

Classes at Town North Presbyterian Church 2022- 2023 School Year

www.greenroofcoop.com

We welcome back to Town North Lundy Taylor. Mr. Taylor will be teaching Robotics 101.

Please note the following:

- Grades listed for all classes are strongly suggested guidelines for placement.
- All classes are held on Thursday at Town North Presbyterian Church in Richardson (1776 N. Plano Rd) two blocks south of the intersection of Campbell and Plano Rd.
- Please contact individual class teachers for more information or to register.

WRITING

Grammar Lab

Instructor: Jane Fuller

972-849-9388

MrsFuller.CATN@gmail.com

Recommended for 7th- 9th grades Intended for those students who need to work on their grammar knowledge and their beginning writing skills. The purpose of grammar is to aid in communication, primarily written communication. This class will provide a strong foundation in English grammar and beginning writing. Students will study the parts of speech, the function of words in a sentence, parts of the sentence, phrases, clauses, punctuation, and capitalization rules. Students will utilize their newly learned skills in various writing exercises each week. (No books needed)

Monthly Tuition: \$45

Materials Fee: \$30

Time: 8:15 – 9:30 am

Pre-Academic Writing

Instructor: Lisa Pfeifer

214-418-1126

MrsPfeifer.CATN@gmail.com

Recommended for 7th- 8th grades. The class objective is to strengthen the skills that form the foundation of good writing. In this introductory paragraph writing class, students will develop the fundamental skills for good descriptive, informative and narrative writing. Learning to use sentence variety and to identify many of the problems that occur in sentence formation, the student will apply good grammar techniques to create well-formed paragraphs. Texts: *Write Shop I, grammar text to be determined.*

Monthly Tuition: \$45

Materials Fee: \$10

Time: 9:30 – 10:30 am

Academic Writing 1

Instructor: Debby Schneider

972-955-2920

MrsSchneider.CATN@gmail.com

Recommended for 8th – 9th grades. Throughout the year, students will transition from writing strong sentences and paragraphs to building well-organized essays. Students will gain experience in a wide variety of composition styles, such as descriptive, narrative, and persuasive. In-class discussion, exercises, and writing prompts will be used to reinforce skills. Students will learn to edit their work through regular practice in draft revision. Writing skills will be taught systematically to prepare students for upper-level writing. Texts: *WriteShop II*

Monthly Tuition: \$45

Materials Fee \$10

Time: 10:30 -11:30 am

Academic Writing 2

Instructor: Rhonda Helmreich

972 -762-8982

MrsHelmreich.CATN@gmail.com

Recommended to be taken in tandem with Beginning High School Literature or before taking upper high school literature classes.

Open to students in the 9th and higher. Students in this class will learn the essay-building process. Using the short story, the students annotate, collect and organize vital information into a usable format to create compelling and robust thesis statements. The student will learn how to develop a logical, coherent, and well-supported argument in favor of the stated thesis. AW2 will also address preparation for the writing portion of the SAT. Emphasis is on various writing techniques to strengthen writing skills for academic situations, ensuring that no student will ever have to stare at a blank page again,

wondering how to begin the writing process. Texts: *Windows to the World, The Elegant Essay Writing Lessons: Building Blocks for Analytical Writing*

Monthly Tuition: \$45

Time: 10:30 – 11:30 am

Academic Writing 3

Instructor: Debby Schneider

972-955-2920

MrsSchneider.CATN@gmail.com

Recommended for 11th-12th grades. Prerequisite: Academic Writing 2, or submission of a five-paragraph essay demonstrating essential skill in thesis construction and essay development.

In this upper-level class, students will develop the skills necessary for transition into college-level writing. The focus will be given to studying and developing the rhetorical elements, such as consideration of audience, interacting with sources, and the effective use of reason, emotion, and word choice to create a convincing argument. Skills will be reinforced through in-class discussion and analysis of a variety of essays and notable works. Written assignments will include argumentative essays, essays on literature, and research papers. As time allows, the ACT and SAT essays will be discussed, as well as the personal essay used for college admissions.

