

# 2020-2021 Course Offerings



The Northwest Career & Technical Academy is an extension of your high school where innovative educational opportunities are available. Programs offered will provide you with the skills, knowledge, and professional leadership training necessary for the workplace or continuing education through an apprenticeship, community college, or university. The Academy is tuition free for high school students; however some programs may have industry related costs/lab fees. Please see the Academy Catalog for full course descriptions, course requirements, high school credit equivalencies, and college credits. Apply online at [nwtech.k12.wa.us!](http://nwtech.k12.wa.us)

**Aerospace Manufacturing** prepares students for immediate employment in the aerospace and manufacturing industries by focusing on job ready skills based on industry standards. Students will fabricate, assemble, and repair structures using basic and advanced composite techniques and materials. Students will earn the prestigious Core Plus certification which includes skills in blueprint reading, material science, precision measurement, and aluminum riveting in our lab centric facility using various hand and stationary power tools. As with all Academy programs, soft skill training is a major focal point in developing highly employable individuals. (Anacortes Campus)

**Applied Medical Sciences** introduces students to the medical field, with an emphasis on knowledge and skills applicable to many medical occupations. Students explore medical careers in areas of interest, as well as in targeted high demand fields for future jobs. Students completing all course work and participating in a 50-hour clinical internship, will be eligible to become WA State Nursing Assistant Certified (NAC). Additionally, students will be able to test for the HIPAA certification. (Mount Vernon Campus)

**Automotive Services** provides the skills and the knowledge required for job entry in the automotive trade at the apprenticeship level or additional training in a career-technical institute. The course will consist of shop safety, shop organization and operation, theory and repair of engines, electrical systems, brakes, fuel systems, cooling systems, power trains, and suspension steering alignment. The students will make repairs on the automobile in these areas at the trade accepted standard. The students can supply their own projects or will be furnished a project to work on (Sedro-Woolley Campus)

**Aviation Technology** offers pathways into the aviation industry with a broad foundation in aviation science with hours of hands-on flight simulation and with practical experience electronics, and aerospace design and construction processes. It is intended to be an entry into a multitude of careers in the aviation and aerospace industries, including Airline Pilot, Aerospace Engineer, Unmanned Aerial Vehicle Operator, Air Traffic Controller, Aviation Maintenance Technician, and Aircraft Assembler. Students will have the opportunity to earn certifications in a private pilot ground school certificate, FAA knowledge test endorsement and Electronics I and II certification. (Meridian Campus)

**Construction** - Carpentry, Contracting, Plumbing, and Electrical develops the entry-level skills needed in residential electrical wiring, plumbing, carpentry and contracting. Students will learn about work-site safety, construction-based applied math, safe use of hand and power tools, blueprint reading, communication skills, employability skills, material handling, framing skills, and the basics of residential electrical and plumbing. The program helps students explore a variety of construction-related career opportunities, develops appropriate work readiness skills and prepares them to enter construction-related apprenticeships, post-secondary education programs or entry-level jobs. Workplace safety, tool usage and job-readiness skills will be over-arching themes throughout each unit. Post high school training opportunities or entry-level employment in residential construction or facility maintenance careers in residential settings. (Sedro-Woolley Campus)

**Criminal Justice** provides an overview of the criminal justice system focusing on law enforcement and the careers available in this growing employment field. Students will investigate the roles of local and state law enforcement agencies, corrections, and other supporting careers. CPR training, hazardous materials awareness, and the National Incident Management system are also included in this program. (Mount Vernon Campus)

The **Culinary Arts** and Restaurant Management program combines up to date hospitality industry approved curriculum with on the job training in a commercial setting open to the public. Students provide customer service, deal with production deadlines, and serve in actual job functions. Students receive instruction in professional expectations, food and workplace safety, kitchen and dining room procedures, customer service, food production and baking techniques, event planning and service, technical report writing, applied mathematics, nutrition, marketing, and introduction to management and leadership. (Mount Vernon Campus)

