



Electives

Creative Writing

Photo-Journalism

Speech

AP Psychology (11th and 12th)

Psychology (11th and 12th)

Sociology (11th and 12th)

Advanced PE (11th and 12th)

Theater Arts

Band

Guitar

Chorus

Art

Intro to Plant Systems

Horticulture

Greenhouse Plant Production & Mgt

Applied Agricultural Concepts

at WHS

2020

2021

Information Technology

Fundamentals

Programming

Advance Programming

Database Design and Mgt.

Design, Multimedia and Web

Technologies

Engineering Explorations

Engineering Analysis &

Applications

Engineering Concepts & Processes

Engineering Practicum

For course descriptions and course prerequisites please refer to the following website:

<https://www.iwcs.k12.va.us/apps/pages/programofstudies>. Our Program of Studies

provides extensive information on courses and graduation requirements.

Electives

2019-2020

Please go to this website for further, more detailed information:
<https://www.iwcs.k12.va.us/apps/pages/programofstudies>

Creative Writing

Prerequisite: English 9 or Honors English 9

This course extends students' prose writing techniques. Emphasis is placed on a variety of prose models that include short stories, essays, and dramatic scripts.

Photo-Journalism

Prerequisite: English 10 or Honors English 10

This course provides students with the opportunity to work on the production/publication of a school yearbook. Students will study aspects of journalistic writing including writing body copy, captions, and headlines. Layout and design as well as salesmanship are essential areas of the class. Students will study the guidelines of photographic composition and are expected to apply the guidelines to class assignments.

Speech Fundamentals /Public Speaking

Prerequisite or Grade Level: English 9 or Honors English 9

This course covers the theory and practice of public speaking. The course guides students through topic selection, organization, language, and delivery. Students will be actively involved in every step of the process of public speaking preparation and execution. Students will work independently and in small groups. Assignments include formal speeches (to inform, to persuade, and to pay tribute), brief extemporaneous speeches, speech analyses and evaluations, nonverbal communication, debate, mass media, and parliamentary procedures.

AP Psychology

Grade 11 and 12

This yearlong course is an introduction to the scientific study of behavioral and mental processes of humans and other animals. The major principles of psychology, including ethics and the methods of psychologists, will be examined. Students will receive an elective credit for this course. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

CAREER ACADEMY

WHS - Cosmetology

Building Trades

Agriculture

SHS - Culinary

Welding

Nurse Aide

Psychology (29000G)

This course is designed to introduce students to the systemic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields. They also learn about the ethics and methods psychologists use in their science and practice.

Sociology

Grade 11 and 12

This course is designed to examine the principles of sociology, the individuals in a group, social institutions, social control, and the use of research methods to examine social problems and issues. The course provides opportunities for students to develop critical thinking, decision-making and social skills concerning human relationships.

Advanced PE I

Prerequisite: Health, Physical Education 10 and Driver Education

In this course elective physical education provides students with the opportunity to participate in physical activities for specific purposes. Students should be offered the opportunity to self-select activity throughout the course. Students will select areas of concentration to study. Examples of possible choices are: individual sports, lifelong activities, outdoor pursuits, Pilates, self-defense, skating, team sports, weight management, weight training/conditioning. Students in grades eleven and twelve demonstrate the knowledge and understanding necessary to analyze movement performance in an activity of choice using scientific principles, and implement effective practice procedures for skillful performance in specialized movement forms. Students apply advanced movement-specific information so that they develop the ability to learn, self-assess, and improve movement skills independently.

Theater Arts I - IV

This course is designed to provide students with a survey of theatre arts. Students are provided opportunities to experience and appreciate dramatic literature and participate in the creative processes of performance and production. The course emphasizes skill development and provides theatrical opportunities that enable students to determine areas of interest.

Technical Theatre

Prerequisite: Theater Arts I or Art I

This course focuses on the skills of technical production work for theatrical performances, including state management, set construction, lighting and sound operation and design, backstage running crews, and house management. The students will be responsible for serving as the technical crew for productions of the theater arts classes; therefore, additional after-school rehearsals and performances are required of all students.