Texts: The Elements of Style, 4th Edition by William Strunk and E. B. White; Essays and Arguments: A Handbook for Writing Student Essays by Ian Johnson; They Say/I Say: The Moves that Matter in Academic Writing, 4th Edition by Gerald Graff and Cathy Birkenstein; Writing Research Papers: The Essential Tools by Lesha Myers

Monthly Tuition: \$50

Materials Fee \$10

Time: 9:30 – 10:30am**LITERATURE**

(Junior High Level)**Intro to Literature 1**

Instructor: Jaree DeMetrotion

972-569-7437

MrsDeMetrotion.CATN@gmail.com

Open to students in the 7th and 8th grades. This course is designed to be a first formal experience for literature. Key literary concepts like plot and character analysis will be introduced. Enriching discussion, book projects, writing, and critical thinking will prepare the student for success within a warm, learning community. Several book titles included: *The Bronze Bow, Bridge to Terabithia, Hatchet, Redwall* and *The Prince and the Pauper*.

Monthly Tuition: \$45

Materials Fee: \$10

Time: 11:30 – 12:30 pm

The classes listed below are in the recommended order. Taking the corresponding History Class with the Literature is also highly recommended.

Intro to Literature 2

Instructor: Jaree DeMetrotion

972-569-7437

MrsDeMetrotion.CATN@gmail.com

Open to students in the 8th and 9th grades.

Intro to Literature 2 provides a broad experience to a variety of classic books for middle school or young high school students. It transitions students into analysis of literary concepts and themes through essays, tests, and projects. This transition takes place with classic books like *To Kill a Mockingbird, The Red Badge of Courage, The Adventures of Tom Sawyer*, and several other classic books. While preparing students for the academic rigors of high school, this course remains strongly personal and engaging in its approach to literature and encourages the expression and discussion of opinions in a welcoming environment. This course is appropriate for all students in need of preparation for high school literary studies. (This course is a complement to American History)

Monthly Tuition: \$45

Materials Fee: \$10

Time: 8:30 – 9:30 am**(High School Level)****Beginning High School Lit.**

Instructor: Jaree DeMetrotion

972-569-7437

MrsDeMetrotion.CATN@gmail.com

Open to students in the 9th and 10th grades

Beginning High School Literature provides a broad experience to a variety of classic books for young high school students and transitions students into analysis of literary concepts and themes through essays and tests. This transition takes place with classic books like *Jane Eyre, Romeo and Juliet, Oliver Twist*, and several other classic books. While preparing students for the academic rigors of high school, this course remains strongly personal and engaging in its approach to literature and encourages the expression and discussion of opinions in a welcoming environment. This course is appropriate for all students in need of preparation for upper level high school literary studies.

Monthly Tuition: \$45

Materials Fee: \$10

Time: 9:30 – 10:30 am

American Literature

Instructor: Rhonda Helmreich

972 -762-8982

MrsHelmreich.CATN@gmail.com

Prerequisite: Beginning HS Lit or permission from the teacher. This class introduces students to the richness of American Literature reflecting the unique dynamism of our culture and history as exemplified in the rollicking humor of Twain, the moral consciousness of Hawthorne's, *The Scarlet Letter*, and the simple beauty of rural life admixed with universal facets of the human condition from the play "*Our Town*." The basics of worldview thinking are established through literature studies, from the transcendentalism of *Walden Pond* to the naturalism of *Moby Dick*. Invigorating class discussion and in-depth literary analysis develops student's critical thinking skills. Writing assignments offer opportunities for logical assessment of theme and characterization, along with logical argument on the more profound meaning and import of the story. Uses many books from Sonlight 400 (This course is a complement to American Government.)

Monthly Tuition: \$45

Time: 8:00 – 9:30 am

20th Century Literature

Instructor: Rhonda Helmreich

972 -762-8982

MrsHelmreich.CATN@gmail.com

Prerequisite: American Literature or permission from the teacher. This course examines the mindset of the 20th century through modern classics like *The Old Man and the Sea*, *The Great Gatsby*, and *The Metamorphosis*. A firm foundation of the Christian worldview is established using *Mere Christianity* empowering students to formulate a personal statement of Christianity and the theistic worldview. Anchored in the bedrock of theism, students will then explore and analyze the fundamental worldviews displayed in 20th century literature utilizing the worldviews outlined in James Sire's, *The Universe Next Door*. Literary analysis of themes, characters, plot, historical and social context, symbolism, and style enables students to compare, judge, and evaluate the philosophies presented in each novel. Writing assignments focus on the logical evaluation of the worldview presented in the novel compared with a biblical worldview. Book choices are from Sonlight 300. (This course is a complement to 20th Century History.) **This class or Understanding the Times (Advanced Worldviews) is required for all students graduating with CATN.**

