

Algebra I

Instructor: 林子平 老师

Pre-requisites: Pre-Algebra

Students: 6-8 grade

Description

Algebra I makes up the Heart of Algebra in SAT Math. This course helps students to explore the tools of Algebra. Students will learn to comprehend fundamental Algebra Concepts such as Factoring Technique, Completing the Squares, Quadratic Equations, etc. and master the ability to solving problems using Logical Reasoning and Algebraic Skills.

林子平 老师就学于浙大求是小学，浙大附中，曾获杭州第一届数学竞赛一等奖。先后获浙江大学学士学位、上海交大硕士学位。在留学美国时期，曾就读于加州大学，U.C.Davis, 统计系, Ph.D. Program, 后获休斯敦大学工程硕士学位。1990起从事计算机软件开发工作，并热心投入初高中数学的教学辅导。

Contents

- Solving Linear Equations
- Functions and Patterns
- Analyzing Linear Equations
- Solving Systems of Linear Equations
- Solving Linear Inequalities
- Polynomials
- Factoring
- Quadratic and Exponential Functions
- Radical Expressions and Triangles
- Rational Expressions and Equations

Prepare for

CBE (Credit By Exam), Geometry, and Algebra II, SAT Math

Geometry

Instructor: 林子平 老师

Description

Pre-requisites: Algebra I

Students: 7-9 Grade

Geometry Concepts make up a significant part of SAT Math. This course helps students to recognize and work with geometric concepts. They will build on the ideas of inductive and deductive reasoning, postulates and theorems of Euclidean geometry. Students will use geometry software to aid visualizations, spatial reasoning, and geometric modeling to solve problems.

Prepare for

CBE (Credit By Exam), Algebra II, SAT Math

Under the influence from his father, who was a math professor of ZheJiang Univ., and many best educators from ZheJiang University and his high school (ZheJiang Univ. Affiliated High School), Mr. Lin had shown great interest in Math and won top award for the 1st Hangzhou Math Competition. Mr. Lin graduated from ZheJiang Univ. with a Bachelor degree of Arts and Shanghai JiaoTong Univ. with a Master degree of Science. He studied at the Univ. of California, Davis, Dept. of Statistics, in Ph.D. program. Mr. Lin graduated from the Univ. of Houston with a Master degree of Engineering. He had been a software developer for many years, working for Halliburton, Exxon, and BMC Software. Mr. Lin has been enjoying tutoring students in various areas ranging from Pre-Algebra, Algebra I, Geometry, Algebra II, and SAT to Calculus.

Contents

- Reasoning and Proof
- Parallel and Perpendicular Lines
- Congruent Triangles
- Relationships in Triangles
- Quadrilaterals
- Proportions and Similarity
- Right Triangles and Trigonometry
- Transformations
- Circles

Algebra II

Instructor: 林子平 老师

Pre-requisites: Algebra I, Geometry

Students: 8th - 10th grade

Description

Algebra II and Algebra I makeup Passport to Advanced Math in SAT Math. This course will progressively and systematically teach student some of the more difficult and advanced concepts in Algebra. The class will use algebra software to help student visualizing some of the concepts and building solid foundation for Pre-Calculus and eventually Calculus.



Contents

- Equations and Inequalities
- Linear Relations and Functions
- Systems of Equations and Inequalities
- Matrices
- Quadratic Functions and Inequalities
- Polynomial Functions
- Radical Equations and Inequalities
- Rational Expressions and Equations
- Exponential and Logarithmic Relations
- Conic Sections

Prepare for

CBE (Credit By Exam), Pre-Calculus, SAT Math

Pre-Calculus

Instructor: 林子平 老师

Pre-requisites	10 th -11 th grade Algebra II, Geometry
Prepare for	Calculus, SAT Subject Test in Mathematics Level 2

Description

Calculus developed by Isaac Newton and others has wide applications in Physics and other natural sciences, Engineering, and Economics. HuaXia Pre-Calculus is aimed to help student prepared for the All-Important Calculus. This course will progressively and systematically teach student some of the advanced concepts in Pre-Calculus and introduce Limits, Derivatives and Antiderivatives, and the Fundamental Theorem of Calculus.

