



# PROGRAM OF STUDY

Upper School | 2024-25





## OUR MISSION

The New Community School empowers bright, talented students who are challenged by dyslexia and related learning differences. The innovative and research-based college preparatory curriculum uses a customized educational approach to build skills in language and math to foster academic and personal strengths - igniting the passions and gifts of unique minds.

## OUR VISION

The New Community School launches students with the knowledge, skills, and resilience to pursue their passions, navigate the opportunities and challenges of their world, and live their lives with courage, compassion, and purpose.

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# CURRICULUM OVERVIEW

The students who come to The New Community School enter with specific skill or processing deficits. These deficits impact their ability to acquire knowledge and their ability to demonstrate what they know. Standardized testing often reveals deficits in reading, spelling, and math computation skills. Deficits in written expression, organizational skills, and study skills are more difficult to quantify, but are no less crucial for academic success at the secondary level. All the academic departments have built-in structures and strategies that are designed not only to help students compensate for their skill deficits, but to help them develop reliable and effective organizational and study techniques. As students develop the skills needed to succeed in future educational settings, supports and structures are gradually adjusted and students are expected to exercise greater independence.

## **UPPER SCHOOL**

A typical Upper School student's schedule includes classes in English, math, history, science, and Language Fundamentals (LF). Academic and Language Fundamentals classes carry one unit of credit per year. Upper School students have the opportunity to explore elective offerings in a variety of areas including health and wellness, performing and fine arts, and technology.

Each full-credit academic course meets for approximately 140 clock hours and requires a significant amount of out-of-class preparation. The average class size in upper school academic classes is approximately eight to twelve students. Elective and physical education classes may be somewhat larger. Upper school students are required to bring a Mac computer to class each day.

## **EXTRA HELP & STUDY HALL**

A non-credit Extra Help period is provided for all students each day. During the Extra Help period, students may see teachers for help, begin assignments due the next day, or complete tests. Some Upper School students have the option of an additional study hall during the school day, in place of one of their classes.

All academic departments employ similar organizational structures and study skills strategies to help students develop these necessary skills. Teachers of all academic classes post weekly assignment sheets so that students know what their assignments are and can plan their study time. Each assignment sheet is posted on Schoology.

## **TECHNOLOGY VISION STATEMENT**

Technology is a tool that provides added value to teaching and learning. Technology enriches the materials, methods, and assessments our teachers use to inspire young minds, making learning more interactive and engaging. Technology also allows for a more individualized educational experience for each learner.

Furthermore, The New Community School addresses the specific language-related learning differences of its students by selecting technological tools that help students communicate ideas effectively and access materials and information that would be otherwise inaccessible. Technology levels the playing field in communication and helps students overcome the barriers they face in learning and content production. The New Community School provides direct instruction, when necessary, in these technologies and encourages students to see technology, including assistive technology, as a lifelong learning and communication tool.

In order to maximize the value technology adds to teaching and learning, professional development at The New Community School promotes and enables successful technology integration. Every teacher is constantly growing in their technological expertise through school-endorsed professional development. Through constant learning and sharing, the faculty at The New Community School is knowledgeable about new technologies, including assistive technology and the pedagogical uses of artificial intelligence.

## GRADES & ASSESSMENT

The New Community School subscribes to a standards-based learning model. Under this model, a course grade reflects a student's mastery of the stated course objectives as measured on summative assessments. Rubrics or learning scales are utilized to communicate outcomes, guide instruction, and provide feedback. Learning scales demonstrate a continuum of learning. Reassessment at times is necessary, especially when student performance is below proficient, or the teacher believes the original assessment did not accurately match what the student knows and can do. Students who wish to reassess are encouraged to work with their course teacher.

Student progress reports are issued four times a year, at the end of each quarter. Letter grades are given for all courses in grades 9-12 except Learning Skills and Strategies.

Although assessment practices may differ slightly among departments and across grade levels, all teachers share certain beliefs. A brief description of grades as interpreted by our teachers is as follows:

- A 3.5 - 4.0 = **Excelling** - demonstrates in-depth inferences and applications beyond what was taught in class.
- B+ 3.2 - 3.4 = **Advanced Proficient** - applies the concepts, vocabulary, and skills independently
- B 2.7 - 3.1 = **Proficient** - demonstrates understanding of the concepts, vocabulary, and skills consistently and independently
- C+ 2.3 - 2.6 = **Approaching Proficient** - some minor inconsistencies and gaps exist
- C 1.7 - 2.2 = **Developing** - demonstrates basic understanding; omissions, errors, and misconceptions exist
- D+ 1.3 - 1.6 = **Emerging** - ability to identify concepts and skills, needs support to make connections or to use skills
- D 0.6 - 1.2 = **Beginning** - demonstrates limited understanding of the learning outcome, needs instructor assistance in order to complete work
- F 0.5 & below = **Minimal** - demonstrates slight progress on the learning outcome assessed

Letter grades are given for all courses in grades 9-12, with the exception of Learning Skills and Strategies. Grade point average (GPA) is cumulative beginning with ninth grade. The grade point average is the average of grades in all attempted courses. It includes courses taken at other schools, high school level courses (i.e. Algebra I) taken in middle school, as well as dual enrollment courses. A failed course is included in a student's GPA. However, if a student repeats a course only the higher of the two grades is counted. Because most colleges seem to prefer a GPA that is expressed on a four-point scale, we translate our letter grades to a four-point scale.

## SUPPLEMENTAL COURSEWORK

TNCS students often wish to supplement their course of study through coursework offered by an outside provider. In order to receive transfer credit the student must get approval from the Director of the Upper School and the Associate Head of School prior to enrolling in the course.



## ADDING OR DROPPING COURSES

### ADD:

- Year-long courses may not be added after the third week of the school year.
- Semester courses may not be added after the second week of the semester.

### DROP:

- Any year-long course dropped on or before the end of the first quarter will not appear on the high school transcript.
- Any semester course dropped on or before the first Friday in October for first semester courses OR the first Friday in March for second semester courses will not appear on the high school transcript.
- Any year-long courses dropped after the first quarter OR after the first Friday in October for first semester courses or the first Friday in March for second semester courses will result in one of the following:
  - WP = (Withdrawn Passing)
  - WF = (Withdrawn Failing)
  - WM = (Withdraw Medical)
- Year-long courses may not be dropped after the first Friday in March. Semester courses may not be dropped after completion of the first quarter of either semester.

## PORTRAIT OF A TNCS GRADUATE

Meant as a guide for both students and teachers to develop the skills necessary for success in a rapidly changing, increasingly interconnected world, The Portrait of a TNCS Graduate has six main “attributes” we believe will position a successful TNCS graduate for success.



Adapt Effectively



Read Strategically



Engage in Community



Think Innovatively



Communicate Clearly



Pursue Wellness

## POST-GRADUATION PLANNING

During the upper high school years (grades 10-12), the school works with students and their families to help make post-graduation plans. Annual meetings for parents of sophomores, juniors, and seniors provides information about the college search process and the programs that have been effective for our graduates.

Juniors take the PSAT each October. Eligible students may take the SAT during any of the national testing periods. The school administers College Board tests each year following the guidelines established by the Services for Students with Disabilities program, which allows students with documented learning disabilities to take the SAT with individualized accommodations approved by the College Board. In order to qualify for College Board accommodations, students must have up-to-date psychoeducational testing. We recommend that this testing is completed after the student turns 16. The college counselor works with families and teachers to gather the documentation needed to submit the request for accommodations.

Occasionally, students opt to take the ACT in addition to the SAT. The ACT has a separate accommodation process. Students and parents are encouraged to work closely with the Office of College & Career Counseling in order to make sure they can complete the accommodation process in time for the testing date they prefer.

While most (85-90%) graduates go on to college or other post-secondary instruction, some graduates choose to enter the work force directly from high school. TNCS does provide limited vocational training in partnership with WorkForce Alliance. Additionally, the Office of College and Career Counseling works with non-college bound students to identify career interests, personal strengths, and ways to obtain information about workforce certifications and alternative postgraduate learning programs.





