2020 AIMS COURSE CATALOG

3D PRINTING AND DESIGN
In this course, students will model the workflow of industrial design and progress from 3D Computer Aided Design software to a 3D physical model. Models will be created using a 3D printer. Students will get to keep their model. **Students will need access to a valid email address and should create an account with Onshape.com prior to attendance.**
Instructor: Phillip Z. Brewer
Offered: Week 1, Week 2, and Week 3
Period: A
Room: Library

ACT PREP
High school students who are seeking admission to colleges and universities upon high school graduation take the ACT test. You can prepare with a professional tutor in class! We practice the sections and learn strategies. A lot of student's scores have increased after taking my class.
Instructor: Kevin Dolbeare
Offered: Week 1, Week 2, and Week 3
Period: A
Room: Media Room

A SHERLOCK MURDER MYSTERY
Interested in learning about Sherlock Holmes while playing murder mystery games in class? Join us for a course on the origins of this famous detective where we will delve into Sir Arthur Conan Doyle's original stories, watch modern film adaptations, and solve mysteries right here at AIMS. Find out if you are the villain, the detective, or the victim in this story.
Instructor: Doris Frye
Offered: Week 1, Week 2, and Week 3
Period: C
Room: H205

A SOCIAL HISTORY OF ROCK & ROLL
From Elvis to Eminem, this course will trace the history of Rock and Roll in relation to the cultural and social history of the United States from the 1950s to the present. This course will allow students to research and give a presentation on their favorite Rock or Pop subject and explain its musical, cultural, and historical significance.
Maximum 18
Instructor: Derek Barry
Offered: Week 1, Week 2, and Week 3
Period: B
Room: H303

ACTION! FOR MOVIE LOVER'S CLASS
Like movies? Well this is the course for you. In this class, students will learn about movie history and research behind the scenes of some of your favorite movies. Each day, students will research different genres and write, produce, and direct their own short films. The best movie proposal will win a prize at the end of the exciting week. Will you make the "cut"?

Instructor: Rodney Adams
Offered: Week 1, Week 2, and Week 3
Period: A
Room: H103

AIMS GOT TALENT
Do you sing, play an instrument, dance, do stand-up, rap or freestyle? If you said yes to any of these or if you have another talent you would like to share, this course gives students the opportunity to participate in a friendly competition. Students (contestants) plan, rehearse, and collaborate with each other, perfecting their acts and talents for an end of the course "talent show" that will crown the most talented AIMS student.
Instructor: Victor Castro
Offered: Week 1, Week 2, and Week 3
Period: A
Room: H304

ALGEBRA REVIEW
This course is designed for students who have **completed** Algebra I. Students will review concepts such as solving equations and inequalities, order of operations, properties of exponents, and linear functions, through the use of interactive activities and fun math games.
Instructor: Meoshe Williams
Offered: Week 1, Week 2, and Week 3
Period: A
Room: S305

ALL ABOUT ANIMALS (TWO-PERIOD CLASS)
Do you love learning about animals? Do you have an interest to work in the field of zoology one day? Perhaps you want to be a veterinarian or even a wildlife biologist. If so, this course is for you. Students will explore the different classes of organisms within the animal kingdom, have hands-on experience dissecting organisms, including invertebrate and vertebrate species, handle preserved specimens, and explore how these organisms compare to one another anatomically. Learn about animal behavior, animal adaptations, and their interactions in the environment. Students will observe live animals in the classroom, visit an animal rehabilitation center, and take a trip to a local animal clinic to have a behind-the-scenes tour and speak to the veterinarians.
Instructor: Heather Normand
Offered: Week 1, Week 2, and Week 3
Period: A and B
Room: S405

ALL THINGS BROADWAY
Love Musical theatre but want to know more about it? You're one lucky person, because this is the class for you! In this class, we will review a handful of the best Broadway shows to ever hit the stage. The students will learn to identify the themes, spectacles, the actors acting, and script interpretation. Remember there is no way like BROADWAY!
Instructor: Victor Castro
Offered: Week 1, Week 2, and Week 3
Period: B
Room: H304

APPS FOR ANDROID DEVICES
Android devices account for an ever-growing percentage of the smartphone and tablet market. In this course, students will see how to use an IDE to create their own apps that can run on these devices. Students will use an emulator of an Android device that will run on Windows, which allows students to view the apps to explore the basic programming principles behind the app.
Instructor: Keith Lynn
Offered: Week 1, Week 2, and Week 3
Period: A
Room: S206

ARCHERY FUNDAMENTALS
This is a beginner's archery course and requires no prior experience. You will learn the fundamentals of archery using a compound bow and bullseye target. You'll learn proper posture, proper bow handling, and tips on how to increase accuracy and consistency. Class notes: Closed toe shoes must be worn. Hair must be secured back and away from the face. All equipment is provided. Safety is our primary concern. One safety violation or repeated inability to follow instructions will result in immediate removal from the class and placement in an alternate class.
Instructor: Candace Howard
Offered: Week 1, Week 2, and Week 3
Period: A, B, and C
Room: Assemble in the Gym. Archery held on the outside court