**Dental Assisting** prepares students to become Registered Dental Assistants through the State of Washington. Each student will experience hands-on learning offering valuable preparation for entry level chairside skills. The program will give the student an understanding of the different careers that available in the expanding field of dental profession. Areas of study include: Occupational Industrial Safety/Hygiene, Oral Anatomy, Microbiology, Dental Terminology, Radiography, taking Bite-wing x-rays, Basic Chair-side Skills,

Dental Equipment and Instrument Identification and Maintenance, as well as Sterilization and Disinfection and Head and Neck Anatomy. Student will be prepared to take the National Entry Level Dental Assisting exam. (Mount Vernon Campus)

**Drone and ROV Automation** provides students with the application of mathematical and scientific principles, development, deployment, operation and maintenance of autonomous vehicles - air, land and water. Students will explore the ethics, safety and regulations of autonomous vehicles, the unique navigation strategies, assembly, design and structure and how to plan, prepare and execute a mission. Students will engage in authentic problem solving including data collection, documentation, analysis and presentation to a real-world audience. (Anacortes Campus)

**Fire Science & EMS** instills the proud tradition of serving communities with self-less dedication. The honor of becoming a firefighter is one sought after by many but bestowed upon only a few. Training to become a firefighter is exciting and meaningful. The NCTA Fire Science and EMS program offers professional instruction, amazing facilities, and endless opportunities to not only learn the skills necessary to become a firefighter/EMT, but also the skills to be an integral part of a community emergency response team in your own neighborhood. Students earn their ICS 100 and 200 certificates from FEMA. Additionally, this course lays the groundwork so students can pursue their Firefighter I, Firefighter II, HazMat Operations, and EMT certificates upon turning 18 years of age. (Mount Vernon & Meridian Campuses)

**Marine Services** is a hands-on curriculum focused on the skills necessary for employment in the Marine industry. Students will learn about preservation and maintenance of vessel, manufacturing materials, marina operations, customer service, basic marine electrical, boat handling and navigation, boat trailers - usage & repair, gelcoat and fiberglass repair, introduction to marine propulsion and engines and the Washington Safe Boating program Certification as well as working through the American Boat and Yacht Council (ABYC) Marine Service Technology. Students wishing to continue in the marine field will be able to successfully transition into a variety of post-secondary options. (Anacortes Campus)

**Money & Business** prepares students interested in starting their own business or working in the fields of business, marketing, or sales. The course focuses on business, entrepreneurship, marketing, and personal money management. Students will also learn about social media marketing, sports & entertainment marketing, product placement in movies & TV, accounting, business communications, and business law. Students will complete many hands-on projects during the course. Major projects include creating a business plan, creating a new product, creating full marketing campaigns, and competing in a virtual business simulation. Students will also have the opportunity to join and compete in a CTE club as well as a hands-on experience during an internship at a local business. (Mount Vernon Campus)

**Veterinary Assisting** is designed for students interested in professions working with and caring for animals. Through hands-on learning and challenging academic coursework, students will develop the skills and knowledge necessary to obtain entry-level positions in a variety of animal care facilities, including veterinary hospitals, grooming shops, animal shelters, and boarding facilities. (Mount Vernon Campus)

**Video Game Development** explores the many facets of the video game development life-cycle: from asset creation to game design to coding. Students will learn to code in an industry-standard programming language, create their own 2D & 3D graphics, explore game design as part of a project team and combine these elements to create games using a professional game engine. With crossover credit options available, this could be the first step on the path to a career in computer science. Innovative students can return for a second year of self-driven studies, earning more credits for applying their skills in advanced software development areas. Students must have successfully completed the first year of study and shown evidence of being an independent worker. (Mount Vernon Campus)

**Welding** is an industry-based shop environment designed for the student who would like to develop a deeper understanding of metalworking as a foundation for continuing education or being in a job-ready market. Students are trained in the basic skills of welding, and cutting, shielded metal arc welding, gas metal and flux cored arc welding, gas tungsten arc welding, many other areas. Additionally, this program trains students in blueprint reading, math, layout and fit-up, and fabrication of a wide variety of projects. (Meridian Campus & Sedro-Woolley Campuses)

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apply! Go online!

Please check the website for current information. [nwtech.k12.wa.us](http://nwtech.k12.wa.us)  
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