## NATIONAL HONOR SOCIETY

In July 2005, the TNCS Chapter of The National Honor Society received its first charter. The object of the chapter is to create an enthusiasm for scholarship, to stimulate a desire to render service, to promote worthy leadership, and to encourage the development of character in students at TNCS.

The criteria for membership are:

- status as a junior or senior,
- attendance at TNCS for at least one semester,
- a cumulative GPA of 3.15 or higher,
- involvement in at least two current extra-curricular activities, and
- exemplary character and citizenship.

During the fourth quarter each year, sophomores and juniors who meet the grade point average requirement as described will be invited to apply and describe their extra-curricular activities. Qualifying activities include clubs, athletic teams, and other significant activities at school, such as the Student Advisory Board, as well as community-based activities like Scouts, youth groups, choir, or outside classes. For purposes of NHS membership, “current” is defined as during the current school year. A member of the chapter shall be expected to serve as an example to others by their attitude, cooperative spirit, and reliability. Serious disciplinary infractions would be indicative of failing to set a good example.

Members are selected by a five-person Faculty Council, named by the Associate Head of School. The Faculty Council meets during the fourth quarter to discuss academically eligible candidates through review of each applicant’s merits with regard to service, character, and leadership. All sophomores and juniors with a cumulative GPA of 3.15 or higher are eligible for consideration. Other members of the faculty may also be consulted as part of this discussion.

Members are expected to maintain a grade point average of at least 3.15 or better and to continue their record of character, service, and leadership. Members who fail to do so may be given a warning or, in the case of flagrant violations, may be dismissed. In lieu of dismissal, the Faculty Council may impose disciplinary sanctions upon a member as deemed appropriate. Violation of the school’s rules of conduct or the Honor Code will result in notification in the form of a written warning, except in the case of flagrant violations of school rules, expulsion, or violation of the law a warning does not have to be given. If a warning is given then a conference may be requested by either party (Faculty Council or student/parent). If a member continues in violation, the member may be dismissed. Decisions of the Faculty Council may be appealed to the Head of School.

The chapter meets regularly and conducts one or more service projects each year. All chapter members are expected to participate. These projects have the following characteristics: they fulfill a need within the school or community, have the support of the school administration and the faculty, are appropriate and educationally defensible, and are well planned, organized, and executed. A faculty advisor, who is appointed by the Head of School, works with the members of the chapter.



## PROGRAM REQUIREMENTS

• English	4 credits
• Mathematics	3 credits (to include Algebra I and Geometry)
• History and Social Studies	3 credits (to include World History, American History 1, and Government)
• Science	3 credits (to include Biology and Chemistry)
• Health and Wellness	1.5 credits (to include 1 semester of Health and US Physical Education)
• Fine and Performing Arts	1 credit
• Career and Technical Education	1 credit (to include Personal Finance and Career Exploration)
<b>Total Needed for Graduation</b>	<b>24 credits</b>

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\*\*All courses taken above the Program Requirements are considered Electives.

## ADDITIONAL REQUIREMENTS FOR GRADUATION

- Students shall successfully complete at least one online course experience.
- Students shall successfully complete 40 hours of community service during their Upper School years.
- Seniors are required to successfully complete a senior speech.

Modifications of these specific requirements may be made by the Head of the School. These modifications may impact a student's college options.

Diplomas are awarded in the spring of each year. Seniors who fail to meet diploma requirements by graduation day may, at the discretion of the Head of School, participate in the graduation ceremony. Typically, should the student complete their required work by July 1, they will receive their diploma at that time. A student who completes diploma requirements after July 1 would receive a diploma the following spring and would be included on the roll of alumni as a member of the class for the year in which the diploma was awarded. Once a student has completed diploma requirements the school will confirm that fact in writing for colleges or employers. Only seniors who are enrolled at the school for the entire senior year may participate in the graduation ceremony. Students must take part in the commencement ceremony in order to be awarded a diploma, unless permission is given by the Head of School.

Upper school students typically carry a course load of 6 to 7 credits per year.

Students are classified according to the following standard:

- In order to be classified as a sophomore, a student must have at least 5 credits.
- In order to be classified as a junior, a student must have at least 10.5 credits.
- In order to be classified as a senior, a student must have at least 17.5 credits.

Credits earned at The New Community School are accepted for transfer by both public and independent schools.



# LANGUAGE FUNDAMENTALS

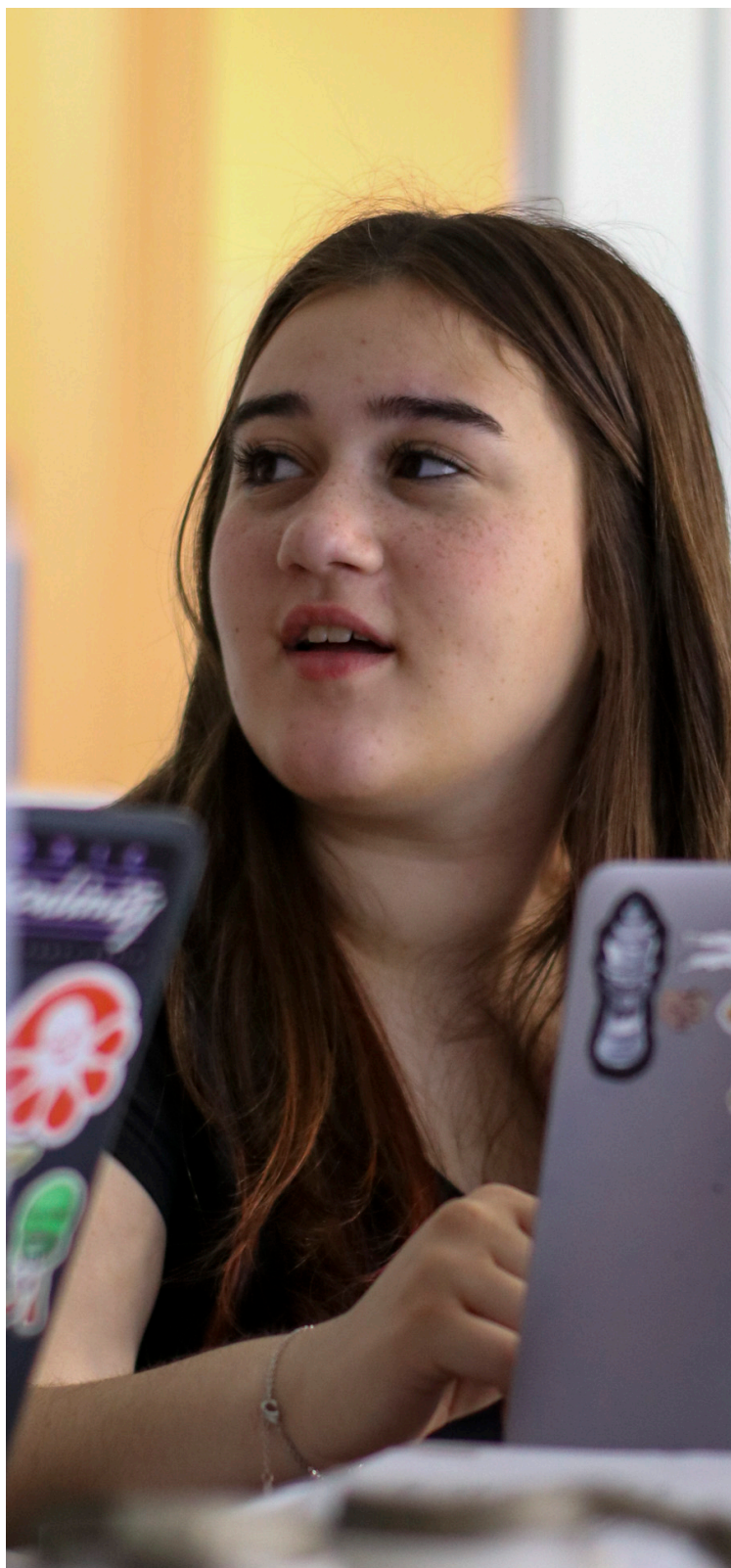
## ACADEMIC RESEARCH AND WRITING

The Academic Research and Writing curriculum is designed to enhance students' ability to conduct research, comprehend and analyze a variety of texts and academic articles while improving their academic writing skills. The course provides students with strategies for reading and analyzing texts critically, identifying key ideas, making connections, and developing arguments based on evidence. Additionally, the course focuses on executive functions, including planning, organization, time management, and self-regulation, to improve students' academic performance.