ART AROUND THE WORLD
Take a journey around the world and explore art from various cultures. Class experiences will include learning music, practicing cultural dance forms, viewing films, discovering visual artwork, and tasting culinary treats from around the world. Don't miss this awesome opportunity to explore the amazing art from across the globe.
Instructor: Anna Marzelle
Offered: Week 2, and Week 3
Period: A
Room: Auditorium

ARTS AND CRAFTS
Let's get creative! Come join in on the fun and be crafty. Participate in canvas activities, bowl making, and much more. Students are asked to wear appropriate clothing as the coursework can get messy.
Instructor: Joyce Boatman and Alexandria Howard
Offered: Week 1 (Joyce Boatman), Week 2 (Joyce Boatman), and Week 3 (Alexandria Howard)
Period: B
Room: Coffee House

ART SECRETS OF THE RENAISSANCE MASTERS
Learn the surprisingly simple geometric techniques used by master artists and artisans throughout history to produce beautiful drawings that require no special math or art background to produce! Projects include Celtic Knotwork, Moroccan tiling patterns, 2- and 3-point Perspective drawings, and Tessellations. Instructor holds degrees in both mathematics and the fine arts, as well as a teaching certificate in geometric design.
Instructor: Sarah Brewer
Offered: Week 1 and Week 2
Period: A
Room: S201

BASIC CHEMISTRY OF THE FOOD WE EAT

Ever wondered why you can't un-boil an egg? Or how those holes get into your bread? Or what that gross blue stuff is that your parents put on salad? Students in this class will get to discover the secret world of food by learning how different foods taste, smell, and feed your brain. Topics in Biology and Chemistry will be included in a fun, interactive environment.

Instructor: Dr. James Njenge're

Offered: Week 1, Week 2, and Week 3

Period: C

Room: S302

BASIC MATH CONCEPTS

Review middle school math concepts, such as integer (positive and negative numbers) operations, fractions, decimals, percents, ratios and proportions, through a combination of hands-on learning activities and classroom games.

Instructor: Meoshe Williams

Offered: Week 1 and Week 2

Period: B

Room: S305

BASIC GEOMETRY WITH SKETCHPAD AND AUTOGRAPH

The congruent triangles will be analyzed on computers using software like Sketchpad or Autograph. Right triangles, the similarity in right triangles, the Pythagorean Theorem, the coordinate Geometry, the distance formula, and the midpoint formula will be discussed. Furthermore graphing the linear equations and organizing the coordinate Geometry proofs will also be a part of this course.

Instructor: Nasrullah Aziz

Offered: Week 1, Week 2, and Week 3

Period: A

Room: S203

BASKETBALL TRAINING

This AIMS Class is composed of high-energy sessions, focusing on proper mechanics, techniques, and skill development for up and coming basketball players. It includes individual and team drills, incorporating the main components of basketball: dribbling, passing, shooting, defense, and teamwork. It allows each player to build on a solid foundation, along with understanding the basketball rules in order to be a successful basketball player. In addition, each session will normally be concluded by using the campus swimming pool. It will consist of playing basketball in the shallow end of the pool. A swimsuit & towel will be needed.

Instructor: Bill Brouillet

Offered: Week 1, Week 2, and Week 3

Period: B

Room: Gym

BEGINNING TENNIS

Students will develop the basic skills necessary to play a game of tennis. Basic skills taught will include the forehand, backhand, volleys, lobs, the serve, and how to keep score. At the conclusion of the week, students will use their newly acquired skills while participating in a round-robin tournament.

Instructor: Dawn Brouillet

Offered: Week 1, Week 2, and Week 3
Period: A or B
Room: Assemble in the Bedsole Lobby. Tennis held on West Campus.

BIGGER, FASTER, STRONGER
This course is designed to improve overall athletic performance by emphasizing the achievement of any athlete at any level of competition. Each day, there will be an alternation of agility drills combined with strength training and plyometric with speed training specifically designed to improve athletic ability.
Instructor: Mitchell Dorsey and Colby Blount
Offered: Week 1, Week 2, and Week 3
Period: B
Room: B130 (Fitness Room)

BIRD IS THE WORD
Let's go find some birds! This will be a field class where students get to go outside and spend every morning locating and identifying birds. While birding, we will have discussions about bird behavior and bird anatomy, which will help the students in their identifications. There will be field trips to local parks, marshes, and beaches. Students will also learn how to keep a notebook documenting the species they have identified.
Instructor: Karen Palazinni
Offered: Week 2
Period: A
Room: S401

CHEMISTRY AND CRAFTS OF TIE DYE
Tie-dye, long before the 70's, was known as Shibori, a Japanese term that encompasses a wide variety of resist-dyeing techniques. These techniques produce random patterns that are either geometric, loose, free-flowing, or combinations of everything in between. Students will learn the fundamentals of a different crafting techniques and make a variety of handmade projects, many of which will use tie dye applications.
Instructor: Joyce Boatman and Alexandria Howard
Offered: Week 1 (Joyce Boatman), Week 2 (Joyce Boatman), and Week 3 (Alexandria Howard)
Period: C
Room: Coffee House