Concert Band

Prerequisite: Middle School Band or Audition

In this course students will continue to develop their musicianship and music literacy. Students will perform ascending and descending scales in various key signatures and develop ensemble skills. Students will refine ability to produce a controlled tonal quality, and broaden their knowledge of musical terms. This is a performance based course.

Guitar

In this course the students will learn basic guitar skills including identifying parts of the guitar, the history and how to tune by ear. They will begin to read music and learn basic strumming techniques with a pick. Students will learn to play open chords and arpeggios using just their fingers.

Chorus I

This course focuses on beginning vocal techniques, reading and writing basic musical notation, critiquing musical events, following conducting, and singing unison and harmony. Students will perform selections representing contrasting periods and styles. This is a performance based course.

Art I

In this course the students will study the elements of art and the principles of design. They will develop skills using a variety of media. The students will expand their imagination and work on observational drawing skills. Students will learn to analyze and critique artwork, in addition to exploring art history and aesthetics. Students will be required to maintain an art sketchbook.

Art II

Prerequisite: Art I

This course will focus on two dimensional art. Prior knowledge of the elements of art and the principles of design is expected. The students will expand their technical drawing skills, while using a wide variety of two-dimensional media. There will be an emphasis on applying and developing compositional skills while creating and using a variety of styles and techniques. Students will expand their art vocabulary and writing skills to enhance their abilities to critique works of art. They will develop interpretive skills as they study art history and analyze historical artwork. The students will begin to create a body of artwork for a portfolio. The students in this class will be required to maintain an art sketchbook.

Art III

Prerequisite: Art II

This course will focus on three-dimensional art. Prior knowledge of the elements of art and the principles of design is expected of the students. There will be an emphasis on applying the design principles to further develop compositional skills in creating three-dimensional artwork. The students will explore a variety of three-dimensional art media. They will further expand their vocabulary and writing skills through the exploration of art history and three-dimensional artists. They will create three-dimensional artwork suitable for a portfolio. This class will require maintaining an art sketchbook.

Art IV

Prerequisite: Art III

In the course the students should be motivated to prepare a body of work for a college portfolio or to prepare for AP Studio Art. There should be a commitment to rigorous completion of quality artwork and to create artwork outside of the class. Students will determine and explore an area of concentration focusing on a personal visual interest or problem. The students will be expected to demonstrate a proficiency in formal, technical, and expressive means within the artwork. They will expand vocabulary and writing skills, while applying analytical skills. This class will require maintaining an art notebook. In addition, the students will create and maintain a body of work for a portfolio.

Art V (91470G)

Prerequisite: any three art classes

This course is designed as an independent study in which students continue to reinforce competence and confidence in their artwork. Students will be required to demonstrate mastery through a portfolio that shows concentration, breadth of experience, and technical skills. Students who enroll in Art V are generally planning to pursue visual arts as a major in college. This class will provide the students an opportunity to build a portfolio that includes some of the expectations of the college or university which they plan to attend.

AP Studio Art Information: The courses are yearlong and designed to provide students with a learning experience equivalent to that of an introductory college course in studio art foundation. Each course enables students to develop a body of work investigating a strong underlying visual idea in Drawing, 2-D Design, or 3-D Design that grows out of a coherent plan of action or investigation (i.e., a "concentration"). Students should be aware that these classes require advanced artistic technical knowledge and skills. There should be a commitment to rigorous completion of quality artwork inside and outside of class. Students will explore areas of personal quality within the artwork. They will determine and explore an area of concentration focusing on a personal visual interest or problem. The students will be expected to demonstrate a proficiency in formal, technical, and expressive means within the artwork. They will expand vocabulary and writing skills, while applying analytical skills. The classes will require maintaining an art notebook. In addition, the students will complete a body of work for the required AP Portfolio. Students will submit a portfolio to the College Board that demonstrates mastery of the skills and concepts in the area of concentration.