Monthly Tuition: \$45

Materials Fee: \$20

Time: 11:30 – 1:00 pm

British Literature

Instructor: Rhonda Helmreich

972 -762-8982

MrsHelmreich.CATN@gmail.com

Prerequisite: 20th Century Literature or permission from the teacher. This class introduces students to the full breadth and beauty of British Literature. Studying masterpieces like *Paradise Lost*, *Beowulf*, *Tale of Two Cities*, *Hamlet*, and several other classics, completes the foundation for university-level study and life. Rhetoric-level literary analysis skills deepen as the students evaluate an author's message compared with a biblical worldview. Students participate in stimulating class discussions and write essays that focus on literary analysis at an advanced level. Also, individual book projects encourage students to interact with a piece of literature using their unique gifts, interests and talents. Many of the novels studied are Advanced Placement level. Uses many books from Sonlight's "Survey of British Literature" 530

Monthly Tuition: \$45

Materials Fee: \$20

Time: 9:30-10:30 am

ECONOMICS, HISTORY & WORLD VIEWS

American History

Instructor: Larry Walsted

972-793-3391

MrWalsted.CATN@gmail.com

Open to students in the 8th - 9th grades. A survey of American History using Joy Hakim's award winning series "A History of US". This class will take a balanced approach to points made in this series. Additionally, students read several historical fiction and biographies. Using these tools, we will focus on key events and people, and seek to understand how our country was established and developed. This class will help students appreciate our heritage as well as have a better understanding of our culture and world today. (This course is a complement to either the Intro or Beginning High School Literature class.) **Estimated homework time: 2-4 hours/week - depending on how quickly students read.**

Monthly Tuition: \$50

Materials Fee: \$30

Time: 9:30 – 10:30 am

20th Century World History

Instructor: Keith Gibson

972-974-3002

MrGibson.CATN@gmail.com

Open to students in the 10th – 12th grades. A high school level survey of 20th century world history using some core books from Sonlight's 20th Century World History core. Unique in all of human History, the 20th century is the first to be documented, not just in word, but also in images. This period saw unprecedented change in

many areas of our lives including the way we travel, communicate, entertain, and resolve conflict. By first reviewing the 19th century, focusing on the 20th century and into the beginning of the 21st century, we see the formation and basis of conflicts and philosophies that still greatly affect our world today. Resources used include 2 core books covering events and images of the 20th century, biographies and historical fiction, movies, eyewitness interviews, and film clips from the various time periods. (This course is a complement to 20th Century Literature.)

Monthly Tuition: \$45

Materials Fee: \$15

Time: 10:30 -11:30 am

American Government

Instructor: Jane Fuller

972-849-9388

MrsFuller.CATN@gmail.com

Open to students in the 10th-12th grades. This course offers an in-depth study of American civil government. Students will learn the "hows" and "whys" the government works, with emphasis on the merits of a limited government. Through critical analysis, the course examines historical and social current events and their impact on understanding of the Constitution. Class time will be spent discussing current events, learning how to debate/defend our personal views, and discussing how the government impacts us on a daily basis. This program follows much of the Sonlight Curriculum: American Government/Civics 400 History. (This course is a complement to American Literature)

Monthly Tuition: \$45

Materials Fee: \$25

Time: 10:30 – 11:30 am

Economics/Personal Finance

Instructor: Larry Walsted

972-793-3391

MrWalsted.CATN@gmail.com

Open to students in the 11th and 12th grades.

The homework is very minimal and averages approximately 1-1.5 hours a week.

This class blends together traditional economics along with the most crucial part of economics, the personal finance equation, using an exciting Dave Ramsey program designed specifically for high school students.