CODE A MICRO: BIT
Learn how to program a micro: bit, a really cool mini board computer that has LED lights, a radio and Bluetooth antenna, a compass, a temperature sensor, and an accelerometer plus pins for attaching external sensors. Use your imagination to create games and experiments or make a banana beatbox. We'll start with simple projects to display text and icons. Learn to write programs to keep score, play a song, or send secret messages to a friend's micro: bit. You'll be amazed what you can do and control by the end of the week!
Instructor: Deborah Gray
Offered: Week 2 and Week 3
Period: B
Room: S206

CREATIVE PHOTOSHOP
Adobe Photoshop is a graphics editing program developed and published by Adobe Systems Incorporated. In this course, the students will learn the creative exposure within the different mathematically correct exposure digital

shots. We will also consider different approaches to beautify and modify regular picture shots, adding different effects and layers, for example, producing some motion effects in a static shot.
Instructor: Nasrullah Aziz
Offered: Week 1, Week 2, and Week 3
Period: C
Room: S206

CROSSFIT
CrossFit is a workout program centered on performing "functional movements that are constantly varied at high intensity." Students will take the CrossFit concept and apply it to a core strength and conditioning program. The program is designed to develop the whole body through various traditional and nontraditional workouts and exercises. This program will not be a specialized fitness program but a deliberate attempt to optimize physical fitness in each of the fitness domains. This program is meant to be developed and suitable for all ages and physical conditions.
Instructor: Mitchell Dorsey and Colby Blount
Offered: Week 1, Week 2, and Week 3
Period: C
Room: B130 (Fitness Room)

CSI: FUN FORENSICS
This class is designed for students who love forensics and want to learn the science behind the Hollywood hype of CSI. Students will work in teams to collect and analyze evidence from a mock crime scene. Activities include analyzing blood spatter, fingerprinting, DNA extraction, hair and fiber microscopy, crime scene documentation, canine assistance, and much more.
Instructor: Heather Normand
Offered: Week 1, Week 2, and Week 3
Period: C
Room: S405; CSI Lab Room H101

DEBATE
When we feel strongly about something, it can be difficult to calmly argue with someone on the topic. However, staying calm and rational can be the best skill in these instances. Making sure to structure your argument in a logical way is a necessary skill. In this class, we will discuss what debate is, common forms of debate (Lincoln-Douglas and Public Forum), and how to effectively debate with others. Debate is a great way to improve your thinking and hold conversations that actually help change people's minds.
Instructor: Daniel Commander
Offered: Week 1, Week 2, and Week 3
Period: C
Room: B126

DISNEY VS PIXAR
Disney and Pixar have dominated the animated world as well as the childhoods of most Americans. In this class, we are going to dive into just how much power these companies have over us, how we see the world, and the history surrounding these animation houses. During class, we will watch and discuss various Disney/Pixar films to understand how they shape our views and thoughts. We will also engage in a variety of activities ranging from re-imagining the key characters in new mediums (What would a Disney princess do in a video game?), recreate

the painting techniques used in the early days, and battle it out to see which animation house truly wins the animation wars.
Instructor: Doris Frye
Offered: Week 1, Week 2 and Week 3
Period: B
Room: H205

DRONES AND RACECARS
Drones are becoming increasingly popular, not just for war and military purposes, but also for everything from wildlife and atmospheric research to disaster relief and sports photography. We will learn how to go through a pre-flight checklist, learn the controls of a drone, control a quadcopter flight pattern, and even use advanced techniques for an obstacle course. Think driving an RC race car is easy? Learn how to navigate through tough terrain through competition and team activities!
Instructor: Grey Gaillard
Offered: Week 1, Week 2, and Week 3
Period: A or B
Room: Assemble in the Bedsole Lobby; class is held on West Campus

ENVIRONMENTAL DISASTERS
Accidents happen, oftentimes with widespread and long term repercussions, such as Deepwater Horizon, Exxon Valdez, Fukushima Daiichi, and Chernobyl incidents. Students will learn about several types of environmental disasters, historical examples of those types, and engage in laboratory activities to further explore various aspects of those incidents such as environmental conditions, cleanup methods, etc. We will also have a competition where groups of students will create their own, made up environmental "accident" and have to come up with a plan to handle the aftermath.
Instructor: Willie Taldon
Offered: Week 1 and Week 2
Period: C
Room: S301

EXPLORING INNER SPACE: THE TINY WORLD AROUND US
Explore the exotic worlds that are all around you, but too small to see. We will use microscopes to learn about the tiny living and nonliving things that can be found in a wide variety of habitats. Activities will consist of short field trips followed by microscopic study of our collections. Students will journal, sketch, and use a digital microscope to record their findings. We'll have camera lenses to attach to your phones for microphotography.
Instructor: Scott Nelson
Offered: Week 1, Week 2, and Week 3
Period: C
Room: S306

FLAG FOOTBALL
Enjoy learning the fundamentals of football and playing flag football. Sharpen your skills in passing, receiving, and defense in a fun, competitive environment that focuses on fun and sportsmanship. For a change of pace, we will have some time for 'Ultimate Frisbee.' Students will also use the shallow end of the campus pool near the end of class to cool off and recover from football games. Please bring a swimsuit and towel. This class is open to boys and girls.
Instructor: Bill Brouillet