## LEARNING SKILLS AND STRATEGIES

The broad goal of Upper School Learning Skills and Strategies classes is to increase each student's ability to read strategically, write effectively, and think critically. Skill classes range from remediating basic language skills, focused on improving decoding and encoding words, to teaching reading comprehension, writing, study, and executive functioning strategies. In small groups and pairs, students develop skills while acquiring knowledge of how they learn and an increasing awareness of their individual challenges. Each learns strategies to improve academic performance and foster greater independence. As students become aware of how to leverage their strengths and minimize weaknesses, they are empowered to be effective self-advocates and more confident, resilient, and strategic learners.

Teachers use a diagnostic-prescriptive approach to instruction and structured, systematic, and multi-sensory methods to build skill proficiency. Informed by annual standardized tests and frequent informal assessments, teachers write customized plans which outline goals and objectives for growth in language and learning skills. Regular communication with classroom teachers and individual conferences with students and parents provide each with frequent feedback on student progress.





# ENGLISH

## CREATIVE WRITING

Creative Writing is a semester-long course. Students will experiment with different forms of writing in order to find their voices as writers and storytellers. Students begin with memory—composing quick sketches and vignettes of early memories, and then a longer memoir. Next, students will try their hands at fiction—using many of the same skills as for the memoir, but with the added challenge of developing plot and perspective. Lastly, students will experiment with poetry.

## ENGLISH 9

The ninth-grade English curriculum focuses on structures of academic composition and analysis of literature and other texts. Literature study includes units on short stories and novels. Close reading and annotation strategies are used to enhance comprehension and students' understanding of the writer's craft. Additionally, students study standard literary vocabulary to analyze and evaluate these texts. Articles, speeches, essays, and other works of nonfiction are also read to improve critical thinking and writing skills. The composition component includes the review of basic parts of speech and sentence structures and emphasizes the use of increasingly complex sentences in writing. Students engage in a variety of writing assignments including narrative, descriptive, and persuasive writing.

## ENGLISH 10

The tenth-grade English curriculum develops students' composition proficiency, critical thinking, literary analysis, research skills, and oral communication in a seminar setting. In the literature curriculum, students will read a variety of fiction and non-fiction texts including plays, novels, and numerous short stories by American authors. Students employ a discipline-specific vocabulary to analyze and evaluate texts. In composition, students follow a structured writing process to complete all lengthy assignments including a research paper and a persuasive essay. Additionally, students practice self-evaluation of writing tasks. Throughout the year, students demonstrate increased independence in writing, research, digital communication, and studying. Students will be introduced to the more rigorous academic demands they are likely to encounter as they pursue their education beyond high school.

## ENGLISH 11

The eleventh-grade English curriculum facilitates students' use of literature and other forms of media to explore a variety of 'big questions' that transcend borders and resonate with the universal human condition. Students learn how various cultures and peoples explored these big questions through language and storytelling. By engaging critically with these questions through the course texts, students hone their thinking skills and deepen their empathy for the world. Students will experience different genres and voices as well as approaches to literature, including whole-class texts, literature circles, and independent reading. To increase your proficiency in written and oral communication, as well as research skills, students will engage in a variety of modes of written and spoken expression including narrative, expository, persuasive, and creative assignments. Students will continue to expand their vocabulary and their understanding of what constitutes effective writing, including grammar, usage, and punctuation. Throughout the course, students will use reflection to continue to grow as a more confident and independent learner.

## ENGLISH 12

The twelfth-grade English curriculum strengthens students' composition proficiency, critical thinking, literary analysis, research skills, and oral communication in a seminar setting. In the literature curriculum, students read non-fiction, novels, and dramas. Students also employ a discipline-specific vocabulary to analyze and evaluate texts. In composition, students develop skills further preparing them for first-year college writing courses. Students develop an individually effective writing process. Students refine their ability to self-evaluate their written work. Throughout the year, students practice independence in reading assigned texts and studying. Students are expected to use audio support as needed. In final preparation for college English composition classes, students will learn to transfer their composition skills and understanding into the more rigorous demands they are likely to encounter as they pursue their education beyond high school.

# ENGLISH, continued

## DUAL ENROLLMENT

### ENGLISH 111: COLLEGE COMPOSITION I

Prerequisite: Cumulative GPA of 3.0 or higher and completion of English 11

College Composition I introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics; develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Writing activities will include exposition and argumentation with at least one researched essay. English 111 has been designated as a “writing intensive” course. Students will produce texts that reflect critical thinking and knowledge of writing processes, rhetoric, and digital technologies. College Composition I is one semester in length and counts as 1 credit hour. College credit is also earned through Reynolds Community College.

### ENGLISH 112: COLLEGE COMPOSITION II

Prerequisite: Completion of College Composition I

Composition II builds upon the skills and competencies introduced and developed during Composition I, allowing students the opportunity to apply them to writing and analytical-thinking assessments that increase in length, rigor, and complexity. The course incorporates texts that build thematically on those from the previous semester, while introducing new critical lenses through which these themes are considered.

College Composition II is one semester in length and counts as 1 credit hour. College credit is also earned through Reynolds Community College.





# MATHEMATICS

## ADVANCED PLACEMENT (AP) AB CALCULUS

Prerequisite: Completion of Calculus

AB Calculus is offered to students who have successfully completed Calculus with a demonstrated level of mastery of the foundational concepts of calculus. This course prepares students for the AP AB Calculus Exam over the course of the year. Methods emphasizing technology, real-world applications, and student discovery are covered throughout the curriculum. The major topics of this course are limits, derivatives and applications, integrals and applications, differential equations, and the Fundamental Theorem of Calculus. Students are challenged to study topics through algebraic, numeric, and graphing methods. Students must give explanations both verbally and in writing with precise vocabulary and mathematical symbols. Students will sit for the AP AB Exam in May.

## ALGEBRA I: PART 1

The Algebra I: Part 1 curriculum offers an opportunity to work on algebraic concepts such as integer operations, algebraic expressions, graphing in the coordinate plane, functions, and solving one, two and multi-step equations. Students learn to use tools such as the Desmos graphing calculator to more effectively solve problems and prepare for the second part of Algebra 1. This course allows for deep understanding as well as multiple levels and methods of practice and prepares students for Algebra 1: Part 2.

## ALGEBRA I: PART 2

The Algebra 1: Part 2 curriculum continues to build on prior knowledge of algebraic concepts and completes the standard Algebra 1 course curriculum. Topics include writing and graphing linear equations, the coordinate plane, slope intercept form, polynomial operations, factoring of polynomials, and quadratic equations. Students continue to learn to use tools such as the Desmos graphing calculator in order to enhance their depth of understanding. This course prepares students for Algebra 2.

## ALGEBRA I

The primary focus in Algebra I is instruction on graphing linear equations and problem-solving techniques of various types of equations. Additional topics include operations with integers, systems of equations, operations with polynomials, and factoring. The students will discover how patterns and relationships are incorporated into the real number system.

## ALGEBRA II

Prerequisite: Completion of Algebra I

Topics from Algebra I are expanded and built upon in Algebra II. Topics include solving and graphing linear equations and inequalities, determining equations of lines, matrices, and polynomials. In the second semester, students focus on the study of factoring polynomials, rational expressions, radicals, the quadratic formula, and parabolas. Throughout the year, students develop and practice problem solving skills.

## CALCULUS

Prerequisite: Completion of Pre-Calculus

The major topics covered in Calculus are limits, derivatives, integrals, and the Fundamental Theorem of Calculus. Students investigate and analyze course topics using equations, graphs, tables, and words. Students will be stretched to give explanations both verbally and in writing. Precise vocabulary and mathematical symbols will be an important aspect of communicating mathematically.