Contents

- Linear Equations & Inequalities and Piecewise Functions
- Systems of Linear Equations & Inequalities and Matrices
- Families of Graphs – Symmetry, Continuity, and End Behavior
- Polynomial, Rational, and Radical Functions & Inequalities
- The Trigonometric and Periodic Functions
- Trigonometric Identities and Equations
- Vectors and Parametric Equations
- Polar Coordinates and Complex Numbers
- Introduction to Analytic Geometry and Conics
- Exponential and Logarithmic Relations
- Arithmetic, Geometry, and Special Sequences & Series
- Combinatorics, Statistics and Probability
- Limits, Derivatives, and Antiderivative, and the Fundamental Theorem of Calculus

Pre-Algebra

Instructor: 唐军平 博士

Target Students	6 th grade – 7 th grade
Pre-requisites	Have knowledge of concept and operations (addition, subtraction, multiplication, and division) of rational numbers (fraction, decimals, and percents). Have taken the 6 th grade math.

Description

This course is designed to improve and enhance students' ability of calculation involving power, radicals, exponents, and logarithm, and lay a solid foundation for the future study in algebra.

Dr. Tang has background in Physics, Biophysics. He obtained his Ph. D in engineering from UT Austin.

Course Syllabus

The following concepts and skills will be studied in this course:

Power: relationship between multiplication and power calculation, calculation of power form and governing rules, in case of same bases and different bases, and base converting. Concepts of zero power and negative power will be also introduced.

Radicals: introduction of root calculation and the concept of radicals; the useful skill of rationalizing denominator will be emphasized.

Exponents: introducing concept of exponent based power and radicals. Advanced skills for evaluating and simplifying expressions containing exponents will be introduced.

Logarithm: concept of logarithm, its relation with power and root will be clarified. Rules that governing log calculation will be explained. Common logarithm and natural logarithm will be introduced.

Middle School Math Competition Class

ABOUT THE CLASS Course mission: Middle School Math Competition Class provides engaging math programs to middle school students of all ability levels to build confidence and improve attitudes about math and problem solving.

ABOUT THE TEACHER

Mr. Baohong Wang

Wang has eight years of coaching experience in MATHCOUNTS and TMSCA/UIL. As a head coach of MATHCOUNTS, he led the Willow Wood Junior High School math team to participate in MATHCOUNTS State Competition three times. In the year 2019, the school team was honored

the sixth-placespot in the state competition. Now Mr. Wang continues to teach Math in HuaXia Chinese School for the third year with his coaching experience.

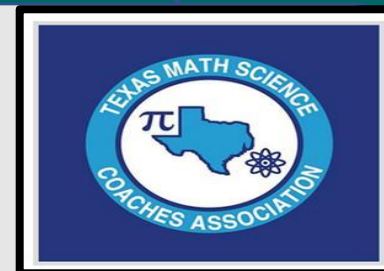


MATHCOUNTS



MATHCOUNTS is a national mathematics competition that builds problem solving skills. The students will be building their knowledge of Algebra, Geometry, and other subjects. Learning MATHCOUNTS will help apply the knowledge while developing problem solving skills.

TMSCA and UIL



TMSCA and **UIL** are similar as they cover many areas of middle school math. This includes Algebra, Geometry, Probability, and also number skills. The students will become faster at answering problems and find success in school competitions when they learn and practice.