Offered: Week 1, Week 2, and Week 3
Period: A
Room: B130 (Health Room) and West Campus

FUNDAMENTAL CONCEPTS OF PHYSICS
In this course, students will learn basic Physics concepts with hands-on experiments and computer simulations. The extent and applicability of physics concept from everyday activities such as playing, swimming, walking, driving, flying, bodybuilding, rock climbing, to the recent physics such as quantum field theory, fuel of the future, disordered magnetism, high temperature superconductors, supersonic projectile, etc.will be introduced and examined with laboratory exercise.
Instructor: Durga Paudel
Offered: Week 1, Week 2, and Week 3
Period: A
Room: S101

GAME DESIGN WITH UNITY 3D
Learn how to create video games with the industry-standard Unity 3D Game Development Engine. Students will learn to create gaming and simulation environments for multiple platforms (PC, MAC, and Android). Learn to apply custom Java-based script, create CAD-generated game objects, and develop new virtual worlds. **Students will need access to a valid email address and should create an account with Unity.com prior to attendance.**
Instructor: Phillip Z. Brewer
Offered: Week 1, Week 2, and Week 3
Period: B (Week 1- S202), Period C (Weeks 2 and 3-Library)
Room(s): S202 and Library

GENTLE STRETCHING AND RELAXATION
This course will introduce the participants to gentle and effective stretching routines. This slow paced course will focus on developing a safe foundation to learn basic stretches, breathing techniques, meditation, relaxation methods, creative games, and expand the participant's horizons in a supportive and easy-going environment.
Instructor: Angel Jackson
Offered: Week 1, Week 2, and Week 3
Period: A
Room: Gym

GEOLOGY OF MINECRAFT
Can you really make a suit of diamond armor? Can obsidian stop TNT? How does the real world compare to the virtual world created by Mojang's programmers? Students will compare and contrast both the real and virtual worlds both in class and with three field trips. So bring your pickaxe (just kidding, all tools provided) and your best Steve impersonation for a great time.
Instructor: Kevin Dolbeare
Offered: Week 1, Week 2, and Week 3
Period: B
Room: S401

GHOSTBUSTERS OF MOBILE
The Ghostbusters films and cartoons are funny, spooky, and smart. In this course, students will screen the franchise's movies and TV shows while studying the literature, science, and comedy that inspired them. This

includes a critical look into the technological tools that “real” ghost hunters use in their trade. Students will also learn the history of various “haunted” sites around Mobile, Ala.
Instructor: Brian Sayler
Offered: Week 1 and Week 2
Period: A
Room: B208

HANDS-ON GEOMETRY!
Get your “hands-on” in this Geometry course by creating tetrahedron kites, Pythagorean spirals, and robots from 3D figures. Haven’t taken Geometry yet? Don’t worry! You will learn the Geometry concepts needed to complete your projects.
Instructor: Meoshe Williams
Offered: Week 1 and Week 2
Period: C
Room: S305

HOGWARTS LETTER!
Looking for wizards stuck in a Muggle world? If accepted, students will learn about and make different potions and spells, go over transfiguration, and learn about the care of magical creatures. The great game of Quidditch will be played along with the Sorcerer’s Stone Challenge. Will your house win?
Instructor: Cameron Stinson
Offered: Week 1, Week 2, and Week 3
Period: A
Room: B129 (Week 1), H207 (Weeks 2 and 3)

I MEAN BUSINESS!
Students will be exposed to different sectors of a company and see what it takes to run a “business”. Each day the students will learn about Human Resources, Marketing, Finance, and Operations. Students will be engaged in activities that surround the subjects taught. Students will then use what they have learned earlier in the week to create a business proposal. I will act as the CEO of the company and will ultimately choose the best business proposal and that student will receive a prize!
Instructor: Rodney Adams
Offered: Week 1, Week 2, and Week 3
Period: B
Room: H103

IMPROV!
This introductory course to improv is specifically designed for students with no prior experience in acting. In this course, students will participate in “Whose Line Is It Anyway?” style exercises to become more spontaneous and receptive to new ideas in a playful, supportive atmosphere. This course will help students become more comfortable and confident with themselves. Sometimes silly, sometimes outrageous, improv training inspires students to adapt to the unexpected and think outside of the box.
Instructor: Victor Castro
Offered: Week 1, Week 2, and Week 3
Period: C
Room: H304

INTERMEDIATE/ADVANCED ROCKETRY

Interested in Rockets? How about designing and building a rocket from scratch? If you answered yes to these questions, this course if for you! In this course, a National and International Rocketry champion instructor will cover the basics, such as designing and building a model rocket from scratch. The week will conclude with launching rockets we've built into the sky! This course will also cover launch protocols to ensure launch safety and we will discuss National Association of Rocketry (NAR) certification and information about NAR Junior Level I certification. And, if time permits, we will launch a high power rocket!! Class Notes: Students must be in 7th grade or higher; 1st day of class will be instructional lab.