Economics: focuses on a practical understanding of our economy, covering both micro and macroeconomic principles – including supply and demand and how our lives are affected by government, business and banking practices.

Text: *Economics – 2nd Edition.*

Personal Finance: Effectively teaches students the practical applications of personal finance, using methods that are both entertaining and engaging, building a solid foundation on which to build their financial future that they will use daily. This is a new Dave Ramsey curriculum specifically designed for students in a classroom setting.

Major topics covered include:

1. Introduction to Personal Finances
2. Savings
3. Budgeting
4. Debt
5. Life after High School
6. Consumer Awareness (class description continues on the next page)
7. Bargain Shopping
8. Investing and Retirement
9. Insurance
10. Money and Relationships
11. Careers and Taxes
12. Giving

This class will mold the financial future of students. They will be empowered, equipped and entertained while building confidence in their own financial decision-making abilities. *The Personal Finance student workbook will be provided.*

Monthly Tuition: \$70

Materials Fee \$40

Time: 11:30-1:00pm

Worldview Introduction – Lightbearers Instructor: Bob Jennerich

201-264-2098

MrJennerich.CATN@gmail.com

Open to students in the 9th – 10th grades. It is recommended to take this class before upper level high school classes. We now live in a post-Christian and a post-Truth culture. More than ever, the next generation of Christians need to understand the truth of God's Word and how it applies to all areas of life. Most messages in society do not carry a Christian worldview. Why is this? How can we discern truth from deception? Whether sitting in a classroom setting or watching a movie with friends this class will be highly relevant to today's young person and the world they live in. Lightbearers is a program written by Summit Ministries that is

designed to help students clearly understand the tenets of the Biblical worldview, and how those tenants compare to alternative worldviews in today's culture. Students will learn how to apply their Christian faith to every area of life: theology, philosophy, ethics, biology, sociology, psychology, law, politics, economics, and History. Some of the major worldviews covered include: transcendentalism, atheism, secularism / naturalism, postmodernism and deism. Associated issues such as ethics, abortion, apologetics, same-sex marriage, evolution, homosexuality and moral relativism will be discussed. Current events will be a frequent topic of group discussion. Students are responsible for purchasing their own books: *The Lightbearers Student Workbook*, 3rd Edition (\$19.95 at last check) and *How To Be Your Own Selfish Pig* by Susan Schaeffer Macaulay (\$9.95 at last check). Both can be purchased at summit.org. **Estimated homework time: 1-3 hours/week.**

Monthly Tuition: \$45

Materials Fee: \$25

Time: 8:30 – 9:30 am or 11:30 – 12:30 pm

Worldview Advanced - UTT
MrJennerich.CATN@gmail.com

Instructor: Bob Jennerich

201-264-2098

*Recommended for students in 11-12th grades. Understanding the Times is a digital discussion-driven worldview course designed by Summit Ministries to equip students to become champions of the Christian faith - before heading off to any university, and/or the workforce. The writers of the program believe that those who are using this curriculum are playing a major strategic role in equipping the next generation of Christian men and women. The curriculum brings a host of Christian worldview and apologetic ideas into focus. It is designed to help students understand the system of belief of the Christian worldview and how it compares with the beliefs of other leading worldviews such as Islam, Secular Humanism, Marxism, New Spirituality, and Postmodernism. We will cover a host of hot topics in this class. Current events will also be a frequent topic of group discussion in the classroom. Students are responsible for purchasing their own books: *Understanding the Times: A Survey of Competing Worldviews* and the associated workbook. Both can be purchased at summit.org. **This class or 20th Century Lit is required for all students graduating with CATN.***

Monthly Tuition: \$45

Materials Fee: \$25

Time: 10:30 – 11:30 am

SPEECH and HUMANITIES

Speech and Communication
MrsPfeifer.CATN@gmail.com

Instructor: Lisa Pfeifer

214-418-1126

Recommended for 10th-12th grades. Students will learn essential communication skills by studying interpersonal communication, group communication, and conflict management. In-class assignments will help reinforce fundamental principles of speech and communication. Additionally, students will be required to prepare different types of speeches and present them to the class. Group presentations, where students collaborate with others, will also be assigned.