# MATHEMATICS, continued

## GEOMETRY

Prerequisite: Algebra I

During this course of study, students have the opportunity to explore and experience the concepts of geometry. Students use inductive reasoning to develop theorems about parallel lines, congruent triangles, quadrilaterals, and similar figures. Deductive reasoning skills are developed through solving practical problems and through exercises which require drawing conclusions based only on clues given. There are extended opportunities in this course for students to work with concrete models and drawings. Skills are further developed through problems requiring informal proof-writing. Throughout the year, students analyze figures and use their understanding to apply appropriate formulas. This requires a thorough understanding of the vocabulary of geometry.

## PRE-CALCULUS

Prerequisite: Completion of Algebra II and Geometry

Pre-calculus prepares students for calculus by using methods emphasizing technology, real-world applications, and student discovery. Topics include a thorough study of elementary functions including polynomial, exponential, logarithmic, and trigonometric. Trigonometry will be a major focus of this course. The instruction in this course constantly calls on previous math knowledge and often leads to observations of patterns and relationships in math that the students have not noticed before. These observations are enhanced and expanded through the use of technology, including graphing calculators and computer applications.

## DUAL ENROLLMENT

### MATH 110: CONTEMPORARY MATHEMATICS

Prerequisite: Successful Completion of Algebra II and Teacher Recommendation

This course offered in the fall of 2024 is designed primarily for non-STEM students and will transfer to fulfill the mathematics requirement at many four-year institutions, but not at others. It is intended to give the student an appreciation of the wide applicability of mathematics to many fields of study. Topics include quantitative reasoning and numeracy, mathematical models, statistical reasoning, patterns in nature, voting schemes, and fair division schemes with emphasis on applications. Math 110 is one semester in length and counts as 1 credit hour. College credit is also earned through Richard Bland Community College. **This course is taught in a hybrid format.**

### MATH 217: INTRODUCTORY STATISTICS

Prerequisites: Successful completion of Math 110 with a grade of C or better

This course offered in the spring of 2025 is a general introduction to random variables, descriptive statistics, sampling theory, estimation theory, tests of hypotheses, regression and correlation. Math 217 is one semester in length and counts as 1 credit hour. College credit is also earned through Richard Bland Community College. **This course is taught in a hybrid format.**



# HISTORY & SOCIAL STUDIES

## AMERICAN HISTORY 1

American History 1 is a survey course in American history from Jamestown through the dawn of the twentieth century. Students view American History in terms of our pursuit of five key ideals articulated in the Declaration of Independence: equality, rights, liberty, opportunity, and democracy. In the second half of the course students write a formal research paper. During presidential election years students also spend some time studying campaign issues and the positions the candidates have taken on those issues. Learning strategies include a variety of engaging, multisensory classroom activities. The primary objective of the course is to acquaint students with the major issues and events in American history so that they may develop their own well-reasoned, well-informed opinions, and exercise their responsibilities as citizens.

## AMERICAN HISTORY 2

American History 2 provides students with the opportunity to explore the history of the twentieth century. Students develop several key skills necessary for success in college-level courses: note taking, essay writing, and research. As part of the course, students work as individuals or in groups to prepare National History Day projects. These projects allow students to research a topic related to the annual theme and then present the results of that research in a documentary video, website, paper, or an original performance. Students are encouraged to make wide use of primary source materials in preparing their projects. In order to prepare students for the type of instruction they will encounter in college, students regularly take notes from a lecture-style lesson. Class activities also include group work and a variety of multi-sensory activities.

## CONTEMPORARY ISSUES - EXPLORING THE WORLD THROUGH CURRENT EVENTS

Prerequisite: Completion of American History I

In this dynamic and engaging semester class, students will immerse themselves in the ever-changing landscape of current events, exploring topics that are shaping our world today. With a focus on student-driven inquiry, critical thinking, and evidence-based analysis, students will develop essential skills for navigating the complexities of the modern world. Throughout the semester, students will have the opportunity to choose topics of personal interest within the realm of current events. Whether it's global politics, environmental issues, social justice movements, or technological advancements, students will delve deep into their chosen subjects, conducting research, gathering evidence, and forming their own perspectives. Central to the course is the Socratic seminar, a method of discussion that encourages critical thinking, active listening, and respectful dialogue. Through these seminars, students will engage in meaningful conversations about complex issues, challenging each other's perspectives while honing their ability to articulate their own viewpoints with clarity and conviction.

## EXPLORING THE GREAT WAR

World War I changed the shape of the 20th century more than any other event. In this semester-long course, students explore the major causes and consequences of the Great War through a variety of videos, primary and secondary sources, and simulations. Students will develop critical historical thinking skills while getting a closer look at a major event in history. Could WWI have been avoided? Who were the major combatants? Why did the peace treaty fail to prevent a second world war? Practice debates build source analysis skills, and more while exploring the answers to these questions.

## GOVERNMENT AND ECONOMICS

Government and Economics focuses on basic principles of government and economics in America. Students explore how our political system works and why it works the way it does. Students explore both the workings of the three branches of government and the role individual citizens play in the political process. Students also gain an understanding of basic economic principles. In preparation for future education they refine academic skills, including taking notes from lectures and producing formal academic writing. Most importantly, they prepare themselves to take on the rights and responsibilities of citizens in a democracy. Class activities emphasize multi-sensory, interactive strategies and rely heavily on student involvement and initiative.

# HISTORY & SOCIAL STUDIES, continued

## PHILOSOPHY

In this one-semester philosophy course, set in a seminar format, participants dive into Western and Eastern philosophical traditions through engaging discussions based on texts, videos, and experiments. Students are encouraged to contribute to debates actively and remain open-minded to various viewpoints. Writing is integrated into the curriculum as a key component, enabling students to refine their critical thinking and expression skills. The course also introduces the basics of logic, fostering a deeper understanding of rational argumentation. Ideal for those curious about life's big questions, this course is a journey into the world of philosophy, challenging and expanding young minds.

## REACTING TO THE PAST

In this semester long course students explore significant historical events through role play and simulations. Students will learn about a variety of historical topics through gamified scenarios. Take on the role of a historical figure as we explore Athenian Democracy in 403 BCE, the Cuban Missile Crisis, or the July Crisis of 1914 (outbreak of WWI). Work to achieve your secret objectives and win the simulation. Students will also develop public speaking and debate skills while analyzing primary and secondary sources.

## WORLD HISTORY

In World History, students explore the emergence of the modern world from the Renaissance through the early 20th century. Students examine the European Renaissance, the Protestant Reformation, and the exploration that connected Europe with civilizations in other parts of the world. The course continues with a study of the Scientific Revolution and the Enlightenment in Europe and how these changes and discoveries led to the Age of Revolutions. Students also examine how industrialism and nationalism around the world set the stage for the 20th century. The course utilizes a variety of multi-sensory instructional techniques and a wide range of materials. In order to improve research and writing skills, students complete at least one research project about a topic studied over the course of the year.





# HISTORY & SOCIAL STUDIES, continued

## DUAL ENROLLMENT

### HISTORY 121: UNITED STATES HISTORY I

Prerequisite: Cumulative GPA of 3.0 or higher and successful completion of American History I

History 121: United States History I is a college-level course offered to students with a strong interest in American history who would benefit from continuing to develop their reading and writing skills through the medium of a challenging academic course. Students explore the history of the United States from its origins to 1877. Major topics include European exploration; the development of the American colonies and their institutions; the Revolution; major political, social and economic developments; geographical expansion; the Civil War; and Reconstruction. In addition to the use of a college level textbook, which provides a deeper and richer body of knowledge than students have encountered in previous courses, students are expected to read a wide array of primary and secondary source material. Students work to develop reading, writing, discussion, and historical thinking skills, particularly the ability to generate a historical argument and defend it with appropriate historical evidence.

Dual Enrollment History 121: United States History 121 is one semester in length and counts as 1 credit hour. College credit is also earned through Reynolds Community College.

### HISTORY 122: UNITED STATES HISTORY II

Prerequisite: Completion of History 121

Students who have completed History 121: United States History I can continue their exploration of our nation's history in History 122: United States History II. Students survey the history of the United States from 1865 to present. Major topics include political, social and economic developments since 1865; overseas expansion; the two world wars; the Cold War; and the post-Cold War era. Building off the skills developed in the first semester, students continue to grow historical analysis skills through the use of primary and secondary source analysis. Students also expand their historical research skills while completing a formal research paper.