AP Studio Art: 2-D Design Concentration

Prerequisite: Art IV

This portfolio is intended to address two-dimensional (2-D) design issues. Design involves purposeful decision making about how to use the elements and principles of art in an integrative way. The principles of design (unity/variety, balance, emphasis, contrast, rhythm, repetition, proportion/scale, figure/ground relationships) can be articulated through the visual elements (line, shape, color, value, texture, space). They help guide artists in making decisions about how to organize an image on a picture plane in order to communicate content. Effective design is possible whether one uses representational or abstract approaches to art. For this portfolio, students are asked to demonstrate mastery of 2-D design through any two-dimensional medium or process, including, but not limited to, graphic design, digital imaging, photography, collage, fabric design, weaving, fashion design, fashion illustration, painting and printmaking. Video clips, DVDs, CDs and three-dimensional works may not be submitted. However, still images from videos or films are accepted. Links to samples of student work in the 2-D Design portfolio can be found at apcentral.collegeboard.com/studio2D. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

AP Studio Art: 3-D Design Concentration

Prerequisite: Art IV

This portfolio is intended to address sculptural issues. Design involves purposeful decision making about using the elements and

principles of art in an integrative way. In the 3-D Design Portfolio, students are asked to demonstrate their understanding of design principles as they relate to the integration of depth and space, volume and surface. The principles of design (unity/variety, balance, emphasis, contrast, rhythm, repetition, proportion/scale, and occupied/unoccupied space) can be articulated through the visual elements (mass, volume, color/light, form, plane, line, texture). For this portfolio, students are asked to demonstrate mastery of 3-D design through any three-dimensional approach, including, but not limited to, figurative or nonfigurative sculpture, architectural models, metal work, ceramics, glass work, installation, assemblage and 3-D fabric/fiber arts. There is no preferred (or unacceptable) style or content. Links to samples of student work in the 3-D Design portfolio can be found at apcentral.collegeboard.com/studio3D. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

AP Studio Art: Drawing Portfolio

Prerequisite: Art IV

The Drawing Portfolio is intended to address a very broad interpretation of drawing issues and media. Line quality, light and shade, rendering of form, composition, surface manipulation, the illusion of depth and mark-making are drawing issues that can be addressed through a variety of means, which could include painting, printmaking, mixed media, etc. Abstract and observational works may demonstrate drawing competence. The range of marks used to make drawings, the arrangement of those marks, and the materials used to make the marks are endless. There is no preferred (or unacceptable) style or content. Any work submitted in the Drawing Portfolio that incorporates digital or photographic processes must address issues such as those listed above. Using computer programs merely to manipulate photographs through filters, adjustments or special effects is not appropriate for the Drawing Portfolio. Links to student work in the Drawing portfolio can be found at apcentral.collegeboard.com/studio drawing. This course receives **advanced** weighted credit, if the student sits for the corresponding College Board exam.

Introduction to Plant Systems (80070G)

Grade Level: 9, 10, and 11

The course location will be Windsor High School with a maximum enrollment of 20. Students develop competencies in each of the major areas of the Plant Systems career pathway including applied botany, plant propagation, plant care and selection. Instructional content also includes an introduction to the various divisions of the plant systems industry. Students learn agricultural mechanics applicable to plant systems. As with all agriculture courses, students will be exposed to principles of leadership and opportunities within student organizations along with Supervised Agricultural Experiences opportunities.

Horticulture Sciences (80340G)

Grade Level: 9, 10, and 11

The course location will be Windsor High School with a maximum enrollment of 20. In this course, students develop the necessary knowledge, skills, habits, and attitudes for entry-level employment and advancement in areas such as floriculture, landscape design, greenhouse operation, nursery plant production, and turf management. They receive instruction in using soil and other plant-growing media and in identifying, propagating, and growing horticultural plants in the greenhouse and land laboratory. Instruction is provided in safety practices and leadership development.

Greenhouse Plant Production and Management (80350G)

Grade Level 10, 11 and 12

The course location will be Windsor High School with a maximum enrollment of 20. Students are taught the operating procedures for a greenhouse. Units of instruction include developing plant production facilities, science application in plant production, and identification of plants. Business management, leadership development, and marketing skills are emphasized to prepare students for careers in the greenhouse plant production and management industry.