Instructor: Cady Studdard

Offered: Week 1, Week 2, and Week 3

Period: B

Room: S102

JEDI ACADEMY: THE PHILOSOPHY AND ARTISTRY OF STAR WARS

In the AIMS Jedi Academy class, "There is no ignorance; there is knowledge:" Students will examine the philosophies and films George Lucas drew from in creating the Star Wars franchise. "There is no passion; there is serenity:" Students will craft their own foam lightsaber and resist the urge to bonk their fellow classmates in the head. "There is no death; there is the Force:" Students will study and revive the classic expanded universe content that Lucas and Disney have sought to cut from the canon. In short, students will learn about Star Wars while applying the analytical processes of the humanities to appreciate its depth.

Instructor: Cameron Stinson

Offered: Week 1, Week 2, and Week 3

Period: B

Room: B129

JOURNALISM

News reporting is an extremely important part of society. In our technological society, the way we read the news is always changing. For example, a large part of the population gets all of their news from social media. Despite all of this, the basics of journalism have not changed. In this class, students will look at the changing world of news and discuss how to report and research it. In addition, students will work to improve writing skills and learning how our information is presented.

Instructor: Daniel Commander

Offered: Week 1, Week 2, and Week 3

Period: A

Room: B126

LABS OF DOOM

The evil mastermind with a plan to rule or destroy the world is a common theme in literature. Is there real science in the middle of those monologues? We will discuss the possibilities of science gone wrong, from Dr. Frankenstein to the Joker. We will mimic their most dastardly campaigns as best we can in our very own lab of doom! Note: Labs of Doom will be done under safe conditions, so no budding lab assistants will lose an eye or grow a hunchback. Please wear closed toe shoes each day (no flip flops allowed).

Instructor: Kevin Dolbeare

Offered: Week 1, Week 2, and Week 3

Period: C

Room: Both S401 and S402

LAND, SEA, AND AIR: BUILDING CARS, BOATS, AND PLANES...
Learn the latest automobile designs, how boats float, and how planes fly. Not only will we learn the science behind various modes of travel, but we will design, build, and test working models: boats that float (or not!), planes that fly, hot air balloons that float, and rocket cars propelled by air. We will also "dive in"to the story and tragedy of the Titanic; its design, its glory, and why it sank 3 miles to the bottom of the Atlantic Ocean.
Instructor: Glen M. Mutchnick
Offered: Week 1, Week 2, and Week 3
Period: C
Room: S101

LEADERSHIP
This course will actively engage students in the acquisition of information about historical and contemporary theories, concepts, and issues associated with leadership. Students will be exposed to the nature of leadership through presentation of objective material and fun group activities.
Instructor: Rodney Adams
Offered: Week 1, Week 2, and Week 3
Period: C
Room: H103

LIGHT METALS AND VITREOUS ENAMELING **(TWO-PERIOD CLASS)**
This class will introduce basic elements of metalworking and enameling (fusing glass to metals or a substrate). Students will learn sawing, piercing, metal shaping, soldering, annealing, cloisonné, and how to use a kiln and soldering torch. You will make various metal forms and enamel them. The techniques learned in this class can be used for making jewelry or metal sculpture.
Instructor: Orren Kickliter
Offered: Week 1, Week 2, and Week 3
Periods: A and B
Room: Assemble in the Bedsole Lobby. Class held at the Art Studio on West Campus.

MARINE BIOLOGY (**TWO-PERIOD CLASS)**
More than 71 percent of the earth is covered by ocean. What exists in these endless extensions of waters? Oceans are teeming with life. This course will introduce you to the living things that inhabit oceans. You will also get a chance to see and handle these neighbors of ours and study their behavior. Bring your swimsuit for a field trip.
Instructor: Dr. James Njenge're
Offered: Week 1, Week 2, and Week 3
Periods: A and B
Room: S302

MASTER YOUR EMOTIONS THROUGH ART AND MUSIC THERAPY
In this course students will participate in music and art activities. Various art activities will allow students to express their feelings or convey their emotions which may be difficult to put into words. Music Therapy will be used for guided imagery and relaxation as music has been shown to improve one's mood.
Instructor: Lacey Broadus
Offered: Week 1, Week 2, and Week 3
Period: C
Room: H208

MATH MAGIC
There's more to math than numbers. Explore interesting topics in math like imaginary numbers, fractal geometry, sums of infinitely many numbers, and modular arithmetic. In this course, campers will see that math is much deeper than the textbook they are using in school.
Instructor: Mike Fletcher
Offered: Week 1, Week 2, and Week 3
Period: A and C
Room: S205 (Period A) S203 (Period C)

MOBILE HISTORY, THE MAGICAL HISTORY TOUR
This course will explore certain aspects of Mobile's history by visiting selected historical landmarks and museums. Students will also produce a presentation based upon what they learned about the sites, including their own research and analysis. Field trips include the Mobile Museum of History, Fort Conde, The Oakleigh House, Battleship U.S.S. Alabama, and the Duck Boat Tour.
Instructor: Derek V. Barry
Offered: Week 1, Week 2, and Week 3
Period: C
Room: H303

