



Upper School Electives: Course Descriptions

Upper School PE

Upper School Physical Education recognizes the continuing dramatic changes in our students' physical and social growth. Students are challenged more physically in endurance, strength, coordination, and agility than in Middle School. The programs and activities focus on the more traditional games of flag football, basketball, volleyball, team handball, and softball. Emphasis is placed on the understanding of rules of play, proper playing form, and game strategy. Sportsmanship, team cooperation, and leadership are also fostered in each activity. The course also emphasizes stimulating exposure to other recreational and life sports, such as vita trails. Students develop a respect for healthy physical activity and recognize it as a necessary part of a healthy lifestyle.

Advanced PE: Strength Training

This course is a continuation of the "Be an 11!" program presented by BiggerFasterStronger, Inc. Students will work to achieve personal greatness by setting goals, tracking progress and coaching each other to reach new heights. Students will learn specialized skills and concepts that lead to confidence and competency in a variety of training movements. Physical activity will include strength training, plyometrics, agility training, and mobility practice.

Advanced PE: Careers in Fitness

Personal Training / Small Group Training is a big business, a \$10 billion-dollar industry. It is a continually evolving industry, one that offers a range of potential career opportunities for students interested in becoming personal trainers and/or group exercise instructors. Careers in the fitness industry offer a flexible work schedule and they allow for a quick entry with a high school diploma and national certification. Learn what it takes to become a personal trainer, the types of education programs available, certifications and occupation outlook as well as the basics to prepare for the certification exam.

Advanced PE: Fitness Concepts

This course is designed to give students the opportunity to learn fitness concepts and conditioning techniques used for obtaining optimal physical fitness. Students will benefit from comprehensive weight training and cardiorespiratory endurance activities. Students will learn the basic fundamentals of strength training, aerobic training and overall fitness training and conditioning. Course includes both lecture and activity sessions. Some examples include walking, running, weight training, bootcamp workouts, Pilates, kickboxing, core strength to name a few. Students will be empowered to make wise choices, meet challenges, and develop positive behaviors as fitness, wellness, and movement activity for a lifetime. Come prepared to workout, feel better, eat right, and make fitness a part of your lifestyle.

Drawing and Painting

Drawing and Painting is an introductory drawing class. Students will develop their skill to see in order to build upon their ability to draw. Students will primarily learn to use graphite and charcoal and create art works from direct observation. They will maintain a sketchbook that will continually track their growth with exercises and assignments specifically designed to engage right brain thinking. Students will also apply these concepts through the medium of painting.

Ceramics and Sculpture

In Ceramics and Sculpture students will learn to make educated decisions regarding form in order to create sculptural works of art. The course will primarily focus on ceramics work. Essential techniques for hand building in ceramics will be taught. Students will also have the opportunity to grow their wheel throwing skills. Additional sculptural

materials such as fibers, wire, and paper maché may be used alone or in conjunction with ceramics work. This course will teach the artistic behaviors necessary to plan and sequence a successful art project.

Darkroom Photography

Students will learn photography basics, shoot photos, and make prints in the darkroom.

Woodworking

Woodworking is a hands-on course in which students learn the physical properties of wood and how those properties inform the design of a practical and attractive product. They learn to make simple drawings from which to build individual projects. The focus is on shop safety, the safe and correct use of hand tools, and some techniques of basic joinery. Students develop a foundation for a lifelong interest in wood craftsmanship and explore creative expression in wood. There is a minimal use of power machinery in this course, as many of the techniques of fine craftsmanship depend on competent knowledge and use of traditional handsaws, planes, chisels, and other hand tools.

Digital Photography 1

Students will learn first-hand how to operate a DSLR camera. We will train our eyes to see the world through a viewfinder and archive fleeting moments of life. Students will understand particular functions that can alter the meaning and create artistic expression in a photograph. Students will organize and manage a library of photographs and be able to edit their photographs to enhance the quality and be ready to print. Students will be introduced to editing programs such as iPhoto, Adobe Photoshop, and Adobe Lightroom CC Classic. Finally, by seeing pictures that have been taken multiple times working in iteration, students will practice problem solving and connecting their expectation with reality

Drama Skills

In this drama course, students explore all aspects of what it takes to produce a play. This includes acting, directing, improvisational work, costume design, set design, and stage management. Classes include acting games as well as brief lessons on the history of theater, television, and film. Students will analyze portions of famous scripts and learn how to “block” short scenes. Students in this course will also have the opportunity to help behind the scenes with the Middle School Drama Production.

Drama Production

This drama elective is an introduction to theatre with an emphasis on basic acting skills through the lens of producing the Spring play. The objective of this course is to give the student a well-rounded theater education through analyzing characters, learning blocking, and performing in front of an audience.

Filmmaking

Students will shoot video, create storyboards, and use iMovie to express themselves through video.