Applied Agricultural Concepts (80730G)

Grade Level: 9-12

The course location will be Windsor High School. Students who have limited or no agricultural background or experience learn fundamental agricultural competencies needed for rural or urban living. Areas of instruction include meat grading and selection; maintenance of home appliances and equipment; and the study of plumbing, electrical wiring, and carpentry fundamentals. Teachers may incorporate additional competencies in the study of soil fertility and in cultural practices for shrubs, lawns, gardens, and fruit trees. The course emphasizes leadership development activities and participation in FFA activities.

Agriculture Production Technology (80100G)

Grade Level: 9-12

The course location will be Windsor High School with a maximum enrollment of 20. This course emphasized one or more areas of plant science, animal science, soil science, agricultural business management, and agricultural mechanization, based upon the student's employment objective. Local school divisions should select one of the following livestock enterprises: beef cattle, dairy cattle, swine, horses, or sheep. The competencies for the selected livestock enterprise are considered essential for the course. Supervised

occupational experience programs and leadership training are important parts of the course. When only single periods are provided, greater emphasis is placed on individualized instruction and supervised occupational experience programs. **This course will be double blocked.**

Livestock Production Management (80120G)

Grade Level: 10-12

The course location will be Windsor High School with a maximum enrollment of 20. This course includes instruction in agricultural mechanics, with emphasis placed on the application of mechanical skills to farm power and machinery, soil and water management, supervised farming programs, and leadership training. **This course will be double blocked.**

Information Technology (IT) Fundamentals (66700G)

Grade Level: 9, 10, 11

In this course students investigate career opportunities and technologies in four major IT areas: Information Services and Support, Network Systems, Programming and Software Development, and Interactive Media. Students will evaluate the impact of IT on other career clusters. The focus of the IT Fundamentals course is the introduction of skills related to information technology basics, Internet fundamentals, network systems, computer maintenance/upgrading/troubleshooting, computer applications, programming, graphics, Web page design, and interactive media.

Programming (66400G)

Students in the programming course explore programming concepts, use algorithmic procedures, implement programming procedures with one or more standard languages, and master programming fundamentals. Coding is used throughout the course. Graphical user interfaces may be used as students design and develop interactive multimedia applications, including game programs. In addition, students employ html or java script to create web pages. Students develop their employability skills through a variety of activities.

Advanced Programming (66410G)

Grade Level: 10, 11 and 12

Prerequisite: Programming

Building on their foundation of programming skills, Advanced Programming students use object-oriented programming to develop database applications, interactive multimedia applications including game applications, mobile applications, and Web applications. Students continue to develop their employability skills as they research pathways for continuing education and careers in the information technology industry and engage in various career-building activities.

Database Design and Management (66600G)

Prerequisite: (Recommended by VDOE) IT Fundamentals

Grade Level 10, 11 and 12

This course includes database design and Structured Query Language (SQL) programming. Students study database fundamentals, including database development, modeling, design, and normalization. In addition, students are introduced to database programming. Students gain the skills and knowledge needed to use features of database software and programming to manage and control access to data. Students will prepare for the first of two certification exams.

Advanced Database Design and Management (66618G)

Prerequisite: Database Design and Management

Grade Level: 11 and 12

Students study Java, a widely used object-oriented, class-based, general-purpose programming language, to create and manipulate database applications. Instruction will emphasize preparation for industry certification.

Design, Multimedia, and Web Technologies (66300G)

Grade Level: preference given to 11 and 12

In this course students develop proficiency in designing and creating desktop-published projects, multimedia presentations/projects, and Web sites, using industry-standard application software. Students apply principles of layout and design in completing projects. Students create portfolios that include a résumé and a variety of desktop-published, multimedia, and Web-site projects produced in the course. The cooperative education method is available for this course. This course has a dual enrollment option.