MYTHS AND MONSTERS
Join us to learn about ancient myths from worlds as far ranging as Ancient Greece to Camelot. This class mashes together history, literature and a dash of science as we explore the world of myths. We will watch film adaptations, play games, and create our own mythological monsters and much more.
Instructor: Doris Frye
Offered: Week 2 and Week 3
Period: A
Room: H205

ON BROADWAY!
Learn what it takes to be a star on Broadway. Become the ultimate "triple threat" as you sing, dance, and act your way through scenes in a Broadway show. From "Mary Poppins" to "School of Rock," students will explore a variety of genres in the theater world. Each week will end with a small performance of the selected scenes.
Instructor: Anna Marzelle
Offered: Week 2, and Week 3
Period: B
Room: Auditorium

ONCE UPON A TIME: A MODERN TWIST ON CLASSIC FAIRY TALES
Prince Charming, evil witches, and fairy godmothers are everywhere in pop culture, in television shows, films, video games, and music. In this course, we will explore some of the lesser-known classic fairy tales and consider what our modern world might do to them. In class, aside from discussing the original fairy tales and watching films, students will engage in a variety of fairy tale driven activities. We will play fairy tale games, put the Evil Queen on trial, create twisted tales of our own and more.
Instructor: Doris Frye
Offered: Week 1
Period: A
Room: H205

ORIGAMI: THE ARTFUL MATHEMATICS OF PAPER FOLDING

Origami is an engaging and beautiful, yet calming art form through which we can learn the principles of mathematics by creasing paper rather than writing out calculations. Students will create modular origami polyhedra, deconstruct origami animals to reveal the crease patterns and the underlying mathematical principles governing them, and learn how to tile the plane by creating origami tessellations. No prior folding experience necessary, but experienced folders are welcome and all students will be given projects that challenge them at their own level. Students are welcome to repeat this course or even enroll in two sessions in the same week.

Instructor: Sarah Brewer

Offered: Week 1, Week 2, and Week 3

Periods: Week 1 and Week 2 (B or C) and Week 3 (B only)

Room: S201

PAINTING

This class is for beginners, intermediate, and advanced students who want to study painting. We will perform quick observational drawing exercises and discuss traditional painting techniques followed by modern, Post-Impressionist and Expressionist, and color theory and technique. Please wear appropriate clothing.

Instructor: Orren Kickliter

Offered: Week 1, Week 2, and Week 3

Periods: C

Room: Assemble in the Bedsole Lobby. Class held at the Art Studio on West Campus.

PHOTO EDITING WITH LIGHTROOM CLASSIC

Adobe Lightroom is one the best photo-editing software from Adobe. It is now available as Lightroom Classic. This software offers professional photographers a way to import, organize, and correct everything they shoot. The students in this project will learn to import, organize, apply different methods to edit photos in RAW, or in JPEG.

Instructor: Nasrullah Aziz

Offered: Week 1, Week 2, and Week 3

Period: B

Room: S202

PHUN PHYSICS

In this course, students will examine various concepts in Physics using a hands-on application approach and participate in awesome laboratory experiences; some “shocking,” some very sharp, and some that deal with 1000 degree soldering tools. All will be “PHUN!” Examples of some of the cool laboratory experiences that students will share include discovering the answer to; will a bullet dropped to the floor hit the ground at the same time as a bullet fired horizontally from a gun? Students will also discover the answers using projectile motion models and laboratory experimentation. Students will experience 50,000 volts of static electricity using a Van de Graaff generator. The big project of the week will be building a circuit board using resistors, capacitors, transistors, and at the same time, the students will learn how to solder all the components to the board.

Instructor: Glen M. Mutchnick

Offered: Week 1, Week 2, and Week 3

Period: B

Room: S101

PHYSICS OF NANOMATERIALS

Nano material and engineering is a high demanding industrial field for future material physicist and engineers. Physics of nanomaterial will introduce the basic understanding of nanomaterial and provide hands on computer simulation skills to the future industrial career seeker students. Here, students will learn to simulate new nanomaterials and test material properties (physical, chemical, electrical, and optical). For the computer simulations of new nanomaterials, students will look for applications in nano devices. They will also receive hands-on computer coding skills and visualization skills.

Instructor: Durga Paudel
Offered: Week 1, Week 2, and Week 3
Period: B
Room: S203

PLAN FOR SUCCESS!

What is something most successful people have in common, whether they are engineers, athletes, business professionals or artist? They make the most of their time! This class will give you the keys to success by learning how to maximize your time. You will identify valuable resources that excite, challenge, and inspire as you learn to create a rhythm in your schedule. You will learn how to control your own time, ditch stress, get ahead of the game, and set yourself up for success.

Instructor: Lacey Broadus
Offered: Week 1, Week 2, and Week 3
Period: A
Room: H208

PROGRAMMING WITH RASPBERRY PI

Students will use a Raspberry Pi computer to write programs using the Python programming language. The Raspberry Pi is a fully functional computer that is smaller than a hamburger and costs less than $40. These little computers have lots of built-in software and have input/output ports to get sensory input from the outside world. There is a built-in support for the Python programming language. Students will become familiar with the Raspberry Pi and write introductory programs in Python. Students can bring their own Raspberry Pi computers or use one provided by the instructor.

