Algebra I
Yearlong 2017/18

ELIGIBLE STUDENTS:
Grades 8th – 9th (10th – 12th welcomed): This course is designed for students who have successfully completed Algebra I or its equivalent.

Class Dates: Begin Tuesday, September 4, 2018; running through Friday, May 24, 2019.
Class Times: Tuesdays, Thursdays, and Fridays: 12:30am-1:45pm (EST)
Instructor: Fransell Riley
E-mail: friley@scholeacademy.com

SCHEDULE FOR ALGEBRA I

CLASS SESSIONS DATES:
Classes will take place on Tuesdays, Thursdays, and Friday: 12:30am-1:45pm (EST)
for 32 weeks beginning September 4, 2018 – May 24, 2019* except during the following holiday breaks:

September 3
November 19-23
December 17 - **January** 4
February 18-22

*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.

ALGEBRA I COURSE MAP:
Unit 1: Functions
Unit 2: Linear Functions and Relations
Unit 3: Nonlinear Expressions, Equations, and Functions
Unit 4: Advanced Functions and Equations
Unit 5: Data Analysis

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 Algebra 1, 2010 edition**
The Glencoe Algebra 1 textbook 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.
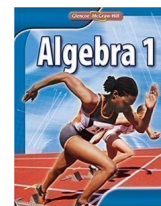
- Digital tablet, such as this one from Amazon. We recommend the Wacom Intuos tablets, though similar products may be used.)
- Three-ring notebook
- Notebook paper
- Five dividers
- Three sharpened pencils with erasers
- Graph paper
- Protractor
- Drawing compass or bullseye compass
- Manipulatives (printed on card stock or laminated; digital file will be provided)

ALGEBRA I COURSE DESCRIPTION:

Algebra I serves as the foundation for all future mathematics courses. It is the course where students begin to formulate abstract algebraic generalizations from their concrete understanding of mathematics. Students will learn to solve problems using equations, inequalities, and graphs. Students will investigate linear relationships, translating those relationships into mathematical equations. Students will explore: solving equations and inequalities, simplifying expressions, linear and quadratic functions, exponents, polynomials, factoring, radicals, data analysis, and probability.

STUDENT EXPECTATIONS IN ACTION

Students will be following the sequence of study contained in Algebra I. The ultimate goal for the student will be to apply the skills they learn in class as they engage with the world around them. Therefore, some student work and assessments will be completed in the text, using some online tools and assignments, through regular classroom participation, and at-home math labs. Students will be asked to seek out real-life applications for the current math lesson. These may be found in news articles, life experience, or thought experiments.

The course will be taught utilizing discussions rather than as a lecture. During the discussion, students will present problems, review answers, pose questions, explain and justify their answers, and think out-loud.

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.

All assignments will be due into the appropriate Schoology Assignment folder. 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 window. <u>Photographs of completed assignments will not be accepted as they are incredibly difficult to read.</u>

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.

Each teacher will invariably have his own set of requirements and skills he requires students to bring to their studies. Generally speaking, I believe there are five such qualities that are necessary for my students in various subjects; and I believe they would be accepted as "good" by many other teachers as well.

1. **An Engaged Student:** One who 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 Taking:** A student who during and after being engaged with the class has been trained to note important and relevant content in an organized fashion (Cornell Notes would be a great option). 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, adhering to style guides and codes, confirm technology is working prior to the start of class, be responsible to determine how to proceed after an absence, be responsible for consulting his course syllabus 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:** This student would hear the teacher comments and be able to assess whether or not the teacher was describing his work, and then take the initiative to schedule office hours with his teacher if necessary.

STUDENT EVALUATION: GRADING

While pursing the *Algebra I* course through Scholé Academy will be "restful", we also recognize the need to provide grades for students who will be using this course as part of their prepared college transcript. It's a delicate balance to achieve both restful learning and excellent academic performance. Earning a specific grade should not overshadow achievement goals for mastery of this discipline. It is my hope that mastering mathematical principles takes precedent over securing a target grade. Notwithstanding, teacher feedback is an essential part of the learning process, thus, I can assign the following grades to your student's level of achievement: *magna cum laude* (with great praise); *cum laude* (with praise); *satis* (sufficient, satisfactory) and *non satis* (not sufficient).

Ideally, every average student, working diligently, should do praiseworthy work (cum laude). Those who excel beyond this expectation will be the *magna cum laude* students. Students who do adequate but not praiseworthy work be designated *satis*. *Non satis* means lacking sufficiency or adequacy.

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 and will be readily accessed on the *Algebra I* Schoology page. Additionally, Dr. Riley will provide a transcript of that grade to the requesting parent at the end of the year.

STUDENT EVALUATION: ASSIGNMENTS, TYPES & WEIGHTS

Dr. Riley will communicate with students regarding assignment feedback and grading through the free online grading system, Schoology. The teacher will provide students with more detailed information and access to the Algebra I course page.

Students' grades will be comprised of:
1. **Class Participation:** 30% of the grade
2. **Homework:** 25% of the grade
3. **Assessments:** 25% of the grade
4. **Projects (Labs):** 20% 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 is a serious and punishable offense. Proper citation of all sources is essential to the academic endeavor. Remember to cite any source if the information is not common knowledge or is an opinion obtained through any source. A plagiarized assignment will result in a failing grade. Students should consult their chosen style manual (see Student Expectations above) for specific direction on obtaining, quoting and paraphrasing sources.

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, text chat 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.

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.

Students will submit documents by scanning and uploading them to their personal computer, then attaching those files as .pdfs. They will submit their work to the *Algebra I* Schoology assignment page (access granted after enrollment is secured).

ABOUT THE INSTRUCTOR:

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.