PreCalculus with Trig Syllabus

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2008-2009 Semester 2

Welcome to PreCalculus with Trigonometry! In this course you will build on your algebra and geometry knowledge to construct a deeper understanding of functions and work with more abstract forms, including trigonometric functions. You will also be exploring the concepts of limits, area, and slope while learning strategies to solve problems essential in the development of calculus. Most learning will take place as you explore and try out ideas. Support for this class is available online at www.cpm.org.

Textbook: Precalculus with Trigonometry (2nd Ed. CPM Version 4.0 ©2009)

Classroom Expectations:

Be respectful	Be on time	Be on task
Try your best	Complete all assignments	Follow the Study Team Guidelines

Materials: You need to bring the following **everyday** to class:

Notebook/Binder	Pencil	Lined paper/Graph paper
Textbook	Homework	Graphing Calculator (TI-83 Plus or TI-84 Plus suggested)

Notebook/Binder: Each student needs a 3-ring binder with the following labeled dividers:

1) Notes/Toolkits	2) Classwork	3) Homework
4) Tests & Quizzes	5) Learning Log	6) Mathematics Portfolio

Homework:

Homework is assigned every night and contains approximately 15 questions. Homework has been carefully designed to offer you practice of past skills and to help lay a foundation for future learning. You are encouraged to use your notes, classwork, previous homework, the Internet, and study teams to help you successfully complete the assignments. Find online help at www.cpm.org. Assignments and resources will be posted online at Mr. Morgan's website www.morganmath.com.

Learning Logs:

You will reflect regularly at the end of lessons in a Learning Log. These reflections include a description of your mathematical understanding in your own words and will go into a section of your binder called "Learning Log". The Learning Logs are a very important part of developing your mathematical knowledge and can serve as a reference tool and as a wealth of resources for your Mathematics Portfolio.

Mathematics Portfolio:

You will create your Mathematics Portfolio throughout the course of this class. Your portfolio is a collection of work and reflections showing the scope of your mathematical understanding and skills. It may include your best work or work illustrating growth, teamwork, problem solving, or analysis. It may show your ability to solve large or challenging problems or your use of technology or one or more of the many "Ways of Thinking". We will collect work to possibly include in your portfolio starting in the first week, and continue this process throughout the year until you complete your portfolio at the end of the course. Copies of work that you may want to use in your portfolio go into the section of your binder called "Mathematics Portfolio". A portfolio is a very large task-remember that it is important to gradually work on it and not wait until shortly before it is due.

Study Teams:

To meet the challenges of trigonometry and precalculus you will be working in study teams everyday. Working in study teams means speaking up, interacting with others, explaining and sharing ideas, asking questions, and listening to what others have to say. Learning math through study team investigations is extremely advantageous- actively participating, asking questions, discussing possibilities and concepts, and explaining your understanding to others will help you understand mathematics at a deeper level than ever before! Study team members will have particular roles in their group and both the roles and groups change throughout the course. Team roles include **Facilitator**, **Team Captain**, **Recorder/Reporter,** and **Resource Manager**.

Grading: Categories and percentages are approximate and may change based on actual assignments.

10% Classwork & Team Participation	90% – 100%	A
10% Homework	80% – 89%	B
15% Projects & Presentations	70% – 79%	C
50% Tests & Quizzes	69% or below	No Credit
15% Mathematics Portfolio		

PreCalculus with Trig Course Outline

Month	Topics	Days
January	Chapter 1: Tools for Your Journey (6 days)	9 days
February	Chapter 2: Finding Area Under a Curve (7 days) Chapter 3: Exponentials and Logarithms (5 days) Chapter 4: Circular Functions (8 days)	18 days
March	Chapter 5: Introduction to Limits (5 days) Chapter 6: Extending Periodic Functions (7 days) Chapter 7: Algebra for College Math (6 days)	17 days
April	Chapter 8: More on Limits (6 days) Chapter 9: Rates of Change (7 days)	17 days
May	Chapter 10: Vectors and Parametric Equations (4 days) Chapter 11: Polar Equations and Complex Numbers (5 days) Chapter 12: Linear Transformations – Applications of Matrices (4 days) Chapter 13: Conic Sections (3 days)	20 days
June	Final Exams Finish Portfolios Last school day of Semester 2 is on _____.	3 days