Instructor: Mike Fletcher
Offered: Week 1, Week 2, and Week 3
Period: B
Room: Library

PUBLIC SPEAKING

In high school, college, and almost every career, speaking in front of others will be a required skill. More than 75% of people say they are scared to give speeches. However, it does not have to be as scary as we like to imagine. In this class, we will talk about how to write a speech, practice it, and present it. This class is great for everyone, especially those who feel intimidated by public speaking or know it will play a major role in their future.

Instructor: Daniel Commander
Offered: Week 1, Week 2, and Week 3
Period: B
Room: B126

QUIZ/SCHOLARS' BOWL PREPAREDNESS

If you want to become the star of your school's trivia team, then this class is for you. Students will learn the structure and rules of Scholars' Bowl, study all of the main trivia subjects, and compete in teams to test their skills. This course is fit both to teach those taking their first steps in trivia competitions, and to challenge advanced students. Students will train both as part of a team and individually in order to become winning scholars in this class.

Instructor: Brian Sayler
Offered: Week 1, Week 2, and Week 3
Period: B
Room: Media Room

ROBOTICS

This class will explore the applications of robotics in the real world. From the spacecraft to the unmanned submersible vehicles, robots can do anything that we create them to do. The students will learn about the basics of building and programming of a robot. They will be divided into teams to build and program a Lego Technic Robot to perform a simple set of tasks, such as delivering supplies over a taped off course, stop on a colored dot, and pick up small objects. As the class progresses, they will move onto the harder tasks that combine elements of the previous challenges. An example would be a scenario in which the students must pick up and deliver supplies to an outpost over a difficult terrain. This will allow students to face real-world problems of Robotics Engineering from start to finish while having fun at the same time.

Instructor: Dr. Jessica Alexander
Offered: Week 1, Week 2, and Week 3
Period: A or B
Room: S106

ROCKETRY

Students will build various designs of model rockets in class!! During this course, students will learn about NASA and rocket design, leading up to their official launch date at the end of the week. Before building and launching model rockets, students will perform real-time engine thrust tests and data collection of various engine types. Each student will electronically launch his/her own rocket to altitudes of up to 1,000 feet!!

Instructor: Glen M. Mutchnick
Offered: Week 1, Week 2, and Week 3
Period: A
Room: S102

SCRATCH THE CAT PROGRAMMING

With Scratch, students can program their own interactive stories, games, and animations. Students will share their creations with others in the online community. Scratch helps young people learn to think creatively, reason systematically, and work collaboratively. Scratch is a project of the MIT Media Lab. It is provided free of charge.

Instructor: Grey Gaillard
Offered: Week 1, Week 2, and Week 3
Period: C
Room: S202

SHAKESPEARE ON THE STAGE

"All the world's a stage…" Shakespeare on Stage offers a brief overview of William Shakespeare's career, from his early sonnets to his late dramatic masterpieces. In lieu of reading full plays, we will primarily screen video

portions of several plays-participants will get to act out a variety of scenes as they develop critical thinking, acting skills, and a comfort zone for this genre.
Instructor: Brian Sayler
Offered: Week 3
Period: C
Room: B208

SOCIAL-KNOW HOW
In this course students will explore skills that will assist them in improving basic social interactions and effective communication. Students will participate in interactive activities that will increase their self-esteem, aid in the development of friendships, stress reduction and conflict resolution.
Instructor: Lacey Broadus
Offered: Week 1, Week 2, and Week 3
Period: B
Room: H208

SO YOU THINK YOU CAN DANCE?
Learn how to dance like stars! Each day students will explore a different style of dance including hip-hop, contemporary, and popular dances from music videos, social media challenges, and more! Whether you are new to dance or a seasoned pro, this class will have you excited to move and dance everywhere you go!
Instructor: Anna Marzelle
Offered: Week 2 and Week 3
Period: C
Room: Auditorium

SPA SCIENCE
Mix it, make it, try it out, and take it home! Students will make Fizzy Bath Bombs, Sweet Lip Smackers, Shake 'Em Up Bath Salts, Yummy Face Masks, and more. Students will become clever spa scientists for the week as they learn about ingredients and how to combine them to make fun (and fabulous!) pampering goodies. Students will also get busy playing around with packaging and naming their concoctions in this spa-chemistry exploration!
Instructor: Joyce Boatman and Alexandria Howard
Offered: Week 1 (Joyce Boatman), Week 2 (Joyce Boatman), and Week 3 Alexandria Howard)
Period: A
Room: Coffee House