Monthly Tuition: \$45

Materials Fee: \$10

Time: 1:30 – 2:30 pm

GEOGRAPHY

Geography
MrsGibson.CATN@gmail.com

Instructor: Leigh Gibson

972-974-1177

Open to students in the 9th – 12th grades. This course involves learning all aspects of Cultural Geography. Continent by continent, we will tour the nations and learn traditional geographical knowledge including countries, river systems, mountain ranges, bodies of water, and other important landmarks. The students will learn about the belief systems and heritage of the people groups living in the areas studied, in addition to the political boundaries, economic conditions, and systems of governance of the nations. This course caters to all learning styles through the creative use of games, drawing, coloring, videos, mnemonics, maps, pictography, and review. The students will gain confidence in knowing and understanding this amazing world that God created. During the year, the student will give oral presentations, enjoy international cuisine, hear missionary stories, and have an awareness of current events around the world.

The primary text for this class is *Cultural Geography 4th Ed.*, BJU Press along with the activity book.

It is recommended to take this course either prior to or during the study of 20th Century World History.

Monthly Tuition: \$45

Materials Fee: \$20

Time: 9:30 – 10:30 am or 11:30 – 12:30 pm

MATH

PreAlgebra

Instructor: Cindy Moser

214-557-3102

MrsMoser.CATN@gmail.com

Prerequisite: None, taking placement test from Math-U-See website recommended. This class covers negative numbers, order of operations, solving for the unknown, and other topics listed on the Math-U-See website.

Text: Math U See Pre-Algebra Student Workbook & Test Booklet

Monthly Tuition: \$40

Materials Fee: \$20

Time: 1:30 - 3:00pm

Algebra 0.5

Instructor: Lori Taylor

214-870-2242

MrsTaylor.CATN@gmail.com

Course Description: This course serves as a transition between Pre-Algebra and Algebra as students solidify prealgebra skills while learning to solve math problems analytically and learn the elementary concepts of algebra. The first half of the course focuses on learning the algebraic process to build a strong foundation and fluency in prealgebra mathematics. The algebraic process is also applied as the course introduces geometry and discrete mathematics. Sixty percent of the lessons in Saxon Algebra 1/2 are covered in the first half of the academic year without a calculator. The remaining lessons, which focus on an introduction to algebra, are covered in the second half. The curriculum is supplemented with worksheets to provide singular focus and practice on word problem solving skills, real number properties, linear equations, linear graphs, and polynomials. Worksheets are introduced after lesson sixty. Other topics include prime and composite numbers; fractions and decimals; order of operations, exponents, roots, ratios, proportions, probability, unit conversions, Pythagorean Theorem, and more. Saxon utilizes an incremental approach to math which introduces new concepts in small steps while reviewing previously learned material. Online study/help sessions are available as needed.

Text: Saxon Algebra 1/2, 3rd edition (Students should purchase the textbook and the solutions manual.)

Monthly Tuition: \$55 Materials Fee: \$20

Time: 1:30 – 3:00 pm

Math Foundations/Individualized Instruction

Instructor: Jon Motter

972-897-9490

MrMotter.CATN@gmail.com

Open to students in the 10th – 12th grades. Some students experience challenges mastering critical mathematical concepts that are essential to success with higher-level mathematics. This course is intended to review and reinforce key mathematical skills so that students can successfully pursue higher-level STEM-related classes. Specifically, students will review subjects such as arithmetic calculation, measurements, geometry, fractions, ratios, probability, and statistics. Moreover, students will review concepts such as the metric system, repeating decimals, scientific notation, Pi, graphing inequalities, and the slope intercept form of linear equations. In addition, major mathematical theories, such as the Pythagorean theorem, will be reviewed. Finally, students will apply these concepts to SAT-type problems so that they can successfully integrate concepts with mathematics test questions in a variety of formats. A graphing calculator (TI-84 or higher) is required as part of the course. We will have two assigned textbooks for the class: (1) *Saxon Math Homeschool 8/7, 3rd Edition* (students should purchase both the textbook and the solutions manual); and (2) *Kaplan SAT Test Preparation 7th Edition*.