Introduction to Guitar

Introduction to Guitar is a beginner's course of fundamental guitar instruction for students with little or no previous experience with the instrument. The course is a hands-on class that allows each student to have daily access to an acoustic guitar in good, playable condition. Students receive a substantial amount of individual instruction in playing notes, scales, and chords and in reading guitar tablature and strum charts. Students can progress at their own rates and focus on types of music that appeal to them. The emphasis is on contemporary guitar music, not classical guitar. In addition, students will learn to play in groups and have opportunities to try other instruments such as keyboard, percussion, banjo, and bass guitar.

Recording Studio

Students will use GarageBand software to write and record music. Students will have access to a variety of instruments: piano, electronic keyboard, acoustic and electric guitar, bass, banjo, and snare drum. Students will research

fundamental elements of quality recordings and try their hand at applying these skills in a recording studio setting. After recording is complete, it will be time to learn proper editing and mixing techniques. In addition, at the heart of any great recording is a great song. Song writing will play a big part in this course. Students must have some musical experience and be self-directed.

Music Production and Business

Student in this class will go beyond making music and explore the business side of the music industry.

Consenses Art

In ConSenses Art, students will explore our world through the lens of photography, music, paint, dance, and poetry. The course will focus on unique perspectives and the nature of items/people.

Creative Writing

In this class you will explore the art and craft of writing creatively. This means we will mine our imaginations, dreams, memories, and points-of-view to compose original stories, poems, and plays. We will learn how published writers work and select mentor texts to inspire us. Writing creatively can be a bit intimidating, so we will work to ensure a supportive and open-minded environment in the class.

Literary and Arts Magazine

In this class we will learn how to design and publish a beautiful print magazine full of TNCS's art and writing. We will come up with a name for the magazine, gather submissions, learn how to layout content using design software, and much more. This class will introduce you to some of the basics of publishing and design. Students will be encouraged to define their roles and take the lead in decision making come fourth quarter!

Yearbook

Students will be introduced to basic graphic design and page layout as they produce the school's yearbook.

Computer Applications

This course is designed for students who have relatively little experience using their Macbook as an academic tool. Students will learn the basic features of the MS Office suite, learn to organize digital academic materials, and explore the accessibility features that their technology has to offer.

Computer Programming

Introduction to App Development

App Development 1

The programming and app development sequence introduces the students to the world of app development and the basics of Swift and Xcode at a pace commensurate with their experience. Interested students will be placed into a course according to their experience. Students will get practical experience with the tools, techniques, and concepts needed to build a basic iOS app from scratch. At the end of the course, students will build one of two basic iOS apps.

Robotics

The VEX Robotics elective course provides students opportunities to develop skills in engineering, coding and programming, innovation, and collaboration, with the aim of competing in regional VEX robotics demonstrations and tournaments. Students work as a team to design, build, program, and operate a robot. The course emphasizes use of the engineering-design process. Students first identify the important characteristics of the robot to be designed. Then, they ideate, implement, and test ideas to develop the best possible robot design. Some students may choose to “specialize” in robot design, competitive strategy, or coding and programming; however, all students in the class will be expected to participate in all aspects of the program and develop basic skills in designing, building, and programming the robot.

Biotechnology

This course will take an exploratory look into various fields of biotechnology and the careers involved in them. There will be hands on science activities and experiments as well as visits to laboratories, corporations, and businesses involved in scientific fields.

Electrical Engineering

This elective, designed by a TNCS student, will introduce students to the basics of electricity before covering and linking electrical components. Students will learn to solder and build their own projects to use what they've learned.

Model General Assembly

Students will use a model legislature format to explore current issues.

The Story of Rome

This class begins with the mythical story of Romulus and Remus and carries through to the foundation of the Roman Empire. We will analyze the archaeology and art, mythology, the history of the Republic that helped shaped the hill-top city into one of the most formidable empires the world has ever seen. The expulsion of kings, the sacking of cities, the construction of the forum, and the assassination of Caesar will all be covered in our course.

World Religions

Ever wonder how the Buddha reached enlightenment? Or why during religious holidays we eat certain foods? In this course, we will learn about the world's five major religions: Hinduism, Judaism, Buddhism, Christianity, and Islam. We will learn about their cultures, their rituals and practices, their foods, and their traditions. This course will leave you with a better understanding of how each of these faiths has evolved, and its place in our modern world.

Independent Study

An Independent Study elective course is offered to motivated, well-organized high school students with a demonstrated record of success with independent projects. Students pursue well-structured academic projects of personal interest and work with faculty coaches who have an expertise or interest in that area. Examples of possible projects include: National History Day entries, entries for the Virginia Junior Academy of Sciences competition, preparation of a portfolio for art school admission, online courses, and independent writing projects. Students may elect to pursue an Independent Study for a semester or a full year.