Economics and Personal Finance: Independent Study (61200IV)

In this course students learn how to navigate the financial decisions they must face and to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently, and inheritance. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible

citizenship and career. Student will complete the WISE Financial Literacy Certification Test. **This course will be completed online outside the traditional school day (i.e., student's home) using an online program. This course is graded on a Pass/Fail scale.**

Economics and Personal Finance: School Day (61200SV)

Grade Level: 12

In this course students learn how to navigate the financial decisions they must face and to make informed decisions related to career exploration, budgeting, banking, credit, insurance, spending, taxes, saving, investing, buying/leasing a vehicle, living independently, and inheritance. Development of financial literacy skills and an understanding of economic principles will provide the basis for responsible citizenship and career. Student will complete the WISE Financial Literacy Certification Test. **This course will be completed online at school with a mentor using an online program. This course is graded on a Pass/Fail scale.**

Culinary Arts I (82758G)

Grade Level: 10-12

The course location will be Smithfield High School with a maximum enrollment of 20. The Culinary Arts I curriculum provides students with the foundations for a comprehensive knowledge of the food service industry and with opportunities to build technical skills. Students examine and practice basic rules and procedures related to kitchen and food safety, kitchen sanitation procedures, and emergency measures. Students explore the purchasing and receiving of goods and study fundamental nutritional principles and guidelines. As they explore food-preparation techniques, students practice applying these techniques to the preparation and serving of basic food products. The curriculum places a strong emphasis on science and mathematics knowledge and skills. **This course will be double blocked.**

Culinary Arts II (82768G)

Prerequisite: Culinary Arts I

Grade Level: 10-12

The course location will be Smithfield High School with a maximum enrollment of 20. The Culinary Arts II curriculum provides students with continuing opportunities to acquire a comprehensive knowledge of the food service industry as well as to expand their technical skills. Students practice kitchen safety and sanitation, apply nutritional principles to food preparation and storage, perform a wide range of more advanced food-preparation techniques including garde manger and baking, refine their dining room serving skills, develop menus, perform on-site and off-site catered functions, and strengthen their business and math skills. The curriculum continues to place a strong emphasis on science and mathematics knowledge and skills. **This course will be double blocked.**

Nurse Aide I (83608G)

Grade Level: 11/12

The course location will be Smithfield High School with a maximum enrollment of 20. Nurse Aide I, offered as an occupational preparation course beginning at the 11th-grade level, emphasizes the study of nursing occupations as related to the health care system. Students study normal growth and development, simple body structure and function, and medical terminology and are introduced to microbes and disease. They receive elementary skill training in patient-nursing assistant relationships; taking and recording of vital signs; cardiopulmonary resuscitation; and bathing, feeding, dressing, and transporting of patients in hospitals and nursing homes. Limited on-the-job instruction in nursing homes and hospitals is part of the course. This course can be used as an introduction to practical nursing or to prepare the student for Nurse Aide II so that all competencies for a certified nursing assistant are met. **This course will be double blocked.**

Nurse Aide II (83628G)

Prerequisite: Nurse Aide I

Grade Level: 11/12

The course location will be Smithfield High School with a maximum enrollment of 20. Nurse Aide II is an occupational preparation course, emphasizing advanced skill training in areas such as catheter care, range of motion, bowel and bladder training, care of the dying, selected procedures for maternal and infant care, and admission and discharge procedures. Students learn diseases and body systems as related to advanced clinical care of the acute medical-surgical patient, the chronically ill, and the elderly. On-the-job instruction in a licensed nursing home is part of the course. Upon completion of the nurse aide program, the student is eligible to take the nurse aide certification exam that leads to employment as a certified nurse aide in hospitals and nursing homes. **This course will be double blocked.**

Engineering Explorations I (84500G)

Grade Level: 9, 10 and 11

In this course Engineering Explorations will enable students to examine technology and engineering fundamentals related to solving real-world problems. Students will be exposed to a variety of engineering specialty fields and related careers to determine whether they are good candidates for postsecondary educational opportunities in engineering. Students will gain a basic understanding of

engineering history and design, using mathematical and scientific concepts. Students will participate in hands-on projects in a laboratory setting as they communicate information through team-based presentations, proposals, and technical reports.