**Middle School
Math
Competition
Class**

**Taught by
Mr. Baohong Wang**

Course Syllabus

In this class, we will learn, review and practice the following topics

1. Algebra
 - Linear Equations
 - System Equations
 - Quadratics
 - Statistics
2. Counting
 - Venn Diagram
 - Combinations and Permutations
 - Pascal Triangle
3. Probability
 - Probability Basics
4. Number Theory
 - Factors
 - Different Bases
5. Geometry
 - Geometry Basics
 - Circles
 - Pythagorean Theorem
 - Area
 - Three-Dimensional Geometry
 - Similarity
6. Trigonometry
 - Trigonometry Basics
7. Students will practice the following real contest problems
 - MATHCOUNTS/MATHLEAGUE
 - UIL/TMSCA Math
 - AMC 8

Middle School Math Competition Basics

Instructor: 俞新天

Students	6 th – 8 th grade
Pre-requisites	Pre-algebra
Prepare for	Mathleague, Mathcounts

Xintian Yu, a graduate from top Chinese university and a Ph.D. holder from top U.S. university, has strong scientific computing background and work experience in both academia and industry. He has coaching experience in various mathematical competitions including Mathcounts, UIL, AMC8/10, TMSCA, and Mathleague. He also had college teaching experience in the U.S.

Course Description

Contents	Fall semester: <ul style="list-style-type: none">• Algebra• Counting• Probability I
	Spring semester: <ul style="list-style-type: none">• Probability II• Geometry• Number theory

This course is based on the fun and enlightening Mathleague and Mathcounts (School level) programs. It is designed to get inexperienced middle school students started on math competition. The questions presented in the course are more challenging than those students would encounter in their school study. The students will learn mathematical knowledge and problem-solving skills that are usually not taught in the school. One year of middle school study or equivalent math knowledge is recommended to get most out of this course.

Middle School Math Competition Advanced - AMC 8

Instructor: 俞新天

Students	8 th – 10 th grade
Pre-requisites	Algebra & Geometry
Prepare for	Mathcounts, AMC 8/10

Contents :

Fall semester:

- Algebra advanced topics
- Counting advanced topics
- Probability advanced topics I

Spring semester:

- Probability advanced topics II
- Geometry advanced topics
- Number theory advanced topics

Description

This course is for students who have finished the Middle School Math Competition Basics course or for students at similar level. It is designed to prepare experienced math competition students for State and National level Mathcounts or AMC 8/10, two of the most premier US math competitions. More advanced topics will be discussed in the class and harder Mathcounts or AMC 8/10 problems will be presented to the students to solve. The students will learn advanced problem-solving skills and build positive attitudes towards analytical thinking.

A hand-drawn diagram on a grid background. It features a dashed parabola opening upwards. A horizontal line intersects the parabola at two points, marked with 'x'. Below the parabola, the quadratic formula is written:
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

SAT Math Prep / Saturday Class

Instructor: 俞新天

Students	8 th – 9 th grade (PSAT), 10 th – 11 th grade (SAT)
Pre-requisites	Algebra
Prepare for	PSAT, SAT

Description

This course is for students who will take SAT or PSAT in very near future. It will include a brief review of all the important topics in the test as well as the connections between these different topics. Through large amount of practice questions, students will learn and master problem-solving skills specific to the SAT test and gain confidence in test-taking. Students will also learn how to make personalized study plan and develop practical strategies to deal with challenging problems that could appear in the test.

Contents

- 1: Linear Equations
- 2: Systems of Linear Equations
- 3: Inequalities
- 4: Rates, Ratios, Proportions, and Percentages
- 5: Scatter Plots
- 6: Statistics and Probability
- 7: Exponents and Radicals
- 8: Polynomials and Rational Expression
- 9: Functions
- 10: Quadratic Equations
- 11: Imaginary Numbers
- 12: Geometry
- 13: Imaginary Numbers
- 14: Trigonometry

MISS
WALTER

About the teacher:
Miss Walter holds a degree in English Literature, Magna Cum Laude, from University of Houston, where she also taught freshman English. Born and raised in Houston, Texas, she is a teacher and private tutor with 10 years of experience.

