### Course Description

This is an exploratory class that will focus on becoming fluent in the language of math as well as discovering daily applications of pre-calculus. The goal of this class is to strengthen the skills learned in Algebra II and to learn new ones in preparation for Calculus. Emphasis is placed on using new definitions and theorems to formulate conclusions.

### Materials Needed

- Text: PreCalculus with Limits Ron Larson
- 1 A4 Binder
- Scientific or Graphing Calculator (required)
  - Note: Some problems cannot be solved without a calculator
- PENCILS and eraser

### **Classroom Expectations**

- Students are expected to come to class prepared and on time
  - If you are not in your desk when the bell "rings", you are late!
- No food or drink (except water) are allowed at any time
- <u>All</u> classroom conversations (spoken, written, etc.) will be conducted in English
- Translators are not allowed in class
- Everyone is expected to treat everyone/everything with respect.

### **Grading Policy**

- <u>NO</u> late work is accepted.
- Students who are absent will have 1 day per absence to turn in work. Students who miss more than 2 consecutive days must meet with the teacher outside of class.
- Projects will be counted as a test grade, quiz grade, or both.
- The Midterm (end of 1<sup>st</sup> Semester) and Final Exam (end of 2<sup>nd</sup> Semester) are each worth 10% of your final grade for the entire year.

| Grade Breakdo      | own |
|--------------------|-----|
| Participation      | 10% |
| Vocabulary/Writing | 20% |
| Homework           | 5%  |
| Quizzes            | 20% |
| Tests              | 45% |

## Participation Grade:

To track participation grades this year we will be using a classdojo.com. I will give you an access code and you will have to create a student account. Through this website you will be able to track your positive participation points as well as your negative participation points. Your participation grade will be your percent at the end of the term.

| Positive Examples                   |
|-------------------------------------|
| Asking Questions                    |
| Helping classmates during work time |
| Staying on task                     |
| Volunteering for example problems   |

| Negative Examples             |
|-------------------------------|
| Leaving for the restroom      |
| Disrespect                    |
| Homework not started/complete |
| Distracting other students    |
| Sleeping/head on desk         |
| Speaking Chinese              |
| Tardy/Unprepared              |

**<u>Rewards</u>**: This year we will have a "classroom store" available for you to purchase useful class items based on your positive ClassDojo points earned.

- ✓ 15 points 1 Homework Pass
  - o allows you a 1 day extension on a homework assignment
- ✓ 30 points 1 Quiz Pass
  - Replace lowest quiz score with a 75%
- ✓ 50 points 1 Test Pass
  - Add 10% to your lowest test grade (only those test grades below 65% are eligible)

You are allowed to bank points for the duration of the term. 10% of the points not used at the end of the term will be turned into extra credit towards your participation grade.

### Vocabulary:

An important part of this year's class will be to improve math vocabulary. Students will be given vocabulary quizzes/tests that will test their reading, writing, speaking, and listening comprehension.

### Writing:

About once a week students will complete a writing assignment that will demonstrate their writing skills, math vocabulary, and thought process in solving problems.

Students will also be turning in their notes. These notes might be graded on: completion, penmanship, organization, etc.

### Homework:

Students will be assigned homework daily. Homework will be "graded" on a scale of 0 - 2.

- 2 points full effort/attempt; assignment is roughly 75% or more complete
  - 1 point half effort/attempt; assignment is roughly 50% complete
  - 0 points no effort/attempt; assignment is less than 50% complete

**NO** late homework will be accepted.

### Quizzes:

Quizzes are given once a chapter to check for understanding of earlier topics. Some of the quiz problems will come from the daily homework assignments. There will be **no** re-take quizzes.

### Tests:

Tests are given at the end of each chapter of the book. Tests will be announced no less than 3 days in advance. There will be <u>no</u> re-take test opportunities. At the discretion of the teacher, students will have the opportunity to make test corrections, for at least half credit back on their test.

Rewards: Golden tickets will be awarded based on the following criteria

- ✓ 100% or better 3 golden tickets
- ✓ 95% or better 2 golden tickets
- ✓ 90% or better 1 golden ticket
- ✓ Class average of 85% or better each person in class WHO PASSES THE TEST will get 1 golden ticket

**NOTE:** You will be given a zero on a quiz/test if:

- 1. You are caught cheating (this includes copying answers or allowing others to copy from you)
- 2. You are caught talking, passing notes or otherwise communicating during a quiz/test, even if you have already finished.

**Extra Credit Opportunity:** Each term students will be given an opportunity for extra credit. The opportunity can come in the form of a research paper, project, etc. I will handout a guideline and rubric for the extra credit around the time of progress grades. The extra credit will be due approximately one week before the end of the term. In order for a student to earn the extra credit they **MUST NOT** have any late or missing work.

# "Office Hours":

I am available for help every morning from about 7:15 am until classes start at 8 am. There are some nights I will be around for study hall; however, it will probably only be about once every two weeks.

## More Specific Classroom Rules and Behavior:

- All ICA rules apply inside the classroom
- The following are some specific rules that are often a problem. This is not a complete list of classroom rules but an outline of a few specific expectations which tend to create the largest problems in class.
  - Do not speak while other are speaking
  - $\circ$   $\,$  Do not put your head on your desk at any time  $\,$
  - All students should be in their appropriate school uniform. Any students violating this policy will be sent directly to the dean of students.
  - Students should use the restroom before class! I understand emergencies happen and will be dealt with individually.
  - Cell Phones & MP3 Players school rules prohibit cell phones and electronic devices. The first time the device comes out (without me telling you to take it out) I will put it in a drawer in my desk for the remainder of the school day. If a student refuses and it becomes a larger issue they will be sent to the dean of students resulting in confiscation of the phone as outlined in the school's rules.
  - Speaking Chinese Simple, just don't. You are here to learn and improve your English skills, so use English. Excessive Chinese (or any other non-English language) will hurt your grade (in terms of your participation). This is your warning!

### **Cheating and Plagiarism:**

Students who are caught cheating on any assignment, quiz, or test will receive a zero for that assignment, quiz, or test. If the students turn in a written assignment that is word for word the same as another student, copying is assumed. While answers are often similar rarely do you say something with the exact words that someone else does.

### Course Topics:

- Graphing in the Coordinate Plane
- Functions and their graphs
  - Construction a graph from an equation
  - Analyzing graphs of different functions
  - Finding domain and range of a function
  - Finding inverse functions
- Logarithms
  - Using and solving logarithms
  - Exponential functions

- Trigonometry
  - Trigonometric functions and their graphs
  - Right triangle trigonometry
  - Inverse trigonometric functions
  - Solving trigonometric equations
  - Proving trigonometric identities
- Parametric Equations
- Polar Coordinates & Equations