SCHOLÉ ACADEMY
CLASSICAL ACADEMIC PRESS

Pre-Algebra

ELIGIBLE STUDENTS:

Grades 7th – 8th (9th – 12th welcomed): This course is designed for students who have successfully completed a robust arithmetic curriculum.

Class Dates: Tuesday, September 3, 2019; running through Friday, May 22, 2020.
Class Times: MWF: 12:30pm-1:45pm (EST)

SCHEDULE FOR PRE-ALGEBRA

CLASS SESSIONS DATES:

The school year is 32 weeks and meets weekly except during the following holiday breaks:

September 2, **November** 25-29, **December** 16 - **January** 3, **February** 17-21, **April** 6-10

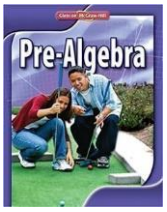
**Please note that all dates are subject to change as the instructor's circumstances might dictate (e.g. illness, family emergency). Any classes canceled by the instructor will be made up at an alternate time designated by the instructor.*

PRE-ALGEBRA COURSE MAP:

Unit 1: Rational Numbers and Equations
Unit 2: Proportions & Similarities
Unit 3: Linear & Nonlinear Functions
Unit 4: Two and Three-Dimensional Space
Unit 5: Data Sets

OFFICE HOURS: In addition to scheduled class times, teachers will generally designate an optional weekly session as needed. During "Office Hours" students may raise questions, seek assistance, or review class material.

REQUIRED MATERIALS:



- **Glencoe Pre-Algebra, 2008/2010 edition**

The Glencoe Pre-Algebra is accessible to students of all mathematical abilities. Each lesson contains a large number of practice problems, higher-order thinking problems, and a spiral review. Each chapter contains a review of concepts that will be needed in the chapter, hands-on learning labs, and a chapter review.

- Digital tablet. We recommend Wacom Intuos tablets. Similar products may be used.
- Three-ring notebook dedicated to this course
- Five dividers
- Binder Pencil Pouch with multiple sharpened pencils, erasers, protractor, and a drawing compass or bullseye compass
- Notebook paper
- Graph paper

Other Required Materials

- Google account – for Google Classroom and other educational products
- PDF Escape – account for PDF assignment completion
- TBD – We will utilize technology throughout the course which may require students to create an account to access the product. This will be communicated as needed.

Other Tools you may need Access to (accounts are not required to use these tools)

- Demos Online Graphing Calculator
- Virtual Algebra Tiles
- Virtual Manipulatives

PRE-ALGEBRA COURSE DESCRIPTION:

The objective of a Pre-Algebra course is to serve as a transition from arithmetic to algebra. Students will build upon skills learned in arithmetic and begin to learn algebraic concepts. Guided by the instructor, students will develop fluency in working with rational numbers and integers; explore relationships between fractions, decimals, and percents; and develop competency in algebraic expressions, linear equations, polynomials, and inequalities. Students will explore connections between math and everyday applications through problem-solving and hands-on activities.

PARENT EXPECTATIONS IN ACTION

Parents expectations are simply to ensure that the student has all of the required materials needed for the course, a stable internet connection, a distraction free environment during class, and adequate time to study outside of class hours. Parent assistance with assignments is not expected and should not be required. If a student is struggling with an assignment, parents are asked to follow the provided Parental Math Assistance Guide. However, if your student is accustomed to having your assistance with math, there will likely be a transition period as they build their level of tolerance and confidence in working math independently.

STUDENT EXPECTATIONS IN ACTION

In this class, students will be expected to listen attentively and participate actively. Students are expected to arrive to class on time and with all assigned material completed. The instructor will facilitate learning for the student, but the responsibility for staying up-to-date with classwork and assignments ultimately falls to the student. If a student is struggling with content or an assignment, it is their responsibility to seek approved help. Students should not utilize technology to complete their assignments for them.

The course relies heavily on discussion as students are asked to think about and question what they are learning. During the discussion, students will present problems, review answers, pose questions, explain and justify their answers, and think out-loud. Students are encouraged to embrace their mistakes as opportunities to learn. A FAIL is a first attempt in learning. If a student performs poorly on an assignment, they are expected to rework the assignment (or an alternative) for full or partial credit.

Time Commitment – Pre-Algebra presents an increase in rigor which is often perceived as an increase in pace. It is recommended that students plan to spend 3 hours per week on mathematics beyond class hours. We do not meet two days per week and (average) students should plan to study math for 60-90 minutes each of those days. Additionally, students should plan to spend 10-20 minutes on class days to review classwork and class notes. Math content varies in difficulty (which also varied by student). Therefore, there may be times when less time is required and times when more time is required. At times, students may need to spend some time on Saturdays, but this is not a weekly expectation for the average math student.

All assignments will be due into the appropriate Schoology Assignment. Students turning in late work will earn a 10% penalty for each day the assignment is late. Students will submit their work by scanning their homework pages and uploading it into the Schoology assignment. Assignments should be submitted as one pdf file. Photographs of completed assignments will not be accepted as they are incredibly difficult to read.

STUDENT EXPECTATIONS: EXECUTIVE FUNCTION SKILLS

Students enrolling in Scholé Academy's Mathematics Program will be expected to show development of Executive Function Skills throughout the year. Executive Function Skills speaks to a set of qualities and skill sets students can develop and hone to better approach the courses, lectures, readings and teachers they will face in their future academic coursework.