STUDYING NATURE-FIELD BIOLOGY **(TWO-PERIOD CLASS)**
Learn about the forests, savannas, streams, and shores of the Alabama Gulf Coast. Students will participate in a series of field trips to various nearby habitats, with the emphasis on nature study and biological investigation. Activities will consist of hiking the maritime forest on Dauphin Island, kayaking the delta of the Gulf of Mexico, bird watching in the bird sanctuary on Dauphin Island, collecting organisms in the salt marshes of Dauphin Island, nature study, visiting an ancient Indian Mound, and using a map and compass. Students will journal their experiences using digital cameras (phones). Some cameras are provided, but students are encouraged to bring their own.
Instructor: Scott Nelson
Offered: Week 1, Week 2, and Week 3
Periods: A and B
Room: S306

SUPERHEROES IN FILM

"It's a bird, it's a plane, it's…." modern film has become dominated by the Superhero. From Superman to the Avengers, the X-Men to Spiderman, Batman to Wonder Woman, superheroes have come to dominate the box office! This course will look at what makes the genre so timeless and appealing, and delve into the complexity of the characters that time and again keep us going back for more. The course will also look at the impact of gender attitudes on the development and popularity of female heroines. Students will also develop their own "perfect superhero" and create a short story for him or her.

Instructor: Ken Boatman
Offered: Week 1
Period: C
Room: B208

SWIMMING POOL GAMES & EXERCISE

Summer in the South is the perfect time to be in the water! However, many may not know that you can combine the enjoyment of being in a pool with getting an awesome workout. Water resistance has been a proven method to bring about body toning and strengthening in a way that puts minimal stress on the joints, thereby greatly reducing the risk of injury! Just as important, to participate in an aqua training class, one does not need to know how to swim. From Aqua Aerobics, to Aqua sports-specific drills, to Aqua flexing which improves flexibility, balance, and joint range of motion, this class will increase one's fitness while adding a high fun level as well!

Instructor: Bill Brouillet
Offered: Week 1, Week 2, and Week 3
Period: C
Room: B129

THE HISTORY OF SOUTHEASTERN CONFERENCE FOOTBALL

This course will explore the history of Southeastern Conference football and how it relates to the history and culture of the South from the Reconstruction era to today. The class will center on video and historical analysis and discussion, and students will get the opportunity to do a presentation on a related topic of interest.

Instructor: Derek Barry
Offered: Week 1, Week 2, and Week 3
Period: A
Room: H303

UNDERWATER ROBOT MISSION

Build an underwater robot – a remotely operated vehicle (ROV) -- to complete an underwater Spanish galleon mission. Students form small ROV companies to build an ROV, mission props, and tools for their mission tasks. They learn to pilot the ROV in the pool to collect sea urchins for scientific research, transplant endangered corals, and recover a cannon and shipwrecked items to identify the Spanish galleon. Other learning topics include buoyancy and ballast concepts and electrical circuits. In addition, students learn about real world ROVs designed for different missions from collecting organisms from under the polar ice cap to exploring the ocean on Jupiter's moon Europa.

Instructor: Deborah Gray
Offered: Week 2 and Week 3
Period: A
Room: B129

UPCYCLING: REUSING AND REPURPOSING

Have you ever been thrift shopping? Enjoy reusing and repurposing items to help the environment? This class will teach the benefits of upcycling. Students will learn how upcycling can benefit the environment. During this class, we will go to local thrift stores and have a competition to see who can create the best project by the end of the week. Students will be given an allowance to use at the thrift store(s) as we learn the benefits of upcycling. At the end of the week, the students will have a "fashion show" to show others the outfits or projects that they created with the things they bought while shopping.

Instructor: Cady Studdard
Offered: Week 1, Week 2, and Week 3
Period: C
Room: S102

VIDEO GAME APPRECIATION

Do you love video games? Of course you do. But how much do you know about what video games were like before you started playing them? In this course, students will play classic video games from the 1980s and 90s on such retro video game consoles such as the NES, Super Nintendo, Sega Master System, Sega Genesis, Turbografx 16, Nintendo 64, and several more. In doing so, they will learn about the history of modern video game franchises and see how technological developments have led to new innovations in gameplay and graphics. Modern gamers will gain a new appreciation for the games of the past.

Instructor: Mitch Frye
Offered: Week 2, and Week 3
Period: B
Room: B208

WEIGHT TRAINING

This class is designed to provide basic instruction techniques and participation in weight training activities. It will include methods to build, improve, and maintain proper muscular fitness. Students will use both free weights and machine weights. It will also involve both knowledge of the equipment and proper safety procedures. Students may use the shallow end of the campus pool to cool off and refresh at the end of class, so please bring a swimsuit and towel.

Instructor: Mitchell Dorsey and Colby Blount
Offered: Week 1, Week 2, and Week 3
Period: A
Room: Weight & Fitness Room

WONDERFUL WORLD OF LEGO

Delve into the extensive world of Lego creation! In this class, students will build castles, race rocket powered cars, and experiment with underwater playsets, all while learning math and science through the physics and geometry of Lego. Most importantly, this class is created with imagination in mind; all students will have complete creative freedom to personalize and design their own works. This class also includes building competitions, with the winners receiving grand prizes of new lego sets. After learning and experimenting with the first four days, the last day of class we will watch the Lego movie and have a free building session for students to show the skills they've learned throughout the week.

Instructor: Willie Taldon
Offered: Week 1, Week 2, and Week 3
Period: A or B
Room: S301