Monthly Tuition: TBD

Time: TBD

Algebra 1

Instructor: Lori Taylor

214-870-2242

MrsTaylor.CATN@gmail.com

Prerequisite: Completion of a Pre-Algebra course with a grade of 'B' or better.

Course description: This course covers the topics typically covered in a High School Algebra 1 course. Following the outline of Foerster's Algebra 1 textbook, the course begins by applying the basic math operations to signed numbers, fractions, and expressions with one variable while learning the basic properties of math. Once these basic properties are mastered, the course then continues with polynomials, quadratic equations, linear equations, graphing, data/probability, radical algebraic expressions, exponents, scientific notation, inequalities, and functions. Foerster's Algebra 1 is comprehensive in scope and is highly rated for its clarity and logical thorough progression of math concepts.

This course includes students notes for each class. A weekly homework worksheet supplements this course to review and solidify concepts previously learned and to introduce new material in smaller steps. Applicable SAT and ACT like questions are also included on the weekly worksheet. Additional online study/help sessions are scheduled as needed.

Text: Foerster Algebra 1, Classics Edition (Algebra 1: Expressions, Equations, and Applications), Paul A. Foerster, Prentice-Hall

Monthly Tuition: \$60 Materials Fee: \$30

Time: 8:00 – 9:30 am

GeometryInstructor: Michelle Price

214-507-9549

MrsPrice.CATN@gmail.com

Prerequisite: Completion of Algebra 1 with a grade of 'B' or better.

Course Description: This class features a proof-based approach to geometry. We will cover lines, angles, direct and indirect proofs, congruence, inequalities, parallel lines, quadrilaterals, transformations, area, similarity, triangles, circles, concurrence theorems, and more.

Text: Geometry: Seeing, Doing, Understanding, 3rd Edition by Harold R. Jacobs.

Monthly Tuition: \$60

Materials Fee \$15

Time: 11:30 - 1pm**Algebra 2**Instructor: Michelle Price

214-507-9549

MrsPrice.CATN@gmail.com

Prerequisite: Completion of Algebra 1 with a grade of 'B' or better and preferably Geometry.

Course Description: This course will cover the topics typically covered in a High School Algebra 2 course. Designed to prepare students for pre-calculus and college level math, this text will develop and illustrate the algebra skills in the context of functions. The applications include mathematical modeling of real-world situations. The topics covered in this course include functions and relations, systems of linear equations and inequalities, quadratic functions, higher degree polynomials, complex numbers, exponential and logarithmic functions, rational and irrational algebraic functions, and more. A Home Study Companion Flash Drive is available which is a video instruction of each lesson and detailed solutions of approximately half of the problems in the text. A graphing calculator (TI-84 or higher) is required as part of this course.

Text: Paul A. Foerster's Algebra and Trigonometry: Functions and Applications

Monthly Tuition: \$60

Materials Fee:\$20

Time: 1:30 - 3pm**Pre-Calculus**Instructor: Jon Motter

972-897-9490

MrMotter.CATN@gmail.com

Prerequisite: Successful completion of Algebra 2 and Geometry.

Course Description: Entry to the Pre-Calculus course follows successful completion of Algebra 2 and Geometry. Its purpose is to prepare the student for college Calculus and related STEM classes. The course provides in-depth coverage of trigonometry, logarithms, analytic geometry, and upper-level algebraic concepts. Intermediate algebraic concepts will be reviewed, and related to lessons about functions, matrices, and statistics. A graphing calculator (TI-84 or higher) is required as part of the course. *Saxon Advanced Math, 2nd Edition* is the assigned textbook for this course. Students should purchase both the textbook and the solutions manual for this course.

Monthly Tuition: \$60

Materials Fee: \$20

Time: 1:30 – 3:00pm**Calculus**Instructor: Jon Motter

972-897-9490

MrMotter.CATN@gmail.com

Prerequisite: Successful completion of Pre-Calculus.

Course Description: Entry to the Calculus course follows successful completion of Pre-Calculus. Its purpose is to prepare the student for college Calculus, as well as other higher level math courses. The course provides a condensed summary of key algebra, trigonometry and analytic geometry concepts. The main focus of the class is the exploration of limits, functions, differentiation, and integration. Theoretical concepts are applied to physical situations regarding area and volume. A graphing calculator (TI-84 or higher) is required as part of the course. *Saxon Calculus, 2nd Edition* is the assigned textbook for this course. Students should purchase both the textbook and the solutions manual for this course.