Dual Enrollment History 122: United States History 122 is one semester in length and counts as 1 credit hour. College credit is also earned through Reynolds Community College.

# SCIENCE

## ANATOMY AND PHYSIOLOGY

Prerequisite: Students must have successfully completed Chemistry.

Topics covered include the basic organization of the body, diagnostic techniques and procedures, cellular and biochemical composition, organization of tissues, and several major body systems along with the impact of diseases on those systems. Students engage in topics and competencies related to truly understanding the structure and function of the human body. The students will use case studies, hands-on activities, and lab work to explore the concepts and engage with the material successfully.

## AP CHEMISTRY

Prerequisite: Students must have successfully completed Chemistry.

The AP® Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first year of college. Students will obtain an understanding of chemistry foundations to support additional learning in chemistry. This course will develop critical thinking skills and the ability for students to clearly express their ideas and understandings. It will be necessary for students to complete work outside of class. For details regarding course objectives and units, please refer to the AP® Chemistry Course Description.

## BIOLOGY

Biology introduces students to increasing levels of complexity in living systems. The course covers the structure and function of organisms and the interdependence of organisms in an ecosystem. Students learn the place of humans in relation to other living things. Specific areas of emphasis include the growth and development of organisms, the cycling of energy and matter in ecosystems, interactions of biotic and abiotic factors in an ecosystem, heredity, and biological evolution. Much of the information covered in class is supplemented with hands-on activities to strengthen understanding of the concepts presented. Lab participation is an integral part of this course and students will develop lab skills throughout the course.

## CHEMISTRY

Prerequisite: Students must have previously taken Algebra I.

Chemistry is the study of how substances act and interact in the presence of various forms of energy, such as heat or electricity. The purpose of chemistry is to help students realize the role of chemistry in their personal lives; use chemical principles to think more intelligently about current issues that involve science and technology (thus developing decision-making skills); and develop a lifelong awareness of the potential and limitations of science and technology. Each unit in the course centers on a technological issue now confronting our society. The topic serves as a foundation for studying the chemistry needed to understand and analyze the issue. Each unit culminates in an activity designed to help students apply their chemical knowledge in investigating a problem, proposing solutions to the problem, and analyzing the effects of their solutions. This course is designed to help students understand basic chemical principles and master problem-solving skills. Chemical topics covered in the course include basic science concepts, measurements, atomic theory, bonding, stoichiometry, states of matter, solutions, acids and bases, and organic and nuclear chemistry.

## ENVIRONMENTAL SCIENCE

Environmental science is the study of patterns and processes in the natural world and their modification by human activity. This course will focus on teaching students to think like an environmental scientist, understand how natural systems are affected by people, and give students an appreciation of their impact on the environment. This course will give students the skills necessary to address the environmental issues we are facing today by examining scientific principles and the application of those principles to natural systems. We will especially focus on the James River and the Chesapeake Bay Watershed. Students will participate in activities that have a positive impact on the environment and focus on how to be good stewards of our environment to sustain it for future generations.



# SCIENCE, continued

## PHYSICS

Prerequisite: Students must have successfully completed Chemistry.

Topics covered in Physics include forces and interactions, energy and waves and electromagnetic radiation. While studying forces and interactions, students develop their understanding of Newton's Laws of Motion and the gravitational and electrostatic forces between objects. While studying energy, students learn that all energy can be traced to motions of particles or energy associated with the relative positions of particles. Students learn that wave properties and the interactions of electromagnetic radiation with matter can transfer information across long distances, store information, and be used to investigate nature on many scales. Models of electromagnetic radiation as either a wave of changing electric and magnetic fields or as particles are developed and used. Physics focuses on a more complex understanding of experimentation, the analysis of data, and the use of reasoning and logic to evaluate scientific evidence.

## DUAL ENROLLMENT

### HLT 206: INTRODUCTION TO KINESIOLOGY

Prerequisite: Cumulative GPA of 3.0 or higher, completion of Chemistry

Introduces the study of various forms of physical activity and how they promote human health. Examines the study of physical activity from the perspectives of professional practice, scholarly study and experience. Provides a broad overview of the history, scientific principles, methodologies, and research among the major subdisciplines to prepare students for further study in kinesiology and health sciences. Explores current issues, future directions, certifications, professional associations, and career opportunities. Dual Enrollment HLT 206: Introduction to Kinesiology is one semester in length and counts as 1 credit hour. College credit is also earned through Reynolds Community College.



# HEALTH & WELLNESS

## ACE PERSONAL TRAINING CERTIFICATE

The ACE Personal Trainer course provides you with the relevant skills to design and apply unique exercise programs based on your clients' goals, abilities, and needs. The program blends evidence-based exercise science with ACE's signature behavior change philosophy, which will set you apart as a compassionate personal trainer. Students completing the course are eligible for the ACE Personal Trainer certification.

## ADVANCED STRENGTH AND CONDITIONING TRAINING

Prerequisite: Strength and Conditioning Training

For students who have successfully completed the Strength and Conditioning course, Advanced Strength and Conditioning is a high intensity course designed to meet the needs of highly motivated students. Students engage in regular strength training including weight lifting along with other related activities. Expected outcomes include increases in flexibility, strength, and overall power.

## CARE AND PREVENTION OF ATHLETIC INJURIES

This course is designed to inform students about the basics of prevention, recognition, care, assessment, treatment and rehabilitation for injuries to physically active populations. NOTE: This course also has required practicum hours.

## HEALTH AND WELLNESS

Health and Wellness is required for all 9th grade students. As students move into adolescence, it becomes critical to provide tools that promote health, positive decision making, and self-management. Focusing on the physical, central nervous, and immune systems, we learn how each of these react to forces in the world around us and work to protect us in our daily lives. We will consider strategies to help us create and maintain lifelong habits that positively impact our mental, social, and emotional well-being. Key themes include mental health, addiction/substance abuse, sexual health, and self-management. In an ever-changing world, topics covered in Health and Wellness are flexible to address relevant needs, interests, concerns, and experiences of the individual, the school community, and the community at large. The heart of enhancing our student's health and wellness continues to be strengthening their ability to:

- access and assess valid information, products, and services;
- communicate and advocate effectively and appropriately; and
- evaluate, analyze, and apply knowledge for self-management.

## STRENGTH AND CONDITIONING TRAINING

Prerequisite: Upper School Physical Education

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.

## UPPER SCHOOL PHYSICAL EDUCATION

The Physical Education program at TNCS provides all students the access to standards-based instruction that promotes health literacy and the motivation to engage in health-enhancing physical activity needed to achieve and maintain a balanced, healthy life. Upper School Physical Education is designed to promote physical fitness, wellness, and healthy living among high school students. This course provides opportunities for students to engage in a variety of physical activities, develop motor skills, and gain knowledge about the importance of regular exercise and proper nutrition. Through active participation in various sports and recreational activities, students will enhance their physical literacy and develop lifelong habits for maintaining a healthy lifestyle.



# HEALTH & WELLNESS, continued

## DUAL ENROLLMENT

### HLT-116 INTRODUCTION TO PERSONAL WELLNESS CONCEPTS

Prerequisite: Cumulative GPA of 3.0 or higher

Introduction to Personal Wellness Concepts is offered to students with a strong interest in personal wellness. This course introduces students to the dimensions of wellness including the physical, emotional, environmental, spiritual, occupational, and social components. Introduction to Wellness Concepts is one semester in length and counts as 1 credit hour. College credit is also earned through Reynolds Community College. This course is open to juniors and seniors.





# FINE & PERFORMING ARTS

## BAND

Upper School Beginner Band is designed for students who are interested in learning how to play a musical instrument and become part of a collaborative musical ensemble. This course aims to provide students with a solid foundation in instrumental music through hands-on instruction, individual practice, and ensemble playing. Students will also learn the importance of teamwork and cooperation as they work together to create beautiful music as part of the band ensemble. Through regular rehearsals and performances, students will develop their musical skills while building confidence and a sense of accomplishment.

**Please note:** Students are required to provide their own instruments for this band course. If you do not own an instrument, please consult with the instructor for guidance on instrument rental or purchase options. Having access to your own instrument will ensure that you can fully participate and engage in the learning process throughout the duration of the course.