**LITERARY ANALYSIS AND ESSAY
WRITING**

2:00 PM - 4:00 PM

(2-SEMESTER CLASS)

周
六

Have trouble finding deeper meanings in readings? This class will help you analyze, make connections, and put your thoughts into words using the style and structure your teachers expect in a good essay. If you want to make your teacher say "Wow!" about your essays, this class is for you. If you love analyzing, this class is for you, too!

Grades 8-10

课后班:
星期二,
6:00-
8:00pm

**Reading, Vocabulary and
Grammar Connection**

(2-semester class) Grades 8-10

9:00 AM -11:00 AM

Students will improve their vocabulary and grammar through reading lessons and discovering concept for themselves.

Students learn quickly when assignments are challenging, yet interesting enough to make the effort worthwhile! This is a great class for learning concepts needed to do well on the SAT and ACT! Students will also use their new skills to write an essay, and receive intensive instruction on their weaknesses in essay writing .

**Express Yourself!
Writing Class
11 AM – 1 PM
(1-semester class)**

This class is designed to get students more easily expressing their thoughts, opinions, and memories on paper. Let it flow! They will be able to use this ability on:

Personal narratives for STAAR exams

Integrating personal examples into expository essays

Application essays for educational camps like Duke TIP

Writing for personal expression, like poetry and creative writing

Grades 6-8

Timed Writing
11 AM - 12:30 PM

Sunday Classes

MISS
WALTER

2-semester class

In this class, students will learn to quickly and efficiently complete writing in a timed setting.

Topics include:

free write
descriptive
summary
character analysis
literary analysis
compare/contrast
persuasive
personal narrative
expository
and

STAAR, SAT and ACT essay prompts

Students and the teacher will share their completed essays with each other in order to learn and grow in confidence as they encounter different examples and ideas.

Grades 7-9



For Better Reading & Writing
12:30 - 2:00 PM
(one semester; spring repeats)

This class uses challenging yet interesting texts to inspire students' reading and as a model of what good writing looks like.

The result is better reading comprehension, an ignited interest in reading a variety of books, and more skillful and mature writing. If you want to "grow up" your reading and writing, this class is for you!

Grades 6-8

HIGH SCHOOL AP PHYSICS 1

Instructor: 曹娟娟 博士

Goal: The goal of this course is to study the core topics and concepts that are included in the college preparatory physics course in high school, will also cover the topics appearing on AP Physics Exam.

A Ph. D in Geophysics from University of Texas at Dallas. Juanjuan received Texas Standard Teacher Certificate in 7-12 Mathematics and Science from Texas Education Agency (TEA) in 2017. now she is teaching at a public high school in Houston independent school district.

Course Outline

1. Kinematics

Include constant velocity, constant acceleration, vectors, motion in one and two dimensions, projectile motion, and graphical analysis.

2. Dynamics

Include force, Newton's laws, static equilibrium, circular motion, centripetal force, rotation, universal gravitation, and simple harmonic motion.

3. Energy and momentum

Include potential energy, kinetic energy, work, power, impulse, momentum, Laws of energy conservation and momentum conservation, elastic and inelastic collision.

4. Waves

May include machnical wave, sound, wave speed, frequency, wavelength, amplitude, superposition, Doppler effect.

5. Electricity

Electrostatics: may include **Coulomb's law, induced charge, electric fields, electric potential, electric potential difference, and electric potential energy.**

Circuits: may include **series / parallel circuits, Ohm's law, and Joule's law.**

6. Electromagnetism (Introduction)

The course will focus on general strategies and problem solving skills, use relevant example questions to demonstrate the quick and effective ways for problem solving. Difficult concepts or topics will be emphasized, practices will be given during and after class to boost students' understanding and mastery.

SAT English Prep / Sunday Class

Instructor: Hunter Lee

Course Description: This class is to prepare the 9th-12th graders who wish to achieve a higher score in SAT. Through knowledge of the test format, knowledge of grammar conventions and knowledge of strategies to tackle the different kinds of questions, the students will increase test-taking confidence, make better answer choices and manage time better, leading to improved test scores.