Executively, students are expected to be:

1. **An Engaged Student:** One who is not easily distracted by their surroundings and is willing to step into the arena of class discussion, ask questions, supply answers, generate the internal dialogue necessary to determine if what's being discussed is important and necessary to himself.

2. **Note Takers:** A student who during and after being engaged with the class has been trained to note important and relevant content in an organized manner. His notes would then be consulted, independently, for application in assignments and assessments.

3. **Attention to Detail & Preparedness:** These students are ones who consistently adhere to deadlines, submission requirements, assignment instructions, and confirm technology is working prior to the start of class. This student is responsible in determining how to proceed after an absence and adjusting as the class proceeds, etc.

4. **Employ Critiques:** These students are ones who receive feedback to one of their submissions, and then are sure to apply that feedback to future assignments rather than repeating mistakes. These students also glean information from the live class critiques of fellow students and note mistakes to avoid by learning from others.

5. **Initiative/Maturity:** During class this student will display a level of maturity that exhibits an ability to focus and engage in his learning and refrain from activities that cause him to become a distraction for others. The student exhibits the maturity to seek out appropriate sources of assistance when struggling with assignments or problems.

STUDENT EVALUATION: GRADING

Grades are a feedback mechanism from the teacher to the student as to their level of mastery. Grades are determined by the student utilizing an appropriate process, arriving at an accurate answer, and supporting that answer by showing their thinking. In line with a theme of restfulness, assignments will be communicated using a Mastery Scale as defined below. The purpose of this grading scale is to provide students with a clear, unambiguous message as to their level of mastery. Additionally, it provides the students with the opportunity to focus on mastery of the content rather than grades.

Inasmuch as you might be fully on board with this grading method in theory, there will undoubtedly be the need to complete a college transcript with either a numeric or traditional letter grade. Traditional percentage grades will be provided for transcript purposes upon request. Additionally, Dr. Riley will provide a transcript of that grade to the requesting parent at the end of the year.

The Mastery Grade Scale is as follows:

- Master: this grade will be rewarded to a student whose work shows mastery of the material.
- Journeyman: this grade will be rewarded to students who are near mastery. This level is considered to be satisfactory, but students will be encouraged to continue working on the assignment.
- Apprentice: this grade will be rewarded to students who need to spend more time studying the content. They will be encouraged to rework the assignment and may be provided with additional study materials as needed.

STUDENT EVALUATION: ASSIGNMENTS, TYPES & WEIGHTS

Dr. Riley will communicate with students regarding assignment feedback and grading through the free online grading system, Schoology. Students' grades will be comprised of:

Class Work: 15% of the grade
Homework: 15% of the grade
Lab Work: 15% of the grade
Projects: 15% of the grade
Assessments: 40% of the grade

STUDENT EVALUATION: ACADEMIC DISHONESTY

Students will often complete projects, labs, and take assessments privately at home. Students are on their honor to abide by Scholé Academy's Learning Philosophy which assumes the personal cultivation of Student-Virtues described in the Student-Parent Handbook.

Additionally, plagiarism and the use of Math Solver websites or apps is a serious and punishable offense. Such assignments will result in a failing grade.

THE VIRTUAL CLASSROOM:

We will be using the free online "virtual classroom" software provided by Zoom, one of the leading companies that provides such software. The virtual classroom will provide students with interactive audio, and an interactive whiteboard in which texts, diagrams, video and other media can be displayed and analyzed. We will provide students with a link (via email) that will enable students to join the virtual classroom.

We will also utilize the learning management system, Schoology where communication and assignment submission will occur. Students will submit assignments using scanning technology/apps (like ClearScan). Submissions must be single-file pdfs.

Specific information regarding the technology used by Scholé Academy (including required technology) can be found by visiting the Technology in the Classroom section of the Student Parent Handbook.

ABOUT THE INSTRUCTORS:

Dr. Fransell Riley spent most of her career working as a quantitative analyst. She earned her Ph.D. in Mathematics from the University of Texas at Arlington with every intention of remaining in Corporate America. Though she enjoyed her work, she ultimately responded to an internal call to pursue a passion for educating students, including her own children. Fransell has taught math and science to students of all ages from elementary school to college. While teaching, she noticed that her natural teaching style aligned almost perfectly with the concepts of Classical education. She takes a holistic approach to teaching and involves her students in discussions aimed at developing a deeper understanding of the concept being taught with the desire that student learning extend beyond memorizing algorithms. Fransell has a passion for mathematics and seeks to share that passion with the next generation. friley@scholeacademy.com

Dr. John Dever earned a PhD in mathematics from Georgia Institute of Technology in 2018. Before that he earned both bachelor's and master's degrees in mathematics from the University of Mississippi. For the 2018-2019 school year he was a Visiting Assistant Professor at Bowling Green State University in Ohio. He has had over eight years of experience teaching a wide variety of mathematics courses at the college level. He has also taught middle school and high school mathematics for three years as a volunteer teacher and tutor at an Orthodox Christian school. He enjoys cultivating interest and curiosity in mathematics among students. He prioritizes student participation and discussion in class as means of helping students to build confidence and see the interconnections of the mathematical ideas under discussion. He hopes that students will begin to view mathematics as both a creative activity, in which they may be active participants, as well as a means of practical problem solving. jdever@scholeacademy.com