## CERAMICS

Ceramics is a semester course that teaches students how to manipulate clay in order to create functional and sculptural works of art. Students will learn essential skills required to make functional and attractive works. The course will primarily focus on hand building methods, plaster molds used for form, and surface design techniques. Students will have the opportunity to try the basics of wheel throwing or grow their existing skills in this area. This course will teach the artistic behaviors necessary to plan and sequence a successful art project.

## DIGITAL PHOTOGRAPHY I

Digital Photography I is a studio art class that introduces light as a creative means to communicate information. This course serves as an introduction to composition, creative process, camera mechanics, history, and forms of photography as well as digital editing. These building blocks help express and expand the students' view of the world around them. DSLR cameras are provided and internet editing programs are utilized. Students are expected to demonstrate proper care of the camera, take photos in and outside of class time, participate in formal and informal critique, pose for other's pictures when needed and generate multiple solutions to class prompts.

## DIGITAL PHOTOGRAPHY II

Prerequisite: Digital Photography Part I

Digital Photography II is a studio art class that expands student understanding of light as a creative means to communicate information. This is an advanced course with a focus on composition, creative process, camera mechanics, and digital editing. DSLR cameras are provided and internet editing programs are utilized. Students are expected to demonstrate proper care of the camera, take photos in and outside of class time, design and implement independent studies, participate in formal and informal critique, generate multiple solutions to class prompts and above all demonstrate a willingness to explore the world around them through the lens of an artist.

## DIGITAL PHOTOGRAPHY III

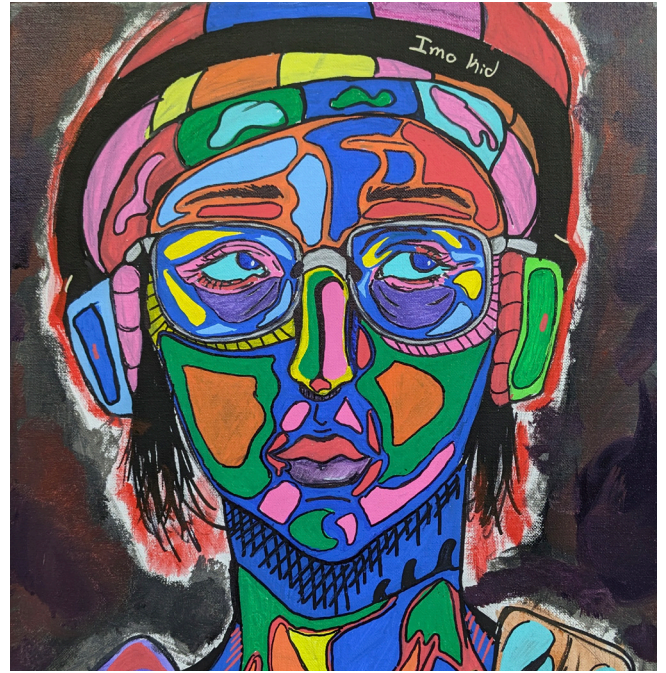
Prerequisite: Digital Photography II

Digital Photography III is an advanced studio art class that continues to build on a students' ability to capture light as a creative means to communicate information. This is a student driven course which requires a strong understanding of light, camera mechanics, creative process and digital editing. Students need to be able to work independently, take photos outside of class time, and demonstrate a willingness to experiment with photography to develop an original, personal, and innovative artistic voice. Portfolio composition is strongly encouraged.

# FINE & PERFORMING ARTS, continued

## DRAWING I

Drawing I is a semester course that is designed to develop the connection between observational skill and mark making. Students will maintain a sketchbook, experiment with graphite, charcoal, pastel, colored pencil and other drawing media, and collaborate in discussions around personal meaning/vision and growth. Subject matter, style and technical choices are both student driven and referential to famous works of art studied throughout the semester. Drawing I is a great beginning class for anyone interested in studio art who wants to strengthen their control of 2D media and understanding of art worlds.





# FINE & PERFORMING ARTS, continued

## DRAWING II

Prerequisite: Drawing I

Drawing II is a semester course for students interested in building upon the technical and formal mark making skills learned in Drawing I. Students have the opportunity to continue exploring drawing media and experimentation with a focus on skill mastery and exploration of personal meaning making and innovation in the arts. Portfolio composition is strongly encouraged and taking artistic risks is prioritized over project closure.

## FILMMAKING

This semester course introduces students to the art of video production. Students learn to use cameras, lights, and microphones while navigating the cycle of video production, including writing, planning, filming, and editing. All work is project-based, focusing on story development, technical skill, voice and style, and ethical media use. Students are empowered to explore their own stories, and all projects allow student choice in the content they create. By the end of the course, students will have a strong understanding and skill set to tell stories through the visual medium of video production.

## GUITAR ENSEMBLE

Guitar Ensemble will provide opportunities for playing guitar in small groups to increase the abilities and the musical knowledge of the participants. Covering styles from jazz, rock, metal, acoustic pop, funk, fusion, classical, and blues, students with previous guitar experience will expand their technical skills. Students will have opportunities to play other instruments such as keyboard, percussion, mandolin, banjo, ukulele, and bass guitar. Students will also be encouraged to create their own music for performance. It is recommended that a student take Introduction to Guitar and Ukulele before this class, unless they have a working knowledge of chords, strum patterns, and tablature beforehand.

## INTRODUCTION TO GUITAR AND UKULELE

Introduction to Guitar and Ukulele is a beginner's course of fundamental guitar or ukulele instruction. Students receive individual and group instruction in tuning, notes, scales, chords, tablature and strum charts, basic song structure, and small group performance. Students can progress at their own pace and are encouraged to focus on music and songs they find most appealing. The emphasis is on contemporary guitar music, though there are brief introductions of classical guitar and standard notation. In addition, students have opportunities to try other instruments such as keyboard, percussion, banjo, and bass guitar.

## MUSIC RECORDING STUDIO

Students will learn the fundamentals of music production and recording. Starting with pre-production, the course will focus on studio design, equipment setup, microphone use, and creating basic demos. Moving into the production phase, students will focus on recording techniques, how to use GarageBand software, applying effects, organizing, and arranging tracks, time management, and developing critical listening skills. In the post-production phase, students will learn basic mixing and mastering techniques. In addition, at the heart of any great recording is a great song. Songwriting will play a big part in this course. Students must have decent musical ability and be self-directed.

## PAINTING I

Painting I is a semester course that will focus on acrylic painting. Students will complete works from direct observation, imagination, and photographic reproduction. Color theory, aesthetics, and famous painters will be discussed to guide students towards independent and purposeful creative behaviors. Students will maintain a sketchbook that will continually track their artistic growth. Completion of Drawing I is encouraged but not required.



# FINE & PERFORMING ARTS, continued

## PAINTING II

Prerequisite: Painting I

Painting II is a semester course that allows students to build upon and grow basic skills previously cultivated in the level one course. Students will have the opportunity to choose a painting style or concept they would like to explore at a higher level. Aesthetic understanding and refinement of various techniques will be measured in formative and summative assessments by both student and teacher. Final summative projects will assess student's progression at higher levels of aesthetic and technical understanding within the acrylic painting medium. Personal meaning making and innovation in the arts is encouraged.

## THEATER EXPLORATORY

In this class, students will get an introduction into the basics of drama while also being able to express and challenge themselves through the art of theater. Students will strengthen their acting and technical abilities by learning about improv, and all technical elements. Since this is an exploratory course, everyday starts with a series of warmups for each student to connect with and get into their artistic beings. Throughout this course, students will regularly self-evaluate and stretch their performance abilities to new norms.

## THEATER PERFORMANCE

Prerequisite: Theater Exploratory

In this class, students will get a refresher on the basics of drama while also being able to express and challenge themselves through the art of theater. The students will learn different styles of acting while figuring out what best works for them as a performer. We will challenge our knowledge through doing many in class scenes and practicing 'memory checks'. We will also learn how to build theater resumes and prepare for an audition. This class also helps students with memorization techniques, the tools to public speaking, and the art of selling yourself to any employer.

## TECH THEATER

Prerequisite: Theater Exploratory

In this class, students will get a refresher on the basics of drama while also being able to express and challenge themselves through the technical side of theater. They will do a series of different projects and activities centered around costuming, lighting, time management, and picturization/set building. This will help prepare them for their final production. Students will work on creating the technical structure for most of the Saber Player Season. This will include publicity, painting, construction, lighting, sound, wardrobe, and properties.

## VOICE AND DANCE

Dive into the dynamic world of musical theater in our comprehensive class! Students of all levels will explore singing, dancing, and a touch of acting, with a strong focus on vocal training. From Broadway classics to modern hits, students will tackle diverse styles and genres, preparing them for potential performances, including Christmas caroling events and Valentine's Day serenades. Through individual and group exercises, they'll hone their vocal skills, creativity, and collaboration abilities, while also delving into character development and stage presence. Whether seasoned performers or newcomers, all will find a supportive environment to shine. Join us for an enriching journey into the magical realm of musical theater!

## YEARBOOK

The yearbook elective course is designed to instruct students in the fundamentals of graphic design and the processes associated with print production with the ultimate aim of producing Dimensions, the TNCS yearbook. Students will take and edit photographs, write headlines and captions, learn the elements of eye-catching design, and fit text and photos into layouts using the yearbook program.

# CAREER & TECHNOLOGY

## DESIGN, BUILD, REPEAT

This course will introduce students to the technologies of the TNCS makerspace. Students will learn how to design a product using the design thinking process, build a prototype of their idea, and then refine the idea into a final product. Areas that will be covered include 3D printing, robotics, electronics, VR and AR technologies, drone/UAV building and flight, and digital media. Students will be encouraged to utilize their own ideas in each build. By the end of the course, students will have a strong set of skills and foundational knowledge about the emerging technologies used in the makerspace.

## CAREER EXPLORATION

Career Exploration is a quarter-long required course for sophomores. This class is exploratory in nature with the goal of increasing students' self-knowledge, career awareness, and career preparation. Students will develop personal learning plans/ career learning plans utilizing current career resources, and hands-on activities.

## ELECTRICAL ENGINEERING

Electrical Engineering is a semester course, students learn about the basics of electricity and electrical components. The course is largely self-paced as students work through a variety of Arduino projects. Students then apply their knowledge and skills to a project of their choice. This class encourages problem solving, research skills, and creativity.

## PERSONAL FINANCE

Personal Finance is a quarter-long required course for sophomores designed to improve students' financial literacy. Centered around the theme of understanding the basics of personal finances, it focuses on gaining a better understanding of banking basics, saving and investing, earning income and paying taxes, and the benefits and process of preparing a budget. Students will be educated and motivated to adopt responsible financial habits.

## ROBOTICS

The VEX Robotics elective course provides students opportunities to develop skills in engineering, coding, 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.

## WORKFORCE ALLIANCE CORE INTRODUCTION CRAFT SKILLS

The National Center for Construction Education and Research (NCCR) Core training course is a prerequisite to all other NCCER Level 1 craft curriculum in construction and industrial occupations such as carpentry, HVAC, electrical, plumbing, welding, drywall, and construction craft laborer.

## WORKFORCE ALLIANCE ELECTRICAL LEVEL I

Prerequisite: Core Introduction Craft Skills

The National Center for Construction Education and Research (NCCR) is the credentialing body for the NCCER Electrical level 1 certification. The NCCER Electrical level 1 certification course is part of the required training for many companies' apprenticeship programs. This course is intended for students interested in entering the electrician industry. Topics covered include electrical safety, electrical circuits, electrical theory, national electrical code, device boxes, raceways, fittings, conduit, conductors and cables fasteners and anchors, and basic electrical construction drawings.



# CAREER & TECHNOLOGY, continued

## WOODWORKING

Woodworking introduces students to woodworking skills in a hands-on, project-based learning curriculum. The class begins with shop safety and the safe use of mechanical and electric tools before exploring basic techniques of sawing, planing, shaping, joining, and finishing wood. Initially, students will learn to use hand tools and basic woodworking techniques. As students develop their skills, awareness, and experience, they will be introduced to the safety and operation of larger machinery. Each student progresses individually through the sequence of skills with an aim toward mastery. The course seeks to develop in students a lifelong interest in wood craftsmanship and helps them explore three-dimensional creative expression in wood.





# ONLINE CAREER & TECHNOLOGY OPTIONS

Online coursework will be offered through Global Online Academy (GOA) in partnership with TNCS. Students enrolled in GOA courses have a dedicated instructor and community of peers, just like a traditional course. Courses take place online and mostly asynchronously. This means students can complete their coursework anytime, as long as they meet the deadlines and due dates set by their instructors. Students will have a dedicated time within their school day to complete their online coursework. Using GOA's online platform, they will communicate with their teacher, complete weekly coursework, and participate in discussions with classmates. All GOA courses are led by qualified teachers actively guiding students by interacting in class discussions and private discussions with each student, along with grading assignments. Teachers have synchronous check-ins with students on a regular basis. GOA courses are open to juniors and seniors. **Students who drop a selected course after the designated deadline will be responsible for the cost of the course.**

## ARCHITECTURE

In this course, students build an understanding of and apply skills in various aspects of architectural design. While gaining key insights into the roles of architectural analysis, materials, 3D design, and spatial awareness, students develop proficiency in architectural visual communication. We begin by learning the basic elements of architectural design to help analyze and understand architectural solutions. Through digital and physical media, students develop an understanding of the impact building materials have on design. At each stage of the course, students interact with peers from around the globe, learning and sharing how changes in materials, technology, and construction techniques lead to the evolution of contemporary architectural style and visual culture.

## BIOETHICS

Ethics is the study of what one should do as an individual and as a member of society. Bioethics refers to the subset of this field that focuses on medicine, public health, and the life sciences. In this course, students explore contemporary, pressing issues in bioethics, including the “right to die,” policies around vaccination and organ transplantation, competence to consent to care, human experimentation and animal research, and genetic technologies. Through reading, writing, research, and discussion, students will explore the fundamental concepts and questions in bioethics, deepen their understanding of biological concepts, strengthen their critical-reasoning skills, and learn to engage in respectful dialogue with people whose views may differ from their own. The course culminates with a student-driven exploration into a particular bioethical issue, recognizing the unique role that bioethics plays within the field of ethics.

## COMPUTER SCIENCE - COMPUTATIONAL THINKING

This Computational Thinking Course focuses on solving problems, designing systems, and understanding human behavior. It has applications not only in computer science, but also a myriad other fields of study. This introductory level course centers on thinking like a computer scientist, especially when it comes to understanding how computer scientists define and solve problems. This course is the prerequisite to all computer science coursework.

## CYBER SECURITY

Cyber criminals leverage technology and human behavior to attack our online security. This course explores the fundamentals of and vulnerabilities in the design of computers, networks, and the internet. Course content includes the basics of computer components, connectivity, virtualization, and hardening. Students will learn about network design, Domain Name Services, and TCP/IP. They will understand switching, routing and access control for internet devices, and how denial of service, spoofing and flood attacks work. Basic programming introduced in the course will inform hashing strategies, while an introduction to ciphers and cryptography will show how shared-key encryption works for HTTPS and TLS traffic. Students will also explore the fundamentals of data forensics and incident response protocols. The course includes analysis of current threats and best practice modeling for cyber defense, including password complexity, security, management, breach analysis, and hash cracking. Computational thinking and programming skills developed in this course will help students solve a variety of cyber security issues.

# ONLINE CAREER & TECHNOLOGY, continued

## ENTREPRENEURSHIP IN A GLOBAL CONTEXT

How does an entrepreneur think? What skills must entrepreneurs possess to remain competitive and relevant? What are some of the strategies that entrepreneurs apply to solve problems? In this experiential course, students develop an understanding of entrepreneurship in today's global market; employ innovation, design, and creative solutions for building a viable business model; and learn to develop, refine, and pitch a new startup.

## INTERNATIONAL RELATIONS

Are China and the U.S. on a collision course for war? Can the Israelis and Palestinians find a two-state solution? Will North Korea launch a nuclear weapon? Can India and Pakistan share the subcontinent in peace? These questions dominate global headlines and our daily news feeds. In this course, you will go beyond the soundbites and menacing headlines to explore the context, causes, and consequences of the most pressing global issues of our time. Through case studies, students will explore the dynamics of international relations and complex interplay of war and peace, conflict and cooperation, and security and human rights. Working with classmates from around the world, students will also identify and model ways to prevent, mediate, and resolve some of the most pressing global conflicts.

## INTRODUCTION TO BRANDING AND MARKETING

In our increasingly digitized world, we are bombarded by ads every day and presented with an immeasurable amount of content across all media platforms. It has become increasingly difficult for brands to break through the noise and capture the attention of their intended audience. In this course, students learn what it takes to build an effective brand that can authentically connect with consumers and create long-term brand equity.

The course starts with introducing what a brand is and goes on to explore how different branding elements, such as visual identity, advertising strategy, and content marketing, as well as the intangible elements of the customer journey, come together to create a unique brand experience. By applying marketing theories, interviewing experts, and analyzing modern case studies, students develop and strengthen their competencies as brand strategists. Students also examine how responding to important ethical, social, and environmental issues can impact the brand's success. The course culminates in a final project where students collaborate to design an impactful brand campaign for a mission-driven company, organization, or initiative.

## INTRODUCTION TO LEGAL THINKING

This course uses a case-based approach to give students a practical look into the professional lives of lawyers and legal thinking. By studying and debating a series of real legal cases, students will sharpen their ability to think like lawyers who research, write and speak persuasively. The course will focus on problems that lawyers encounter in daily practice, and on the rules of professional conduct case law.

## INTRODUCTION TO PSYCHOLOGY

What does it mean to think like a psychologist? In Introduction to Psychology, students explore three central psychological perspectives in order to develop a multi-faceted understanding of what thinking like a psychologist encompasses - the behavioral, the cognitive, and the sociocultural. The additional question of "How do psychologists put what they know into practice?" informs study of the research methods in psychology, the ethics surrounding them, and the application of those methods to practice.







# ONLINE CAREER & TECHNOLOGY, continued

## INVESTING I

In this course, students simulate the work of investors by working with the tools, theories, and decision-making practices that define smart investment. Students explore concepts in finance and apply them to investment decisions in three primary contexts: portfolio management, venture capital, and social investing. After an introduction to theories about valuation and risk management, students simulate scenarios in which they must make decisions to grow an investment portfolio. They manage investments in stocks, bonds, and options to learn a range of strategies for increasing the value of their portfolios. In the second unit, students take the perspective of venture capital investors, analyzing startup companies and predicting their value before they become public. In the third unit, students examine case studies of investment funds that apply the tools of finance to power social change. Throughout the course, students learn from experts who have experience in identifying value and managing risk in global markets. They develop their own ideas about methods for weighing financial risks and benefits and leave this course not just with a simulated portfolio of investments, but the skills necessary to manage portfolios in the future.

## MACROECONOMICS

Macroeconomics is the study of economic units as a whole rather than of their individual components. The aggregate unit is usually a national economy and that is the focus of this course. Students learn to better understand how to measure national economic activity with concepts like gross domestic product, unemployment and inflation, and the strengths and weaknesses of these statistics. Students then study theoretical methods of influencing national economic activity with monetary and fiscal policy and learn about some of the controversy surrounding these policy tools. The advantages and disadvantages of international trade and of methods of setting exchange rates are also introduced. The course includes an individual student investigation of a national economy other than their home country. Students identify their economic findings and present resolutions in their final report.

## MEDICAL PROBLEM SOLVING

In this medical program for high school students, participants collaboratively solve medical mystery cases, similar to the approach used in many medical schools. Students use problem-solving techniques in order to understand and appreciate relevant medical/biological facts as they confront the principles and practices of medicine, and enhance their critical thinking skills through examining data, drawing conclusions, making diagnoses, and treating patients. Students explore anatomy and physiology pertaining to medical scenarios and gain an understanding of the disease process, demographics of disease, and pharmacology. Additional learning experiences in this high school summer medical program include studying current issues in health and medicine, interviewing a patient, and creating a new mystery case.

## MICROECONOMICS

In this course, students learn about how consumers and producers interact to form a market and then how and why the government may intervene in that market. Students deepen their understanding of basic microeconomic theory through class discussion and debate, problem solving, and written reflection. Students visit a local production site and write a report using the market principles they have learned. Economic ways of thinking about the world help them better understand their roles as consumers and workers, and someday, as voters and producers.

# INDEPENDENT STUDY

An Independent Study elective course is offered to motivate well-organized sophomores, juniors, and seniors. Students' pursuits must be academic in nature and may include research, writing, reading, intensive study in a performing or visual art, and other similar endeavors. Independent studies are semester-long, .5 credit courses conducted during the school year and are reflected on a student's transcript with the course title "Independent Study" followed by the department sponsoring the study (e.g., "Independent Study: History"). Students must apply for independent study, with approval by the end of the semester that precedes the one for which the study is proposed. The Associate Head of School, along with department chairs, will consider the proposal and will approve or deny the student's enrollment in the study.

An independent study proposal must contain the following elements:

- a timeline that specifies when student-faculty sponsor meetings will occur and how they will be used,
- a description of the skills that the study will cultivate, and
- a description of the product that the student will create.

At the conclusion of the semester in which the independent study takes place, the student must make a final presentation in which they

- present the final product,
- explain the methods used in creating the product,
- reflect upon how the study cultivated the skills that the student identified in the proposal, and
- present a final list of scholarly sources used while engaged in the study.

## TNCS IS ACCREDITED BY

Southern Association of Independent Schools  
Virginia Association of Independent Schools  
Virginia Council for Private Education

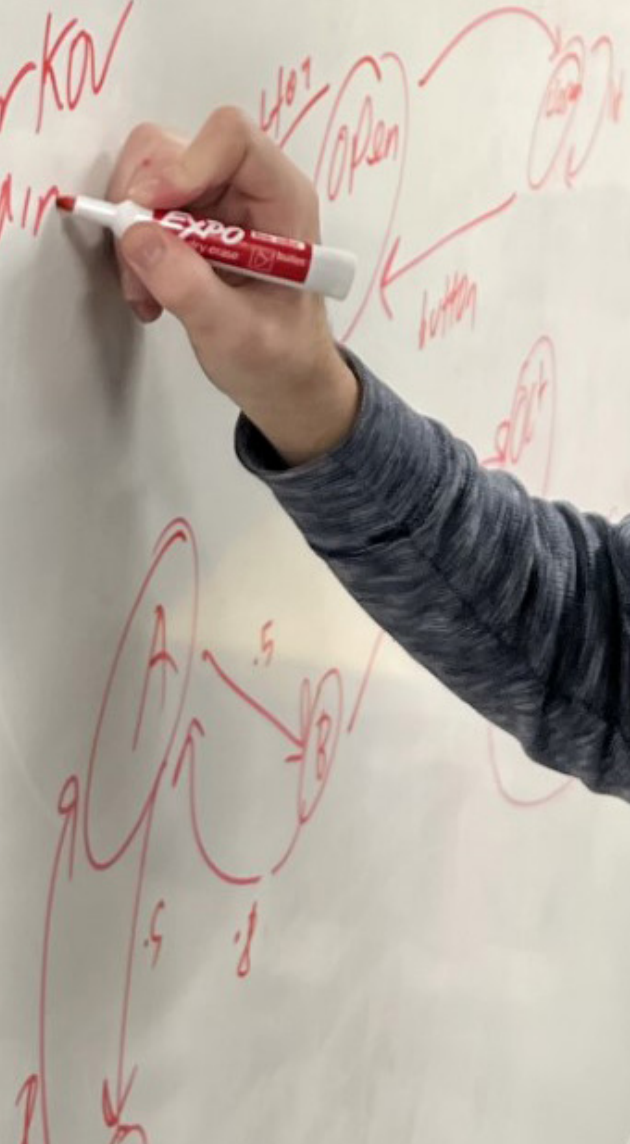
## AND IS A MEMBER OF

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empowering bright minds who think & learn differently

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4211 Hermitage Road, Richmond, VA 23227 | 804.266.2494 | [tncs.org](http://tncs.org)