As the seasoned SAT/ACT test-prep instructor and test-rehearsal orchestrator of past 20 more academic years, Mr. Hunter have served and contracted with Princeton Reviews at first, and later with HCC systems, UH systems, many ISDs as well for numerous sessions of SAT / ACT / GRE / GMAT / Pre-Calculus / AP-Calculus / AP-Physics / AP-Chemistry etc. all around Houston regions.

In brief overviews, the repertoires of Mr. Hunter's testing operations offer as follows: 1st, the regular SAT / ACT prep classes, 2nd, the emergency SAT / ACT pre-test trials, 3rd, enhanced SAT / ACT top-scoring classes, 4th, the make-up classes of SAT / ACT.

Well, in the academic field slates, Mr. Hunter has orchestrated more than 35,000 rounds of SAT sessions, 15,000 bounds of ACT test-preps, 8000 more of GRE rehearsals, approximated 5,000 of GMAT trials, as well as counterless coaching-classes of AP s and PreAP s.

We will be focused on the following topics:

1. Readings (Herodotus/ Pale blues/Milky's /Arias / Gold Apple/ Hypo' Oath/Cutting Edges)
2. Grammars {Tenses /Moods /Usages /Patterns /Idioms / Five Formats /Senses /Skills /jargon }
3. vocabulary (Roots/ Derivations / Rolled Patterns / Fangles / Diluvians / Scenarioed)
4. Bio-burners (Treatises / Oratories / Documentaries / refined stylistics / portrayals)
5. Logistics / Captures (Chimera's pens/ Hypnos' formats / Relativity's lens / Maxwell' spectra)

Sunday Class

高中化学 老师简历 课程简介

王勤老师现在我们学校教**AP**化学辅导班和化学**SAT**班的老师，她是一个拥有**20**多年教学经验的老师，她拥有德克萨斯州终身化学教师证书和硕士学位。在过去的**25**年中她在**Houston Community College**（休斯顿社区大学）教过大学化学，和在高中学过**AP**化学，荣誉高中化学和普通高中化学。她在**Harmony** 高中和**Cy-Fair ISD** 教过**20** 多年，在休斯顿社区大学教过**5**年。在**2014-2015**学年她的**AP**化学班的学生**100%**通过**AP**化学国家考试，之前她每年**AP**化学班的学生有**85%**左右的**AP**考试合格率，她的**AP**预科班和普通化学班的学生在学区的评估测试合格率每年始终在**85-90%**。我们学校很高兴能够请王勤老师到我们学校来教学。王勤老师现已退休，她除了在华夏教课外还给大学和高中的学生辅导化学，把化学知识传授给年轻一代。

AP Chemistry Exam Preparing Class

This class is to prepare students taking Advanced Placement Chemistry. Whether a student is taking AP Chemistry at his/her school or he/she is working on it independently, the stage is set for a great intellectual experience. This class is to help students try to master the AP Chemistry exam, put students on a fast track with focused review. This class will follow the College Board Concept Outline to help students practice difficult problems, diagnostic tests etc. that has all of the elements of the AP Chemistry Examination so that students can walk in with confidence and get best scores possible when they are taking exam. This class is a good supplement for AP chemistry students. Every class will review and discuss the theories and concepts, work on the challenge problems and leave some class time to answer students' school work that assigned in their AP chemistry class.

Pre-AP Chemistry Supplement class

Every high school student who wants to go college will take pre-AP chemistry. It is a require class. This supplemental class aligns with all public and private high schools' curriculum, and offers many effective strategies and suggestions for guiding students as they learn chemistry. The class provides opportunities through lectures, activities and discussions that allow students to further their understanding, and to discover critical concepts, and apply the knowledge they've gained to their school work and assessments. This class is intended for further assessments or student homework by practice additional problems. Many students would benefit from such further problem solving in order to reach full understanding of chapter material in their school chemistry textbook. Throughout this supplemental class, students are building problem solving and critical skills, and set a solid foundation that will be available to them for learning college chemistry and AP chemistry.