Engineering Analysis and Applications II (84510G)

Prerequisite: Engineering Explorations I

Grade Level: 10, 11 and 12

Engineering Analysis and Applications II is the second of a possible four-course sequence that will allow students to apply the engineering design process to areas of the designed world, explore ethics in a technological world, and examine systems in civil, mechanical, electrical, and chemical engineering. Students will participate in STEM-based, hands-on projects as they communicate information through team-based presentations, proposals, and technical reports.

Engineering Concepts and Processes III (84520G)

Prerequisite: Engineering Analysis and Applications II

Grade Level: 11 and 12

Engineering Concepts and Processes III is the third course of a four-course sequence that will enable students to solve real-world problems. This course focuses on building an engineering team, working with case studies, managing projects, applying logic and problem-solving skills, delivering formal proposals and presentations, and examining product and process trends. In addition, students continue to apply their engineering skills to determine whether they are good candidates for post-secondary educational opportunities in engineering. Students will participate in STEM-based, hands-on projects as they communicate information through team-based presentations, proposals, and technical reports.

Engineering Practicum IV (84530G)

Prerequisite: Engineering Concepts and Processes III

Grade Level: 11, 12

This course will enable students to examine technology and engineering fundamentals related to solving real-world problems. Students examine ethics and intellectual property and design a practicum project, a culmination of knowledge and skill gained in the previous engineering courses. In addition, students continue to investigate a variety of engineering specialty fields and related careers to determine whether they are good candidates for post-secondary educational opportunities in engineering.

Welding I (86728G)

Grade Level: 10 and 11

The course location will be Smithfield High School with a maximum enrollment of 20. Students are taught to use manual welding, cutting, and electrical arc welding processes to fabricate and join metal parts according to diagrams, blueprints, and specifications. Students will also learn all safety-related practices and techniques, including earning the OSHA 10 card. **This course will be double blocked.**

Welding II (86738G)

Grade Level: preference given to 11 and 12

The course location will be Smithfield High School with a maximum enrollment of 20. This course teaches advanced welding students how to fine-tune their craft and to perform welds in various positions, using multiple welding processes. Students prepare to pass relevant industry certifications. Welding is required by a wide variety of industries—anywhere fusible materials and high heat are needed to manufacture, repair, or alter products. Professional welders are in high-demand and can earn accordingly. **This course will be double blocked.**

Welding III (86748G)

Grade Level: preference given to 11 and 12

The course location will be Smithfield High School with a maximum enrollment of 20. This welding capstone course teaches the industry's emerging technologies and how to demonstrate gas tungsten arc welding (GTAW) and shielded metal arc welding (SMAW) pipe tests. Students are prepared to earn relevant industry credentials toward employment in production or manufacturing facilities. **This course will be double blocked.**

Building Trades I (85158G)

Grade Level: 9-12

The course location will be Windsor High School with a maximum enrollment of 20. The course introduces students to skills in the four core areas of residential construction: masonry, carpentry, electricity, and plumbing. Students emphasize safety by preparing to earn the OSHA 10 card as they build or repair entire residential structures, using a variety of materials and tools. **This course will be double blocked.**

Building Trades II (85168G)

Prerequisite: Building Trades I

Grade Level: 10-12

The course location will be Windsor High School with a maximum enrollment of 20. The course will provide students advanced skills in masonry, carpentry, electricity, and plumbing. The class prepares students to synthesize these valuable skills to build or repair complete residential structures, using a variety of materials and tools. **This course will be double blocked.**

Cosmetology I (85278G)

Grade Level: 10-12

Concentration Sequence: 8528

The course location will be Windsor High School with a maximum enrollment of 20. In this introductory course, students study hair, skin, and nails and their related care. Students are grounded in theory as they prepare to practice procedures in a clinical lab setting or classroom, using manikins for manipulative skill practice. The first-year course emphasizes personal safety, professionalism, and sanitation and disinfection of equipment and facilities. Students develop skills in shampooing and conditioning hair, as well as styling and cutting hair. They are introduced to chemical texture services and develop skills in manicure and pedicure procedures. **This course will be double blocked all year.**