Monthly Tuition: \$60

Materials Fee: \$20

Time: 11:30 – 1:00pm

Human Anatomy and Physiology

Instructor: Becky Wilson

972-839-0941

MrsWilson.CATN@gmail.com

Prerequisite: For students in the eleventh grade or higher who have completed chemistry with an average of "B" or above or tenth graders who have completed the above requirements with approval from the instructor. The course covers in-depth human anatomy and physiology with a focus on the integumentary, skeletal, muscle, nervous, endocrine, circulatory, lymphatic, digestive, respiratory, urinary, and reproductive systems. Lab work consists of microscopic experiments with prepared slides of human tissue. Dissection work includes sheep's eye, heart, kidney and brain, and a fetal pig.

Monthly Tuition: \$60 Materials Fee: Varies from \$60 - \$85 (See instructor for fee chart.)

Time: 8 – 9:30am

Physics

Instructor: Larry Walsted

972-793-3391

MrWalsted.CATN@gmail.com

Prerequisite: This college-prep physics course is designed for the student who has completed Algebra 1 and Geometry – Open to students in the 10th -12th grades.

We make Physics fun! This course covers aspects of motion, free fall, Newton's Laws, work and energy, momentum, periodic motion, geometric optics, electrical potential, and more. Approximately half of this class is math, while the other half is related to physics concepts, with dedicated time in class to perform the experiments in the curriculum.

Textbook and the Equipment to perform all experiments are included in the monthly tuition.

Monthly Tuition: \$70

Materials Fee: \$40

Time: 8 – 9:30 am

ROBOTICS

Robotics 101

Instructor: Lundy Taylor

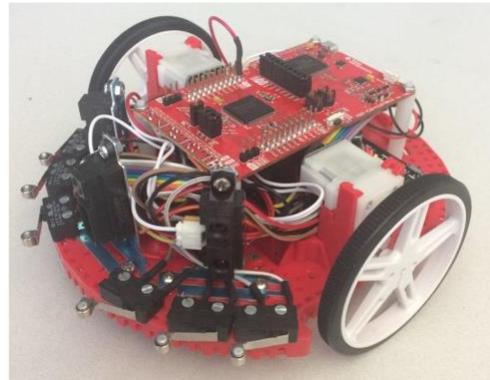
214-870-2293

MrTaylorCATN@gmail.com

Prerequisite: For high school students in grades 10-12 with the completion of Algebra 1

Course Description: Robotics 101 is an introductory hands-on, project-based course in robotics and programming. The course has two main objectives: teaching foundational skills that apply elementary mathematics to real world problem solving and introduces engineering design skills in a fun and learning through self-discovery environment.

Engineering design has been called rigorous creativity. Engineering design is a set of skills that are applied to solve a complex problem, which highlights the 4 big ideas of this course or the 4C's: critical thinking, creativity, collaboration and communication. Once mastered students can transfer these skills to any job or career. For each project students will be required to present their design efforts to the class and discuss what worked and what didn't, lessons learned, and how to manage the creative process in a time constrained environment.



There are at least two platforms that the students will be working with. One is mbot by MakerMedia and TIRSLK by Texas Instruments. As mentioned previously, this is a project-based course. One such project is balloon tag where the students program their mbots to pop an opponent's balloon while protecting their own. The programming language is Python but students will start with a graphical front-end so that no programming experience is required. Mbots and other robotic platforms are leased at the beginning of the year or as introduced during the course. Students will need a laptop to program the robots with and there is software that needs to be loaded.

Homework is the current project. Grading is straightforward; it either works or it doesn't. Written and oral presentations will be given a formal assessment that will highlight what skills the student is strong at and what ones need additional attention. Note this is an elective but it still constitutes a lot of work and hours. Project based courses are like that, but the benefits of directed self-discovery are worth it. However, parents need to weigh that against the student's academic program.

Monthly Tuition: \$70

Materials Fee \$100

Time: 1:30 – 3:00 pm
