	Competent/Exemplary	Exceed Standard	93
CO	Competent	Meets Standard	85
EM	Emerging	Approaches Standard (needs revision)	70
NY	Novice	Not Yet (needs revision)	60
NE	No Evidence	Not Much Evidence of Work Yet (needs to stay afterschool)	50
0	Zero	No Evidence of Work Yet (needs to stay afterschool)	0

For more information on our school wide policies about Mastery Based Learning and Grading, please reference the Metropolitan Business Academy Student-Parent Handbook and the Guiding Principles of Mastery Learning and Mastery Grading at www.metropolitanbusinessacademy.org.

Challenge of the Week (COWs):

Throughout the year you may be assigned a COW; this is not a four-legged creature that gives milk, but a “Challenge Of the Week”. COWs are open-ended problems that require problem-solving, communication, and will likely involve multiple drafts to reach a high level of quality. During the year we will assemble some quality COWs and publish a book called The Herd!

Math Labs (MLs):

Math Labs are hands-on assessments that require students to apply their learning to problems in a real-world problem.

Mastery Quizzes:

Mastery Quizzes are given at the end of six of the eight units. If you earn less than an emerging, you are expected to relearn the material and retake a similar exam to replace that original grade. However, this should be done within four weeks of the exam being returned to you.

Classwork:

Students will receive a daily grade each day that they are present in class. Active participation in discussions and class activities is essential for developing your ability to communicate mathematics concepts with peers and other professional. Additionally, your participation demonstrates your mastery of those mathematics concepts. The grade is out of 6 points. Points are rewarded based on students work on the classwork assessments.

Professional Conduct:

Students will receive a daily grade, which is a piece of the classwork grade, each day that they are present in class. The professional conduct grade is based on punctuality, electronic usage, in-class performance,

classwork, and occasionally, organization checks. The grade is out of 4 points. For violations (tardiness, behavior, electronics), 1 point will be taken off the daily grade for each offense.

Homework Checks:

Homework Checks are pop quizzes based on the homework assignments. Students may use their homework assignments during those pop quizzes. All questions from the Homework Checks can be found in homework assignments. Students will usually be assigned homework each class period. Each of those assignments will be corrected in the following class.

Retakes:

You can only retake the following tasks in my class: COWs, Mastery Quizzes and Math Labs. With Mastery Quizzes, students are eligible for a retake only after they have edited all mistakes on the previous attempt. However, the mastery grade of any retake assessments will not exceed the grade of competent.

*** For a retake to count, it must be completed before the end of the trimester. ***

ABSENCE AND CHEATING POLICY:

You will be responsible for making up any work that you have missed when absent from class. All make-up work is due on the following class meeting for credit. With Mastery Quizzes & Homework Checks missed due to absence, you will be responsible for making them up on YOUR time. Class time will not be given to make-up missed Mastery Quizzes, Homework Checks or HW.

In regards to cheating, students caught cheating will receive a zero and a phone call home. Both the student who shares his/her work AND the person who copies it will suffer the same consequences. I expect you to do your work and to be sure no one can copy it. This applies to Mastery Quizzes, COWs, Math Labs, Homework Checks and all other assignments for this class. If you work together on the Math Labs, please put their name on your assignment too. However, each of you still has to turn in your assignment.

****Remember, through hard work, you can achieve anything in life. Give it your best, and you will eventually be rewarded****

By signing this document, I have read and understand the policies, procedures and rules of this classroom.

STUDENT SIGNATURE:

DATE:

PRINT STUDENT NAME: