MATH

Revised August 14, 2019

SYLLABUS ——— Statistics AP
Science Academy of South Texas

Instructor: Mrs. D. Carapia
Conference Period: 2A and 3B
Email: dafne.carapia@stisd.net
Telephone Number: (956) 565-4620

Textbooks:

Bock, David, Velleman, Paul, De Veaux, Richard Stats Modeling the World, 4th edition (AP edition)
Larson, Ronald , Farber, Betsy. Elementary Statistics: Picturing the World. 4th edition

Course Description:

AP Statistics is designed to be a course about the practice of modern statistics. This course is primarily concerned with acquainting students with the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Ideas and computations presented in this course have immediate links and connections with actual events. Computers and calculators will allow students to focus deeply on the concepts involved in statistics. This course prepares students for the Advanced Placement examination in Statistics.

Course Learning Outcomes:

Upon successful completion of this course, students should be able to:
1. Explain the use of data collection and statistical tools to reach reasonable conclusions.
2. Recognize, examine and interpret the basic principles of describing and presenting data.
3. Compute and interpret empirical and theoretical probabilities using the rules of probabilities and combinatorics.
4. Explain the role of probability in statistics.
5. Examine, analyze and compare various sampling distributions for both discrete and continuous random variables.
6. Describe and compute confidence intervals.
7. Solve linear regression and correlation problems.
8. Perform hypothesis testing using statistical methods

Supplies needed:

binder; spiral or composition notebook; loose-leaf paper, #2 pencils; a graphing calculator (TI-NSpire CX/CAS or TI-84)

Rules and regulations:
The student will be expected to:
1. Comply with all rules and regulations as stated in the current student handbook.
2. Be in regular attendance; be prompt to and prepared for class.
3. Behave in a courteous and polite manner.
4. No food or drinks is allowed in the classroom during class time. (Only bottled water will be allowed.)
5. Follow all directions as given by the teacher.

Cheating and/or violations to testing guidelines will not be tolerated and will result in a referral to administration, a parent contact by phone or email and a grade of zero for that assignment.

Tutorial:

The Tutorial Period preceding each day's instruction (M-F 8:30-8:53) and afternoon tutorials (T & Th 4:15-5:15) will be used for remediation. Any student with a failing progress report or 9-week grade is encouraged to attend tutorials. Tutorial time may also be used for make-ups and re-tests. Every other Friday our department will participate in a collaboration meeting, therefore morning tutorials will not be available on those days.

Revised August 14, 2019

Grading system: As per school policy, the following evaluation procedure shall apply –

Per Quarter

Tests:	50%
Quizzes/Projects:	30%
Daily work	20%
(Non-formative Classwork, Homework, etc.)	

Per Semester

First Quarter grade of the Semester:	37.5%
Second Quarter grade of the Semester:	37.5%
A Comprehensive Semester Exam:	25.0%

Formative Assessments

Informal formative assessments will be conducted daily (examples: problem of the day, short quizzes, or general class discussions). Two common formal formative assessments will be administered per semester.

Make-up work:

If you are absent, you are responsible for getting the notes and learning the sections covered by attending tutorials and checking with the teacher to make up any missing assignments. Extended absences will follow district policy for makeup work. Make-up Tests must be completed during after school tutorial within two tutorial days.

Daily work/Homework:

MyMathLab assignments are designed to build on concepts learned in class and prepare students for upcoming quizzes and/or tests. Problems completed after the due date, but no more than one class period after the due date, will receive a 30% penalty.

Projects: Projects will receive the same weight as a quiz.

Re-testing:

Only one re-test shall be administered to replace a failing "test" grade (below 70%). At the instructor's discretion, remedial/supplemental work may be required as pre-requisite for re-testing. The highest grade allowed on a re-test is a 70. Re-testing must be completed within two weeks from the day the graded work being re-tested is handed back.
Semester Exam grades may not be re-tested.

Note:
Mathematics takes time to master. Please dedicate sufficient time a week in addition to class time to the study of mathematics. Without this investment of your time, you will find this class to be more frustrating than it should be.

D. Carapia, Teacher

8/15/19
I. Castillo, Principal

Student Printed Name

Parent/Guardian Printed Name

Student Signature

Parent/Guardian Signature

Revised August 14, 2019

Topic Outline

Following is an outline of the major topics covered by the AP Statistics Exam. The ordering here is intended to define the scope of the course but not necessarily the sequence. The percentages in parentheses for each content area indicate the coverage for that content area in the exam.

I. Exploring Data: Describing patterns and departures from patterns (20%–30%)
Exploratory analysis of data makes use of graphical and numerical techniques to study patterns and departures from patterns. Emphasis should be placed on interpreting information from graphical and numerical displays and summaries.

A. Constructing and interpreting graphical displays of distributions of univariate data (dotplot, stemplot, histogram, cumulative frequency plot)
1. Center and spread
2. Clusters and gaps
3. Outliers and other unusual features
4. Shape

B. Summarizing distributions of univariate data

1. Measuring center: median, mean
2. Measuring spread: range, interquartile range, standard deviation
3. Measuring position: quartiles, percentiles, standardized scores (z-scores)
4. Using boxplots
5. The effect of changing units on summary measures

C. Comparing distributions of univariate data (dotplots, back-to-back stemplots, parallel boxplots)

1. Comparing center and spread: within group, between group variation
2. Comparing clusters and gaps
3. Comparing outliers and other unusual features
4. Comparing shapes

D. Exploring bivariate data

1. Analyzing patterns in scatterplots
2. Correlation and linearity
3. Least-squares regression line
4. Residual plots, outliers and influential points
5. Transformations to achieve linearity: logarithmic and power transformations

E. Exploring categorical data

1. Frequency tables and bar charts
2. Marginal and joint frequencies for two-way tables
3. Conditional relative frequencies and association
4. Comparing distributions using bar charts

II. Sampling and Experimentation: Planning and conducting a study (10%–15%)
Data must be collected according to a well-developed plan if valid information on a conjecture is to be obtained. This plan includes clarifying the question and deciding upon a method of data collection and analysis.

A. Overview of methods of data collection

1. Census
2. Sample survey
3. Experiment
4. Observational study

B. Planning and conducting surveys

1. Characteristics of a well-designed and well-conducted survey
2. Populations, samples and random selection
3. Sources of bias in sampling and surveys
4. Sampling methods, including simple random sampling, stratified random sampling and cluster sampling

C. Planning and conducting experiments

1. Characteristics of a well-designed and well-conducted experiment

2. Treatments, control groups, experimental units, random assignments and replication
3. Sources of bias and confounding, including placebo effect and blinding
4. Completely randomized design
5. Randomized block design, including matched pairs design

D. Generalizability of results and types of conclusions that can be drawn from observational studies, experiments and surveys

III. Anticipating Patterns: Exploring random phenomena using probability and simulation (20%–30%)
Probability is the tool used for anticipating what the distribution of data should look like under a given model.

A. Probability

1. Interpreting probability, including long-run relative frequency interpretation
2. "Law of Large Numbers" concept
3. Addition rule, multiplication rule, conditional probability and independence
4. Discrete random variables and their probability distributions, including binomial and geometric
5. Simulation of random behavior and probability distributions
6. Mean (expected value) and standard deviation of a random variable, and linear transformation of a random variable

B. Combining independent random variables

1. Notion of independence versus dependence
2. Mean and standard deviation for sums and differences of independent random variables

C. The normal distribution

1. Properties of the normal distribution
2. Using tables of the normal distribution
3. The normal distribution as a model for measurements

D. Sampling distributions

1. Sampling distribution of a sample proportion
2. Sampling distribution of a sample mean
3. Central Limit Theorem
4. Sampling distribution of a difference between two independent sample proportions
5. Sampling distribution of a difference between two independent sample means
6. Simulation of sampling distributions
7. t-distribution
8. Chi-square distribution

IV. Statistical Inference: Estimating population parameters and testing hypotheses (30%–40%)
Statistical inference guides the selection of appropriate models.

A. Estimation (point estimators and confidence intervals)

1. Estimating population parameters and margins of error
2. Properties of point estimators, including unbiasedness and variability
3. Logic of confidence intervals, meaning of confidence level and confidence intervals, and properties of confidence intervals
4. Large sample confidence interval for a proportion
5. Large sample confidence interval for a difference between two proportions
6. Confidence interval for a mean
7. Confidence interval for a difference between two means (unpaired and paired)
8. Confidence interval for the slope of a least-squares regression line

B. Tests of significance

1. Logic of significance testing, null and alternative hypotheses; p-values; one- and two-sided tests; concepts of Type I and Type II errors; concept of power
2. Large sample test for a proportion
3. Large sample test for a difference between two proportions
4. Test for a mean
5. Test for a difference between two means (unpaired and paired)
6. Chi-square test for goodness of fit, homogeneity of proportions, and independence (one- and two-way tables)
7. Test for the slope of a least-squares regression line

Revised August 14, 2019

SYLLABUS ------ Pre-Calculus Honors
Science Academy of South Texas

Instructor: Mrs. D. Carapia
Conference Period: 2A and 3B
Email: dafne.carapia@stisd.net
Telephone Number: (956) 565-4620

Textbooks:
Pre-Calculus McGraw Hill

Course Description:

This course is the combined study of algebra, trigonometry and other topics needed to prepare students for the study of calculus. Topics include trigonometric functions, inverses, graphs, and identities; vectors; polar and parametric equations; conic sections; sequences and series and may include additional topics such as: mathematical induction and/or probability.

Supplies needed:
spiral or composition notebook; loose-leaf paper, #2 pencils; a graphing calculator (TI-NSpire CX or TI-84)

Rules and regulations:
The student will be expected to:

1. Comply with all rules and regulations as stated in the current student handbook.
2. Be in regular attendance; be prompt to and prepared for class.
3. Behave in a courteous and polite manner.
4. No food or drinks is allowed in the classroom during class time. (Only bottled water will be allowed.)
5. Follow all directions as given by the teacher.

Cheating and/or violations to testing guidelines will not be tolerated and will result in a referral to administration, a parent contact by phone or email and a grade of zero for that assignment.

Tutorial:

The Tutorial Period preceding each day's instruction (M-F 8:30-8:53) and afternoon tutorials (T & Th 4:15-5:15) will be used for remediation. Any student with a failing progress report or 9-week grade is encouraged to attend tutorials. Tutorial time may also be used for make-ups and re-tests. Every other Friday our department will participate in a collaboration meeting, therefore morning tutorials will not be available on those days.

Grading system: As per school policy and agreed upon by the teachers of Pre-Calculus, AP Calculus, and AP Statistics, the following evaluation procedure shall apply --

Per Quarter		**Per Semester**	
Tests:	50%	First Quarter grade of the Semester:	37.5%
Quizzes/Projects:	30%	Second Quarter grade of the Semester:	37.5%
Daily work (Non-formative Classwork, Homework, etc.)	20%	A Comprehensive Semester Exam:	25.0%

Revised August 14, 2019

Formative Assessments

Informal formative assessments will be conducted daily (examples: Do Now's, short quizzes, or general class discussions). Two common formal formative assessments will be administered per semester.

Make-up work:

If you are absent, you are responsible for getting the notes and learning the sections covered by attending tutorials and checking with the teacher to make up any missing assignments. Extended absences will follow district policy for makeup work. Make-up Tests must be completed during after school tutorial within two tutorial days.

Daily work/Homework:

Homework assignments are designed to build on concepts learned in class and prepare students for upcoming quizzes and/or tests. When solutions are available in the textbook, the student is responsible for checking if their final answer is correct, but they must show all their work in order to receive full credit for the problem. Questions about the work will be answered during morning and afternoon tutorials. Homework must be original and hand written, when it is not an electronic assignment. Problems completed after the due date, but no more than one class period after the due date, will receive a 30% penalty.

Projects:

Projects will receive the same weight as a quiz.

Re-testing:

Only one re-test shall be administered to replace a failing "test" grade (below 70%). At the instructor's discretion, remedial/supplemental work may be required as pre-requisite for re-testing. The highest grade allowed on a re-test is a 70. Re-testing must be completed within two weeks from the day the graded work being re-tested is handed back.

Semester Exam grades may not be re-tested.

Note:
Mathematics takes time to master. Please dedicate sufficient time a week in addition to class time to the study of mathematics. Without this investment of your time, you will find this class to be more frustrating than it should be.

D. Carapia, Teacher

8/15/19
I. Castillo, Principal

Student Printed Name

Parent/Guardian Printed Name

Student Signature

Parent/Guardian Signature

SYLLABUS ------- Algebra II (Honors)

Instructor: Mr. J. Cuellar
Conference Period: A/B - 4th/3rd
Telephone Number: (956) 565-4620
Email: jose.cuellar@stisd.net

Course Description

Algebra II covers the review of basic algebra expressions, equations, functions, linear equations, linear functions, systems of linear equations and inequalities, exponents and exponential functions, quadratic expressions and equations, polynomial functions, radical functions, and rational functions and rational equations.

First Semester Major Topics	Second Semester Major Topics
Expressions, Equations, and Functions	Systems of Linear Equations and Inequalities
Linear Equations	Exponents and Exponential Functions
Linear Functions	Quadratic Expressions
Equations of Linear Functions	Quadratic Equations
Linear Inequalities	Radical Functions and Equations
Graphing Inequalities	Rational Functions
Quadratic Functions	Rational Equations

Supplies needed: 3-ring binder; loose-leaf paper or spiral notebook, Composition Notebook: #2 pencil (mechanical is recommended); a graphing, scientific calculator (TI-84 Plus Silver Edition, or equivalent) is strongly recommended for use in this and subsequent mathematics courses as well as in various science and technology classes.

Rules and regulations: The student will be expected to:

1. Comply with all rules and regulations as stated in the current student handbook.
2. Be in regular attendance; be prompt to and prepared for class.
3. Behave in a courteous and polite manner.
4. No electronic devices will be allowed unless it is needed for the current lesson. If it is visible to me, or if I suspect its use in class, the student will be required to turn it over to me immediately.
5. No food or drink is allowed in the classroom during class time.
6. Follow all directions as given by the instructor.

Formative Assessment: Throughout Algebra II Pre-AP, a variety of assessments will be utilized. These assessments range from oral discussion, surveys, guided practice, class assignments, and quizzes. These types of assessments will help influence and shape the process of learning before a test is given.

Grading system: As per school policy, the following evaluation procedure shall apply :

Per Nine-Week:

Daily evaluation or homework	20%
Quizzes	30%
Tests	50%

Per Semester:

Each of the 2 nine-weeks' grades shall comprise 37.5% of the semester grade for a total of 75%. A comprehensive, semester exam shall comprise the remaining 25%.

Daily Work:

Class work: Class work consists of any activities done during the class period that are selected for grading.

Assignments: Assignments are due at the beginning of the next class period. Please make sure the assignments are clearly labeled or no credit will be earned. **IF I CAN'T FIND THE PROBLEMS, I CAN'T CHECK THEM!** Assignments will be graded on completion. All work must be shown to get full credit for each graded problem.

Quizzes:

Quizzes will cover 3 to 5 sections each.

Tests:

Tests are chapter/unit tests. The test grade may replace quiz grades (score must be 60 or higher) for that chapter/unit. If quiz score is lower than 60, highest replacement score is 75. Chapter/unit tests with a score below a 75 may be retested within the given time period as determined by the teacher. The highest score that can be received on a retest is a 75.

***Nine-weeks exams and semester exams cannot be retested.**

Make-up work:

If you are absent, <u>you</u> are responsible for getting the notes from another classmate. Assignments will be posted in the classroom. Due to block scheduling, most of you will have the opportunity to come and find me before returning to class. Extended absences will follow district policy for makeup work.

Late Work:

Assignments for a specific chapter can be turned in late until the day of the chapter test. They will not be accepted for credit after the day of the chapter test. A penalty of 5 points per class day will be imposed for any late work.

J. Cuellar, Teacher

8/14/19

Dr. I. Castillo, Principal

Revised August 11, 2019

SYLLABUS ------- Calculus I CP
Science Academy of South Texas

Instructor: Mr. J. Cuellar
Conference Period: 4A and 3B
Email: jose.cuellar@stisd.net
Telephone Number: (956) 565-4620

Textbook: Calculus of a Single Variable 8th Ed. by Larson, Hostetler, and Edwards

Course Overview:

AP Calculus AB is primarily concerned with developing the students understanding of the concepts of calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally, and the connections among these representations. Course study will include properties of functions, limits, differential calculus, and integral calculus. Use of symbolic differentiation and integration utilities is also included.

Goals & Objectives

- To prepare students for college level mathematics courses
- To relate and apply concepts in calculus to other subject areas and to real world problems
- To develop in each student an interest in and appreciation for mathematical concepts, methods and history

Calculus CP Course Goals :

By the end of the course you should be able to:

- Work with functions represented in a variety of ways: graphical, numerical, analytical, or verbal. You should understand the connections among these representations.
- Understand the meaning of the derivative in terms of a rate of change and local linear approximation and use derivatives to solve a variety of problems.
- Understand the meaning of the definite integral both as a limit of Riemann sums and as the net accumulation of change and use integrals to solve a variety of problems.
- Understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.
- Communicate mathematics both orally and in well-written sentences and explain solutions to problems.
- Model a written description of a physical situation with a function, a differential equation, or an integral.
- Use technology to help solve problems, experiment, interpret results, and verify conclusions.
- Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.
- Develop an appreciation of calculus as a coherent body of knowledge and as a human accomplishment.

Supplies needed:

Binder or folder to keep class work together; loose-leaf paper, one composition notebook for class note; #2 pencil; a graphing calculator (TI-NSpire CX CAS or TI 84+) is strongly recommended to be used in class.

Rules and regulations:

The student will be expected to:

1. Comply with all rules and regulations as stated in the current student handbook.
2. Be in regular attendance; be prompt to and prepared for class.
3. Behave in a courteous and polite manner.
4. No food or drink is allowed in the classroom during class time. (Only bottled water will be allowed.)
5. Follow all directions as given by the teacher.

Cheating and/or violations to testing guidelines will result in a referral to administration, a parent contact by phone or email, and a grade of zero for that assignment will be recorded.

JC

Revised August 11, 2019

Tutorial:

The Tutorial Period preceding each day's instruction (M-F 8:30-8:53) and afternoon tutorials (T & Th 4:15-5:15) will be used for make-up, remedial, or supplemental work as assigned by the instructor. Any student with a failing progress report grade average will be assigned remedial or supplemental work to be completed during this time. Every other Friday our department will participate in a collaboration meeting, therefore morning tutorials will not be available on those days.

Grading system: As per school policy, the following evaluation procedure shall apply --

Per Quarter		Per Semester:	
Homework/Daily Work:	20%	First Quarter's grade of the Semester:	37.5%
Quizzes:	30%	Second Quarter's grade of the Semester:	37.5%
Tests/Projects:	50%	A Comprehensive Semester Exam:	25.0%

Projects:

Major projects, if needed at teacher's discretion, will count as tests.

Formative Assessments

The purpose for formative assessments is to gather information about students' progress and learning needs and use this information to make instructional adjustments. Informal formative assessments will be conducted daily (examples: problem of the day, short quizzes, or general class discussions).

Make-up work:

If you are absent, you are responsible for learning the sections covered by attending tutorials and checking with the teacher to make-up any missing work during tutorials. Make-up Tests must be completed during after school tutorials within two tutorial days.

Homework:

Homework assignments are designed to build on concepts learned in class and prepare students for upcoming quizzes and/or tests. Questions about the work will be answered during morning and afternoon tutorials. Homework must be original and hand written, when it is not an electronic assignment.

Late Work: Assignments for a specific chapter can be turned in late until the day of the chapter test. They will not be accepted for credit after the day of the chapter test. A penalty of 5 points per class day will be imposed for any late work.

The "Semester Exam" grade may **not** be re-tested.

J. Cuellar, Teacher

8/19/19

I. Castillo, Principal

Student Printed Name

Parent/Guardian Printed Name

Student Signature

Parent/Guardian Signature

Revised August 14, 2019

SYLLABUS ------ Calculus I AP / Dual Enrollment
Science Academy of South Texas

Instructor: Ms. Haixin Guo
Conference Period: 4A and 4B
Email: haixin.guo@stisd.net
Telephone Number: (956) 565-4620
Textbook: Calculus of a Single Variable 8th Ed. by Larson, Hostetler, and Edwards

Course Overview:

AP Calculus AB is primarily concerned with developing the students understanding of the concepts of calculus and providing experience with its methods and applications. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally, and the connections among these representations. Course study will include properties of functions, limits, differential calculus, and integral calculus. Use of symbolic differentiation and integration utilities is also included.
The advanced placement course in AB calculus is intended to be an introductory college level calculus course. Students are introduced to the concepts and applications in three major topic areas:

- Functions, graphs and limits
- Derivatives
- Integrals

Goals & Objectives

- To cover calculus as outlined in the Advanced Placement AB calculus syllabus
- To prepare students for the AP Calculus AB examination
- To prepare students for college level mathematics courses
- To relate and apply concepts in calculus to other subject areas and to real world problems
- To develop in each student an interest in and appreciation for mathematical concepts, methods and history

College Board AP Calculus Course Goals :

By the end of the course you should be able to:

- Work with functions represented in a variety of ways: graphical, numerical, analytical, or verbal. You should understand the connections among these representations.
- Understand the meaning of the derivative in terms of a rate of change and local linear approximation and use derivatives to solve a variety of problems.
- Understand the meaning of the definite integral both as a limit of Riemann sums and as the net accumulation of change and use integrals to solve a variety of problems.
- Understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.
- Communicate mathematics both orally and in well-written sentences and explain solutions to problems.
- Model a written description of a physical situation with a function, a differential equation, or an integral.
- Use technology to help solve problems, experiment, interpret results, and verify conclusions.
- Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.
- Develop an appreciation of calculus as a coherent body of knowledge and as a human accomplishment.

Supplies needed:

Binder or folder to keep class work together; loose-leaf paper, one composition notebook for class note; #2 pencil; a graphing calculator (TI-NSpire CX CAS or TI 84+) is strongly recommended to be used in class.

Rules and regulations:

The student will be expected to:

1. Comply with all rules and regulations as stated in the current student handbook.
2. Be in regular attendance; be prompt to and prepared for class.
3. Behave in a courteous and polite manner.
4. No food or drink is allowed in the classroom during class time. (Only bottled water will be allowed.)
5. Follow all directions as given by the teacher.

Cheating and/or violations to testing guidelines will result in a referral to administration, a parent contact by phone or email, and a grade of zero for that assignment will be recorded.

Revised August 14, 2019

Tutorial:

The Tutorial Period preceding each day's instruction (M-F 8:30-8:53) and afternoon tutorials (T & Th 4:15-5:15) will be used for make-up, remedial, or supplemental work as assigned by the instructor. Any student with a failing progress report grade average will be assigned remedial or supplemental work to be completed during this time. Every other Friday our department will participate in a collaboration meeting, therefore morning tutorials will not be available on those days.

Grading system: As per school policy, the following evaluation procedure shall apply --

Per Quarter		Per Semester:	
Homework/Daily Work:	20%	First Quarter's grade of the Semester:	37.5%
Quizzes:	30%	Second Quarter's grade of the Semester:	37.5%
Tests/Projects:	50%	A Comprehensive Semester Exam:	25.0%

Projects:

Major projects, if needed at teacher's discretion, will count as tests.

Formative Assessments

The purpose for formative assessments is to gather information about students' progress and learning needs and use this information to make instructional adjustments. Informal formative assessments will be conducted daily (examples: problem of the day, short quizzes, or general class discussions). Two common formal formative assessments will be administered per semester.

Make-up work:

If you are absent, you are responsible for learning the sections covered by attending tutorials and checking with the teacher to make-up any missing work during tutorials. Make-up Tests must be completed during after school tutorials within two tutorial days.

Homework:

Homework assignments are designed to build on concepts learned in class and prepare students for upcoming quizzes and/or tests. Each grade will consist of two or three consecutive homework assignments. When solutions are available in the textbook, the student is responsible for checking if their final answer is correct. Questions about the work will be answered during morning and afternoon tutorials. No late work will be accepted after due date. Homework must be original and hand written, when it is not an electronic assignment.

The "Semester Exam" grade may **not** be re-tested.

H. Guo, Teacher

8/14/19

L. Madrigal, Assistant Principal

Student Printed Name

Parent/Guardian Printed Name

Student Signature

Parent/Guardian Signature

Revised August 14, 2019

SYLLABUS ------- AP Calculus II / Dual Enrollment
Science Academy of South Texas

Instructor: Ms. Haixin Guo
Conference Period: 4A and 4B
Email: haixin.guo@stisd.net
Telephone Number: (956) 565-4620

Textbook:

Thomas' Calculus 11th Ed. by Weir, Hass, and Giordano

Course Description:

AP Calculus BC is primarily concerned with developing the students understanding of the concepts of calculus and providing experience with its methods and applications. It takes a students' prior knowledge and begins to make connections. The course will emphasize a multi-representational approach to calculus, with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally, and the connections among these representations. Course study will include properties of functions, limits, differential calculus, integral calculus, polynomial approximations and series. The use of graphing calculators will also be used on a regular basis.

Goals & Objectives

- To cover the objective for calculus as outlined in the advanced placement BC calculus syllabus
- To prepare students for the Calculus BC examination
- To prepare students for college level mathematics courses
- To relate and apply concepts in calculus to other subject areas and to real world problems
- To develop in each student an interest in and appreciation for mathematical concepts, methods and history

College Board AP Calculus Course Goals :

By the end of the course you should be able to:

- Work with functions represented in a variety of ways: graphical, numerical, analytical, or verbal. You should understand the connections among these representations.
- Understand the meaning of the derivative in terms of a rate of change and local linear approximation and be able to use derivatives to solve a variety of problems.
- Understand the meaning of the definite integral both as a limit of Riemann sums and as the net accumulation of change and use integrals to solve a variety of problems.
- Understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.
- Communicate mathematics both orally and in well-written sentences and explain solutions to problems.
- Model a written description of a physical situation with a function, a differential equation, or an integral.
- Use technology to help solve problems, experiment, interpret results, and verify conclusions.
- Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.
- Develop an appreciation of calculus as a coherent body of knowledge and as a human accomplishment.

Supplies needed:

Binder or folder to keep class work together; loose-leaf paper, one composition notebook; #2 pencil or mechanical pencil; a graphing calculator (TI-NSpire CX CAS or TI 84+) is strongly recommended to be used in class.

Rules and regulations:

The student will be expected to:

1. Comply with all rules and regulations as stated in the current student handbook.
2. Be in regular attendance; be prompt to and prepared for class.
3. Behave in a courteous and polite manner.
4. No food or drink is allowed in the classroom during class time.
5. Follow all directions as given by the teacher.

Violations to testing guidelines will result in a referral to administration, a parent contact by phone or email, and a grade of zero for that assignment will be recorded.

Revised August 14, 2019

Tutorial:

The Tutorial Period preceding each day's instruction (M-F 8:30-8:53) and afternoon tutorials (T & Th 4:15-5:15) will be used for make-up, remedial, or supplemental work as assigned by the instructor. Any student with a failing progress report grade average will be assigned remedial or supplemental work to be completed during this time.

Grading system: As per school policy, the following evaluation procedure shall apply --

Per Nine-Week		Per Semester:	
Homework:	20%	First 9-week's grade of the Semester:	37.5%
Quizzes:	30%	Second 9-week's grade of the Semester:	37.5%
Tests/Projects:	50%	A Comprehensive Semester Exam:	25.0%

Projects:

Major projects, if needed at teacher's discretion, will count as tests.

Formative Assessments

The purpose for formative assessments is to gather information about students' progress and learning needs and use this information to make instructional adjustments. Informal formative assessments will be conducted daily (examples: problem of the day, short quizzes, or general class discussions). Two common formative assessments will be administered per semester.

Make-up work:

If you are absent, you are responsible for learning the sections covered by attending tutorials and checking with the teacher to make-up any missing work during tutorials. Make-up Tests must be completed during after school tutorials within two tutorial days.

Homework:

Homework assignments are designed to build on concepts learned in class and prepare students for upcoming quizzes and/or tests. Each grade will consist of two or three consecutive homework assignments. When solutions are available in the textbook, the student is responsible for checking if their final answer is correct. Questions about the work will be answered during morning and afternoon tutorials. No late work will be accepted after due date. Homework must be original and hand written, when it is not an electronic assignment.

The "Semester Exam" grade may **not** be re-tested.

H. Guo, Teacher

8/14/19

L. Madrigal, Assistant Principal

Student Printed Name

Parent/Guardian Printed Name

Student Signature

Parent/Guardian Signature

Kelly Houlihan Leonard
Room 203
School number: 956-565-4620

Preferred Contact: HoulihanLeonard@gmail.com or
Kelly.Leonard@stisd.net
Conference Periods: 2A, 4B

Advanced Quantitative Reasoning (AQR) Course Summary

Purpose and Objectives: As stated in the Texas Essential Knowledge and Skills for Mathematics for **Advanced Quantitative Reasoning**:

In Advanced Quantitative Reasoning, students will develop and apply skills necessary for college, careers, and life. Course content consists primarily of applications of high school mathematics concepts to prepare students to become well-educated and highly informed 21st century citizens. Students will develop and apply reasoning, planning, and communication to make decisions and solve problems in applied situations involving numerical reasoning, probability, statistical analysis, finance, mathematical selection, and modeling with algebra, geometry, trigonometry, and discrete mathematics.

The TEKS can be found in detail on the Texas Education Agency website.

http://ritter.tea.state.tx.us/rules/tac/chapter111/ch111c.html#111.44

Formative Assessments: Following is an excerpt from the book Transformative Assessment *by W. James Popham* that is useful in gaining an understanding of "formative assessments":

> "After considering a variety of earlier definitions, and after numerous foreseeable rounds of participants' wordsmithing, the FAST SCASS group adopted the following definition:
>
> Formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcomes.
>
> Let's look at the key features of the FAST SCASS definition:
>
> - Formative assessment is a *process*, not any particular test.
> - It is used not just by teachers but by *both teachers and students*.
> - Formative assessment takes place *during instruction*.
> - It provides *assessment-based feedback* to teachers and students.
> - The function of this feedback is to help teachers and students make *adjustments* that will improve students' achievement of intended curricular aims."

Grading:

**Per Nine Weeks*:* Guided/Independent Practice: 50%, Assessments 50%

Projects: Projects may be assigned. They will either be completed as group work or independent work. Students will be notified in advance of each project as to whether it will be graded as an assignment or an assessment.

Guided/Independent Practice:

Class work: Class work consists of any activities done during the class period that are selected for grading.

Assignments: Please make sure the assignments are clearly labeled or no credit will be earned. IF I CAN'T FIND THE PROBLEMS, I CAN'T CHECK THEM!

LATE WORK: Late assignments have a 5 point per day late penalty (not including weekends/holidays).

Assessments: Assessments include but are not limited to quizzes and/or tests. Retesting will be allowed only on exams and only for exams with a score below 75% if done within the given time period as determined by the teacher (usually one week after the exam is returned to the student). Highest score on a retest is 75%. *Nine-weeks exams and semester exams cannot be retested.

Per Semester: Each of the two nine-week grades shall comprise 37.5% of the semester grade. A comprehensive semester/final exam shall comprise the remaining 25%.

BEEs… BE prompt, BE polite, BE prepared, BE productive

"Whether you think you can, or you think you can't--you're right." Henry Ford

K Leonard

K. Leonard, AQR teacher

8/13/19

I. Castillo, Principal

Kelly Houlihan Leonard
Room 203
School number: 956-565-4620

Preferred Contact: HoulihanLeonard@gmail.com or
Kelly.Leonard@stisd.net
Conference Periods: 2A, 4B

https://sites.google.com/site/houlihanleonard/

Geometry Course Summary

Purpose and Objectives: As stated in the Texas Essential Knowledge and Skills for Mathematics for **Geometry**:

In Geometry, students will build on the knowledge and skills for mathematics in Kindergarten-Grade 8 and Algebra I to strengthen their mathematical reasoning skills in geometric contexts. Within the course, students will begin to focus on more precise terminology, symbolic representations, and the development of proofs. Students will explore concepts covering coordinate and transformational geometry; logical argument and constructions; proof and congruence; similarity, proof, and trigonometry; two- and three-dimensional figures; circles; and probability. Students will connect previous knowledge from Algebra I to Geometry through the coordinate and transformational geometry strand.

The TEKS can be found in detail on the Texas Education Agency website.

http://ritter.tea.state.tx.us/rules/tac/chapter111/ch111c.html#111.41

Formative Assessments: Following is an excerpt from the book Transformative Assessment *by W. James Popham* that is useful in gaining an understanding of "formative assessments":

> "After considering a variety of earlier definitions, and after numerous foreseeable rounds of participants' wordsmithing, the FAST SCASS group adopted the following definition:
>
> Formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students' achievement of intended instructional outcomes.
>
> Let's look at the key features of the FAST SCASS definition:
>
> - Formative assessment is a *process*, not any particular test.
> - It is used not just by teachers but by *both teachers and students*.
> - Formative assessment takes place *during instruction*.
> - It provides *assessment-based feedback* to teachers and students.
> - The function of this feedback is to help teachers and students make *adjustments* that will improve students' achievement of intended curricular aims."

Grading:

**Per Nine Weeks*: Guided/Independent Practice: 50%, Assessments 50%

Projects: Projects may be assigned. They will either be completed as group work or independent work. Students will be notified in advance of each project as to whether it will be graded as an assignment or an assessment.

Guided/Independent Practice:

Class work: Class work consists of any activities done during the class period that are selected for grading.

Assignments: Please make sure the assignments are clearly labeled or no credit will be earned. IF I CAN'T FIND THE PROBLEMS, I CAN'T CHECK THEM!

LATE WORK: Late assignments have a 5 point per day late penalty (not including weekends/holidays).

Assessments: Assessments include but are not limited to quizzes and/or tests. Retesting will be allowed only on exams and only for exams with a score below 75% if done within the given time period as determined by the teacher (usually one week after the exam is returned to the student). Highest score on a retest is 75%. *Nine-weeks exams and semester exams cannot be retested.

Per Semester: Each of the two nine-week grades shall comprise 37.5% of the semester grade. A comprehensive semester/final exam shall comprise the remaining 25%.

BEEs… BE prompt, BE polite, BE prepared, BE productive

"Whether you think you can, or you think you can't--you're right." Henry Ford

K. Leonard, Geometry teacher

I. Castillo, Principal

Syllabus –Algebra I Honors

Instructor: Mrs. L. McGee
Conference Period: A/B – 3rd/2nd
Telephone Number: (956) 565-4620
Email: loretta.mcgee@stisd.net

Course Description: An Algebra I course is an entry-level mathematics course that includes the foundation concepts for high school mathematics courses as well as algebraic thinking, symbolic reasoning, and tools for algebraic thinking and problem solving. This course includes the review of basic algebraic expressions, relations, and functions; linear functions, equations and inequalities; quadratic functions and equations; exponential functions and equations; radical expressions; arithmetic and geometric sequences.

Always
Listen
Give
Effort
Be
Ready
Awesome!

GOALS AND OBJECTIVES: At the conclusion of this course the students will have a greater awareness of the Algebraic world in which we live. They will be able to apply problem solving skills using the knowledge gained through this course in future math courses, college entrance exams, AP courses as well as in other disciplines. The objectives for the course are included in the Texas Essential Knowledge and Skills (TEKS) from the Texas Education Agency which are available http://tea.texas.gov/curriculum/teks/.

GRADING:

Per Nine-Weeks

Quizzes	15%
Guided/Independent Practice	45%
Assessments	40%

Per Semester

Each of the two nine-week grades shall comprise 37.5% of the semester grade. A comprehensive semester/final exam shall comprise the remaining 25%.

Quizzes:

Quizzes or mini assessments for the current chapter/unit will cover 3 – 5 sections/concepts.

Guided/Independent Practice:

Class work: Class work consists of any activities done during the class period that are selected for grading. Some projects may be assigned.

Homework: Written assignments are due at the beginning of the next class period. Please make sure the assignments are clearly labeled or no credit will be earned. **IF I CAN'T FIND THE PROBLEMS, I CAN'T CHECK THEM!** Assignments will be graded on completion. All work must be shown to get full credit for each graded problem. 1 pt. each is awarded for work and/or answer for each problem. Your assignment grade = (total points earned/total points possible) x 100. Some assignments will be online.

Late work: Assignments for a specific chapter can be turned in late until the day of the chapter test. They will not be accepted for credit after the day of the chapter test. Late assignments have a 5 point per class day late penalty that will be subtracted from the score earned.

Assessments:

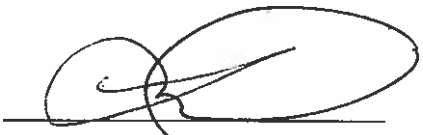
Assessments include but are not limited to quizzes and/or tests. Tests are chapter/unit tests. The test grade may replace quiz grades (score must be 60 or higher) for that chapter/unit. If quiz score is lower than 60, highest replacement score is 75. Chapter/unit tests with a score below a 75 may be retested within the given time period as determined by the teacher. The highest score that can be received on a retest is a 75. ***Nine-weeks exams and semester exams cannot be retested.**

FORMATIVE ASSESSMENT: Throughout Algebra I, a variety of formative assessments will be utilized. These assessments range from oral discussion, surveys, guided practice, daily warm-ups, and/or class assignments. These types of assessments will help shape and customize the process of learning.

ABSENCES: Please make every effort to attend every day. ***It is very hard to earn credit for a class when you are not here.*** You are responsible for turning in homework and getting makeup work. Time allowed for makeup work is one day for every absence. Notes and assignments will be posted on Blackboard.

PYRAMID OF INTERVENTIONS: The Objective of this class is for every student to successfully demonstrate mastery of the Texas Essential Knowledge and Skills (TEKS) and the South Texas ISD Essential Learning Outcomes (ELO'S) for Algebra Honors. Students not successfully progressing may be required to attend morning tutorial (available from 8:20 – 8:53 every morning Monday thru Thursday before school and 8:20 – 9:20 every other Friday morning), or after school tutorials.

L. McGee, Teacher



Dr. I. Castillo, Principal

2019-2020 School Year August 19 - 20, 2019

Student name: _____ ID #: _____
(print)

Dear parent/guardian,

I would like to welcome your son/daughter to my Algebra I class. I am looking forward to a *GREAT* year of learning with my students. Communication between parents/guardians, students, and their teachers is very important for success. The syllabus contains rules, guidelines, and other information necessary for that success.

After reviewing the syllabus with your son/daughter, please sign and return this page by August 21 or 22, 2019. Please include any information that will help me in contacting you. The syllabus is for you and your son/daughters information. ***It must be kept in their binder for reference.*** At your request (via e-mail), I will e-mail a copy of the syllabus to you. The syllabus is also available for your son/daughter to access on blackboard.

Thank you for your wonderful student!

Sincerely,

Mrs. Loretta McGee
Geometry Honors , Algebra I Honors
loretta.mcgee@stisd.net

*I have reviewed the syllabus and know what is expected of my son/daughter.

_____ _____ _____
Parent signature Phone Number e-mail address

_____
Print parent/guardian name

*I have reviewed the syllabus and know what is expected of me in this course.

_____ _____
Student Signature e-mail address

Syllabus – Geometry Honors

Instructor:	Mr. P. Montague	Mrs. L. McGee
Conference Period:	A/B – 3rd/4th	A/B – 3rd/2nd
Telephone Number:	(956) 565-4620	(956) 565-4620
Email:	patrick.montague@stisd.net	loretta.mcgee@stisd.net

***COURSE DESCRIPTION*:** Geometry studies the shapes and sizes of objects, their properties, and relationships. The main purpose of Geometry is to learn to *reason logically*, which is essential for wise decision-making.

GIVE
EVERY
OPPORTUNITY
MUCH
EFFORT
TRY!

***GOALS AND OBJECTIVES*:** At the conclusion of this course the students will have a greater awareness of the Geometric world in which we live. They will be able to apply problem solving skills using the knowledge gained through this course in future math courses, college entrance exams, AP courses as well as in other disciplines. The objectives for the course are included in the Texas Essential Knowledge and Skills (TEKS) from the Texas Education Agency which are available at http://tea.texas.gov/curriculum/teks/.

***GRADING*:**

Per Nine-Weeks

Assessments	50%
Guided/Independent Practice	50%

Per Semester

Each of the two nine-week grades shall comprise 37.5% of the semester grade. A comprehensive semester/final exam shall comprise the remaining 25%.

Guided/Independent Practice:

Class work: Class work consists of any activities done during the class period that are selected for grading. No major projects will be assigned.

Assignments: Assignments are due at the beginning of the next class period. Please make sure the assignments are clearly labeled or no credit will be earned. **IF I CAN'T FIND THE PROBLEMS, I CAN'T CHECK THEM!** Assignments will be graded on completion. All work must be shown to get full credit for each graded problem. 1 pt. each is awarded for work and/or answer for each problem. Your assignment grade = (total points earned/total points possible) x 100.

Late work: Assignments for a specific chapter can be turned in late until the day of the chapter test. They will not be accepted for credit after the day of the chapter test. Late assignments have a 5 point per class day late penalty that will be subtracted from the score earned.

Assessments:

Assessments include but are not limited to quizzes and/or tests. Quizzes will cover 3 – 5 sections. Tests are chapter/unit tests. The test grade may replace quiz grades (score must be 60 or higher) for that chapter/unit. If quiz score lower than 60, highest replacement score is 75. Chapter/unit tests with a score below a 75 may be retested within the given time period as determined by the teacher. The highest score that can be received on a retest is a 75.
***Nine-weeks exams and semester exams cannot be retested.**

FORMATIVE ASSESSMENT: Throughout Geometry Honors, a variety of formative assessments will be utilized. These assessments range from oral discussion, surveys, guided practice, class assignments, labs, and quizzes. These types of assessments will help influence and shape the process of learning before a test is given.

ABSENCES: Please make every effort to attend every day. ***It is very hard to earn credit for a class when you are not here.*** You are responsible for turning in homework and getting makeup work. Time allowed for makeup work is one day for every absence. Notes and assignments will be posted on Blackboard.

PRYAMID OF INTERVENTIONS: The Objective of this class is for every student to successfully demonstrate mastery of the Texas Essential Knowledge and Skills (TEKS) and the South Texas ISD Essential Learning Outcomes (ELO'S) for Geometry Honors. Students not successfully progressing may be required to attend morning tutorial (available from 8:20 – 8:53 every morning Monday thru Thursday before school and 8:20 – 9:20 every other Friday morning), or after school tutorials.

P. Montague, Teacher | L. McGee, Teacher | Dr. I. Castillo, Principal

2019-2020 School Year August 19 - 20, 2016

Student name: _____ ID #: _____
(print)

Dear parent/guardian,

I would like to welcome your son/daughter to my Geometry Honors class. I am looking forward to a *GREAT* year of learning with my students. Communication between parents/guardians, students, and their teachers is very important for success. Attached is a syllabus containing rules, guidelines, and other information that is important for success in this course.

After reviewing the syllabus with your son/daughter, please sign and return this page by August 21 or 22, 2019. Please include any information that will help me in contacting you. The syllabus is for you and your son/daughters information. At your request (via e-mail), I will e-mail a copy of the syllabus to you. The syllabus will also be available for your son/daughter electronically.

Thank you for your wonderful student!

Sincerely,

Mrs. Loretta McGee
Geometry Honors, Algebra I Honors

Mr. Patrick Montague
Geometry Honors, Algebra II Honors

*I have reviewed the syllabus and know what is expected of my son/daughter.

_____ _____ _____
Parent/guardian name (print) Phone Number E-mail address

_____
Parent/guardian signature

*I have reviewed the syllabus and know what is expected of me in this course.

_____ _____
Student Signature e-mail address

Syllabus – Geometry Honors

Instructor:	Mr. P. Montague	Mrs. L. McGee
Conference Period:	A/B – 3rd/4th	A/B – 3rd/2nd
Telephone Number:	(956) 565-4620	(956) 565-4620
Email:	patrick.montague@stisd.net	loretta.mcgee@stisd.net

***COURSE DESCRIPTION*:** Geometry studies the shapes and sizes of objects, their properties, and relationships. The main purpose of Geometry is to learn to *reason logically*, which is essential for wise decision-making.

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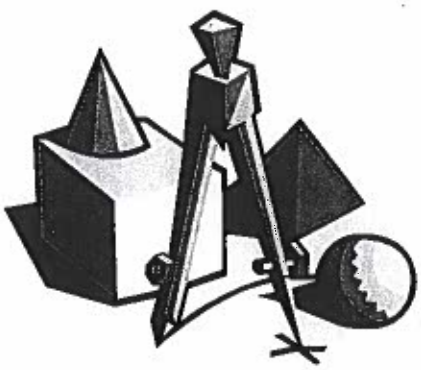

***GOALS AND OBJECTIVES*:** At the conclusion of this course the students will have a greater awareness of the Geometric world in which we live. They will be able to apply problem solving skills using the knowledge gained through this course in future math courses, college entrance exams, AP courses as well as in other disciplines. The objectives for the course are included in the Texas Essential Knowledge and Skills (TEKS) from the Texas Education Agency which are available at http://tea.texas.gov/curriculum/teks/.

***GRADING*:**

Per Nine-Weeks

Assessments	50%
Guided/Independent Practice	50%

Per Semester

Each of the two nine-week grades shall comprise 37.5% of the semester grade. A comprehensive semester/final exam shall comprise the remaining 25%.

Guided/Independent Practice:

Class work: Class work consists of any activities done during the class period that are selected for grading. No major projects will be assigned.

Assignments: Assignments are due at the beginning of the next class period. Please make sure the assignments are clearly labeled or no credit will be earned. **IF I CAN'T FIND THE PROBLEMS, I CAN'T CHECK THEM!** Assignments will be graded on completion. All work must be shown to get full credit for each graded problem. 1 pt. each is awarded for work and/or answer for each problem. Your assignment grade = (total points earned/total points possible) x 100.

Late work: Assignments for a specific chapter can be turned in late until the day of the chapter test. They will not be accepted for credit after the day of the chapter test. Late assignments have a 5 point per class day late penalty that will be subtracted from the score earned.

Assessments:

Assessments include but are not limited to quizzes and/or tests. Quizzes will cover 3 – 5 sections. Tests are chapter/unit tests. The test grade may replace quiz grades (score must be 60 or higher) for that chapter/unit. If quiz score lower than 60, highest replacement score is 75. Chapter/unit tests with a score below a 75 may be retested within the given time period as determined by the teacher. The highest score that can be received on a retest is a 75.
***Nine-weeks exams and semester exams cannot be retested.**

FORMATIVE ASSESSMENT: Throughout Geometry Honors, a variety of formative assessments will be utilized. These assessments range from oral discussion, surveys, guided practice, class assignments, labs, and quizzes. These types of assessments will help influence and shape the process of learning before a test is given.

ABSENCES: Please make every effort to attend every day. ***It is very hard to earn credit for a class when you are not here.*** You are responsible for turning in homework and getting makeup work. Time allowed for makeup work is one day for every absence. Notes and assignments will be posted on Blackboard.

PRYAMID OF INTERVENTIONS: The Objective of this class is for every student to successfully demonstrate mastery of the Texas Essential Knowledge and Skills (TEKS) and the South Texas ISD Essential Learning Outcomes (ELO'S) for Geometry Honors. Students not successfully progressing may be required to attend morning tutorial (available from 8:20 – 8:53 every morning Monday thru Thursday before school and 8:20 – 9:20 every other Friday morning), or after school tutorials.

P. Montague, Teacher | L. McGee, Teacher | Dr. I. Castillo, Principal

2019-2020 School Year August 19 - 20, 2016

Student name: _____ ID #: _____
(print)

Dear parent/guardian,

I would like to welcome your son/daughter to my Geometry Honors class. I am looking forward to a *GREAT* year of learning with my students. Communication between parents/guardians, students, and their teachers is very important for success. Attached is a syllabus containing rules, guidelines, and other information that is important for success in this course.

After reviewing the syllabus with your son/daughter, please sign and return this page by August 21 or 22, 2019. Please include any information that will help me in contacting you. The syllabus is for you and your son/daughters information. At your request (via e-mail), I will e-mail a copy of the syllabus to you. The syllabus will also be available for your son/daughter electronically.

Thank you for your wonderful student!

Sincerely,

Mrs. Loretta McGee
Geometry Honors, Algebra I Honors

Mr. Patrick Montague
Geometry Honors, Algebra II Honors

*I have reviewed the syllabus and know what is expected of my son/daughter.

_____ _____ _____
Parent/guardian name (print) Phone Number E-mail address

_____
Parent/guardian signature

*I have reviewed the syllabus and know what is expected of me in this course.

_____ _____
Student Signature e-mail address

Revised August 16, 2019

SYLLABUS ------- Algebra II (Honors)

Instructor: Mr. P. Montague
Conference Period: A/B - 3rd/4th
Telephone Number: (956) 565-4620
Email: patrick.montague@stisd.net

Course Description

Algebra II covers the review of basic algebra, linear equations, systems of linear equations and inequalities, matrices and determinates, quadratic equations and parabolas, functions, powers, roots, radicals, exponential and logarithmic functions, polynomials, rational functions, quadratic relations, trigonometric ratios and functions, trigonometric graphs and equations.

First Semester Major Topics	Second Semester Major Topics
Foundations for Functions	Polynomial Functions
Linear Equations and Inequalities	Exponential and Logarithmic Functions
Linear Functions	Rational Functions
Linear Systems	Radical Functions
Quadratic Equations	Properties and Attributes of Functions

Other topics if time permits: Sequences and Series, Trigonometric Ratios and Functions, Trigonometric Graphs, Identities, and Equations, Probability and Statistics, Matrices, Conics.

Supplies needed: 3-ring binder; loose-leaf paper or spiral notebook, Composition Notebook: #2 pencil (mechanical is recommended); a graphing, scientific calculator (TI-84 Plus Silver Edition, or equivalent) is strongly recommended for use in this and subsequent mathematics courses as well as in various science and technology classes.

Rules and regulations: The student will be expected to:

1. Comply with all rules and regulations as stated in the current student handbook.
2. Be in regular attendance; be prompt to and prepared for class.
3. Behave in a courteous and polite manner.
4. No electronic devices will be allowed unless it is needed for the current lesson. If it is visible to me, or if I suspect its use in class, the student will be required to turn it over to me immediately.
5. No food or drink is allowed in the classroom during class time.
6. Follow all directions as given by the instructor.

Formative Assessment: Throughout Algebra II Honors, a variety of assessments will be utilized. These assessments range from oral discussion, surveys, guided practice, class assignments, and quizzes. These types of assessments will help influence and shape the process of learning before a test is given.

Projects: No major projects are planned.

Grading system: As per school policy, the following evaluation procedure shall apply --

Per Nine-Week:

Daily evaluation or homework	20%
Quizzes	30%
Tests	50%

Per Semester:

Each of the 2 nine-weeks' grades shall comprise 37.5% of the semester grade for a total of 75%. A comprehensive, semester exam shall comprise the remaining 25%.

Revised August 16, 2019

Daily Work:

Class work: Class work consists of any activities done during the class period that are selected for grading.

Assignments: Assignments are due at the beginning of the next class period. Please make sure the assignments are clearly labeled or no credit will be earned. **IF I CAN'T FIND THE PROBLEMS, I CAN'T CHECK THEM!** Assignments will be graded on completion. All work must be shown to get full credit for each graded problem.

Quizzes:

Quizzes will cover 3 to 5 sections each.