SAT Subject--Chemistry Class

The SAT subject-chemistry class is to prepare students to do well on this test. The subject test is prepared by the College Board and give evidence about your readiness in chemistry academic areas. Many colleges require or recommend one or more Subject Tests for admission or placement. This class will increase the understanding of chemistry subject, help students to practice problems and diagnostic tests, allow students becoming familiar with the question types and the wording of directions, and also to gain a feel for the degree of emphasis on main topics and the ways on tests, and to help students getting the best score possible. Once students obtain chemistry standardized assessment of your achievement from your good scores, some colleges use the test result for placement into their particular programs in the freshman year. This class is a good supplement for AP chemistry students and pre-AP chemistry students. For AP chemistry students it is a great review of pre-AP chemistry to set a strong foundation in AP chemistry course. For pre-AP chemistry students it is a class to expand and strengthen the knowledge learned in pre-AP chemistry to increase problem solving ability.

王黔江博士简介

休斯顿大学物理博士，从事计算机软件开发工作30多年，横跨如航天，物流，石油，保险，银行，航空等众多领域，熟悉软件发展的最新动态，对于Java, C# dotnet, Python, Angular, SQL server 数据库运用熟练。擅长网络应用软件的制作。特别是目前流行的MicroService，实体模拟编程，功能块导向编程，都有独到的见解。曾著有《Java实体模拟网络编程》一书，由中国人民邮电出版社出版发行。目前已经退休。

石油



保险



BANK



UNITED


航空

物流





华夏中文学校 实Python操网络软件课程




Python Web Application Programming is a one year program course designed to help students excel in AP Computer Science and also help adult student find related job and answer interview questions. Students will learn step by step how to write Python program, and how to build web application which connect to the database. We based on learn on demand concept, let student learn language basic while it is needed for the task. Require Laptop computer.

Python 1 - Semester 1:

1. Download and install all software needed for this class, such as Python package, VS code Editor and more...
2. An introduction to Python fundamentals. Topics include simple print statement, console usage, data type, , operators, conditional statements, loops, arrays, class and objects, string, and Java standard classes. Students
3. write simple game and build up function concept.
4. write python program to plot chart based math formular. and learn to build own package.

Python 2 - Semester 2:

1. Download and install NPM, MongoDB, Git software tools for building web application.
2. Topics include csv file handling, JSon format, Json to class. inheritance and polymorphism, array and array list, file O and exception, recursion, sorting and searching, and program design and analysis.
3. Learn MongoDB database collection and document concept, create Python program to Create, Read, Update and Delete (CRUD) data record in DB.
4. Create Python Server to connect to MongoDB, and create DB service for CRUD.
5. Display data from Database to web browser.
6. Use React JS generate simple GUI to display database data.



儿童课程偏重打好语言基础；成人课程则偏重建立网络编程理念，编写网络应用软件，解答面试问题。

华夏中文学校Java实操软件编程课程

Java Programming is a two-sessions computer programming course in English, designed to help students excel in AP Computer Science. No prereqs for student. Students will learn step by step how to install tools and how to write Java program, include sample games, plot chart, database access, and simple web application. Student will learn language basic such as loop, condition, data type while they are learning build application. Since it is a on-line class, need laptop computer, better has additional monitor.

Java-1:

1. Download and install all software needed for this class, such as Java JDK, Eclipse, Git ...
2. An introduction to Java fundamentals, Topics include simple print statement, data type, operators, conditional statement, loops, array, ArrayList, String...
3. Build up OOP concept, introduce, class, interface, abstract class concept
4. Build Card game based on Java classes.

Java-2:

1. Learn Relational database access by using mySQL, and hibernate.
2. Handle Exception, write unit test, debugging, logging.
3. Learn frequently used design pattern, such as observer, command, factory, singleton...
4. Introduce ReactiveX, functional programing include map, filter, reduce, zip, soft, and more.