Precalculus Syllabus

# Course Overview

Instructor

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[mpmath.weebly.com](http://penningtonsshs.wordpress.com/)

Tutorials

M, Tu, Th 3:30 – 4:30pm

Extended times via request

**Remind 101**

@bde7d9

Pre-Calculus is the final course before moving into college or AP mathematics courses. As such, this course is designed to get students ready for college level mathematics. There are two main focuses of this class. First is advanced algebra and the second is trigonometry (not in order of importance or instruction.) Trigonometry connects geometry with algebra which makes it extremely applicable to many different subjects and careers. Advanced algebra completes many of the topics covered in Algebra 2 and fills in gaps in order to be ready for an AP or college course in Calculus.

# Course Materials

* Spiral (for notes)
* Binder or something to hold papers
* Loose-leaf paper
* Pencil (math and pens do not go together)
* Graphing calculator (available from library)

# Resources

See the class website, mpmath.weebly.com, for a list of extra resources for this class including a link to a free PC graphing calculator from Microsoft. Also check this website for assignments, weekly plans, extra credit, and contact information.

# Tips for Success

1. Come to class ready to be challenged, not just do some work.
2. If you think that you are “bad at math,” forget that thought.
3. Be curious. Ask a good question everyday. “Why?” is a good start.
4. When (not if,) it gets hard don’t give up, find help.

# Rules

These are the rules specifically for my classroom. All rules stated in the student handbook will also be enforced.

1. Use a respectful attitude, tone, and language with all students and the teacher.
2. Learn something everyday.
3. Come to class prepared.
4. Do not use electronics for anything that is not beneficial to what I am teaching.

# Grading and Homework Policy

Tests and Daily work make up equal parts of the grading scale (Tests 50%/Daily 50%.) Homework and assignments can be turned in late, but will lose 20% for each day it is late. Grades can be made up using Khanacademy.org or by other arrangements decided by me.

# Course Schedule



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| --- | --- |
| **SSISD Scope and Sequence Year Overview** | |
| **Pre-Calculus** | **2015-2016** |
| **First Semester** | **Second Semester** |
| **1st Six Weeks** | **4th Six Weeks** |
| **Introduction and Preparation** (4 days)  **Unit 1: Characteristics of Functions** (16 days)  P.2(F), P.2(I), P.2(D), P.2(E), P.2(J), P.2(G), P.2(A), P.2(B), P.2(C)  **Unit 2: Piecewise, Absolute Value, and Step Functions** (10 days) P.2(I), P.2(A) | **Unit 6: Vectors, Parametric Equations, Conic Sections** (11 days)  P.2(F), P.2.(P), P.4(A), P.4(B), P.4(I), P.4(J), P.4(K), P.3(A-C), P.3(F-I)  **Unit 7: Polar Coordinates, Radian Measure, and the Unit Circle** (12 days – suggested pacing)  P.2(F), P.2(P), P.4(A-D), P.3(D), P.3(E)  **Algebra Review:** (5 days)  **Unit 8: Solving Trigonometric Equations** (4 days)  P.2(O), P.5(M), P.5(G) |
| **2nd Six Weeks** | **5th Six Weeks** |
| **Unit 2: Piecewise, Absolute Value, and Step Functions** (5 days)  P.2(A), P.2(I)  **Unit 3: Exponential and Logarithmic Functions** (14 days)  P.2(F), P.2(G), P.2(I), P.2(B), P.2(C), P.2(E), P.5(M), P.5(G), P.2(N)  **Checkpoint #1 (2 days)**  **Unit 4: Right Angle Trigonometry** (3 days)  P.2(I), P.4(D), P.4(E), P.4(F) | **Unit 8: Solving Trigonometric Equations** (5 days)  P.2(O), P.5(M), P.5(G)  **Unit 9: Trigonometric Identities** (10 days)  P.2(O), P.5(M), P.5(G), P.4(C), P.2(C)  **Unit 10: Polynomial Functions** (16 days)  P.5(K), P.2(F), P.2(I), P.2(J), P.2(K), P.2(L), P.2(M), P.2(N)  **Checkpoint #2 (3 days)** |
| **3rd Six Weeks** | **6th Six Weeks** |
| **Unit 4: Right Angle Trigonometry** (10 days)  P.2(I), P.4(D), P.4(E), P.4(F)  **Unit 5: Trigonometry Laws** (12 days)  P.2(I), P.4(D), P.4(E), P.4(F), P.4(G), P.4(H), P.5(N)  **Final Exams (3 days)** | **Unit 11: Rational Functions** (14 days)  P.2(K), P.2(L), P.2(M), P.5(L), P.2(I)  **Unit 12: Sequences and Series** (12 days)  P.5(E), P.5(F), P.5(A), P.5(C), P.5(B), P.5(D)  **Final Exams** (3 days) |
| **Process standards P.1(A)-P.1(G) are integrated into each unit and their use is ongoing throughout the year.** | |