Tests:

Tests are chapter/unit tests. The test grade may replace quiz grades (score must be 60 or higher) for that chapter/unit. If quiz score is lower than 60, highest replacement score is 75. Chapter/unit tests with a score below a 75 may be retested within the given time period as determined by the teacher. The highest score that can be received on a retest is a 75.

***Nine-weeks exams and semester exams cannot be retested.**

Make-up work:

If you are absent, you are responsible for getting the notes from another classmate. Assignments will be posted in the classroom. Due to block scheduling, most of you will have the opportunity to come and find me before returning to class. Extended absences will follow district policy for makeup work.

Late Work:

Late work will not be accepted.

P. Montague, Teacher

L. Madrigal, Vice Principal

Course Syllabus for Pre-Calculus
2019-2020

8/15/19

Instructor: Mrs. Mardonnia L. Silva
Teacher Email: mardonnia.silva@stisd.net
Phone Number: (956) 565-4620

Teacher conference: 1:05 – 2:25 pm
Textbook: College Algebra & Trigonometry

COURSE DESCRIPTION and OBJECTIVE:

This course is the study of quadratic, polynomial, rational, logarithmic and exponential functions, trigonometric functions, identities, inverse trigonometric functions, vectors and its applications, conic sections, and applications. The objective of the class is to develop a quantitatively literate college-ready student who is able to apply a wide-range of mathematical tools in the solution of real-life problems.

NEEDED SUPPLIES:

Spiraled Graphing Notebook
Mechanical Pencils/Pencils
Three-ring binder (1 1/2 in.)
College Ruled Paper
Graphing Paper
Pens (Black/Blue/Red)

Optional:

TI-NSpire Calculator OR
TI-84+ for Home Use

CLASS USE:

Box of Tissue

LESSON NOTES:

Students are expected to take "Lesson Notes" including example problems and online video tutorials. These will be done in their composition notebook. They are **encouraged** to add personal notes and comments in addition to copying the teacher notes and examples. Sometimes the student will be asked to read a lesson from a textbook and make their own notes. If the student is absent, he/she is responsible for obtaining in-class notes from another **responsible** student.

Binder: **All quizzes and major tests must be organized in the binder.** It will be divided as follows:

- Syllabus and STC assignments LIST.
- Quizzes
- Tests

FORMATIVE ASSESSMENT (WEEKLY):

It is an active and intentional learning process where the teacher and the student gather evidence of learning with the goal of improving learning and achievement. Formative assessment is aimed at a specific goal and not an incidental outcome. The evidence of student learning is connected to actionable and timely feedback from the teacher. Formative assessment tells the student and the teacher what comes next in learning.
The primary purpose of formative assessment is to improve learning, not to audit it (Moss and Brookhart, 2009.)

HOMEWORK/CLASSWORK (10 to 20 per 9wks): "Practice makes permanent"

1. SHOW ALL WORK neatly on your paper, along with the answers.
2. Expect to have a homework **OR** a classroom assignment each class period.
3. Homework will be done on loose leaf paper unless it is given as an online assignment.
4. Homework can be assigned through MyMathLab, Khan Academy or print.
5. If a student is present, the day the homework is assigned and does not have their completed homework on the following class period a "Missing" designation will be given for EACH assignment that is not turned in.

CLASS RULES: Be respectful. Be prepared. Be responsible. Keep trying.

LATE WORK:

I do **NOT** accept late work for FULL credit. **All assignments should be turned in on due date.** Exceptions might include: illness; a death in the family, sudden trip away from home, or other excused absence determined by school policy. Due to an absence, student has 48 hours to make-up missing work for full credit. REMEMBER we are on an alternating block schedule, so any work not done on time means that the student is then at least 2 lessons behind. Homework should be done on the day it is assigned not the night before class or the day of class. Too much can be forgotten if a student does not do the assignments in a timely manner.

The highest grade a late assignment will be given is a 70.

QUIZZES (4 to 10 per 9wks):

Short quizzes will be given regularly. "Review" quizzes may include any topics previously covered in the course as well as quizzes that cover computation skills learned in previous grades. Quizzes may or may not be announced.

TESTS (2 – 3 per 9wks)/ PROJECT (2nd SEM ONLY):

Tests questions will include all information covered since the last test and may include information from previous tests. **There is no project assignment for first semester.** A research project will be assigned for second semester and will be counted as a test grade. Topic will be chosen at the beginning of 2nd semester and will be presented at the end of the semester.

RETEST: WILL ONLY BE ADJUSTED FOR HIGH SCHOOL GRADE

(A retest is a test with the same types of questions; it is not the same test.)

If a student fails a test they must do the following for a better grade:

1. They must take their test home to make corrections. Since this class is a cumulative course your need to understand the material covered does not end with the test on that topic. It is therefore expected that you go back over your tests and redo the problems correctly that you did incorrectly. These corrections must be done on a separate sheet of paper and all of the work/thoughts must be clearly expressed. In addition, each correction must be accompanied by an explanation in full sentences of what you originally did incorrectly. These corrections should be stapled to the back of your quiz or test and handed in within 48 hours of the test being handed back to the class (if you are absent that day you only have 24 hours etc.) Corrections will be graded on neatness, completeness, and correctness and will generally count for up to **10 points** for a **70%** grade.
2. They must attend a tutorial session before/after school if the students need more feedback.
3. Show up on assigned days, Tuesday or Thursday, for retest after school within a week if the grade after test corrections is still below 70%.

Note: Retests will be given **no later** than one week after the student is notified of a failing test grade for **a maximum grade of 70.**

GRADING WEIGHTS:

TS	Tests	**50%**
QZ	Quizzes	**30%**
DW	Daily Work	**20%**
	TOTAL	**100%**

Each grade category will have an average and the percentage/weights will be applied to compute for the final average. It is highly recommended for students and parents to keep track of grades online through Infinite Campus.

MATH 1414 COLLEGE ALGEBRA and MATH 2412 PRECALCULUS from Department of Mathematics, South Texas College will have separate syllabus and distributed to students enrolled in the dual enrollment program.

Mrs. Mardonnia L. Silva
Science Academy Faculty

Dr. Irma Castillo
Science Academy Principal

PLEASE FILL OUT THE FOLLOWING INFORMATION AND RETURN TO MRS. SILVA, ROOM 201

STUDENT: I, (PRINT NAME) _____, have read the Course Summary for Pre-Calculus Honors Dual Enrollment Studies for the school year 2019-2020 and understand the information that has been provided. I will be **proactive in my learning** by:

- Coming to class prepared,
- Initiating and completing assignments,
- Collaborating and cooperating with my classmates when asked to do group work, and
- Doing my best to be prepared for the class exams.

_____ _____ _____

Student Signature Date Class Period

PARENT/GUARDIAN: I have read the Course Summary for Pre-Calculus Honors Dual Enrollment Studies for the school year 2019-2020 and would be **proactive in supporting my child** by:

- Checking their progress on Infinite Campus,
- Communicating concerns about my child's progress to the teacher,
- Providing a safe and supportive environment for my child; and
- Maintaining a high expectation and encourage my child to do his/her best in Pre-Calculus Honors Dual Enrollment class.

_____ _____ _____

Printed Name Parent/Guardian Signature Date

Note to PARENTS:
Please write the information below if it is **different** from the one listed on school form. Please check that you have access to Infinite Campus for your child's grades and attendance information.

_____ Yes, I have access to Infinite Campus. _____ No, I don't have access to Infinite Campus

PRINT Name: _____

Phone/Cell Number: _____

E-mail: _____

Thank you for your help.
Mrs. Mardonnia L. Silva, **M.A.**