

CAREER PATHWAY RESOURCE GUIDE

2021 EDITION



HOMELAND SECURITY
EMERGENCY MANAGEMENT | CENTER OF
EXCELLENCE

www.coehsem.com

Centers of Excellence Around Washington State

www.coewa.com



Center of Excellence for Aerospace and
Advanced Materials Manufacturing
Everett Community College
www.coeaerospace.com

Agriculture Center of Excellence
Walla Walla Community College
www.agcenterofexcellence.com

Allied Health Center of Excellence
Yakima Valley Community College
www.yvcc.edu/coe

Center of Excellence for
Careers in Education
Green River College
www.careersined.org

Pacific Northwest Center of Excellence
for Clean Energy
Centralia College
www.cleanenergyexcellence.org

Construction Center of Excellence
Renton Technical College
www.constructioncenterofexcellence.com

Center of Excellence for
Global Trade and Supply
Chain Management
Highline College
www.coeglobaltrade.com

Center of Excellence for Homeland
Security Emergency Management
Pierce College
www.coehsem.com

Center of Excellence for
Information and Technology
Bellevue College
www.coeforict.org

Northwest Center of Excellence for Marine
Manufacturing and Technology
Skagit Valley College
www.marinecenterofexcellence.com

Center of Excellence for Semiconductor &
Electronics Manufacturing
Vancouver, WA
<https://semewa.com/>

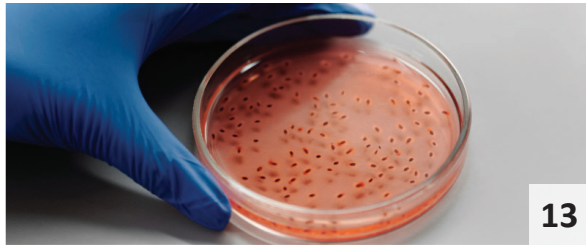
Centers of Excellence are flagship institutions that provide statewide support to business, industry, labor and the state's educational systems for the purpose of creating a highly skilled and readily available workforce critical to the success of the industries driving the state's economy and support of Washington families. Each Center focuses on a targeted industry that is built upon a reputation for fast, flexible, quality education and training programs. A targeted industry is identified as one that is strategic to the economic growth of a region or state.

The Center of Excellence for Homeland Security Emergency Management (HSEM) helps state community and technical colleges (CTC) prepare a skilled workforce to help maintain our national security, ensure an effective response to all-hazard events through education and training initiatives, and build disaster resilience in our communities. Our goal is to provide effective leadership and coordination that rapidly responds to the interests of educational institutions and workforce training needs of the HSEM business and industry sectors across the state. We accomplish this through working with a coalition of all 34 community and technical colleges, public agencies, and private sector organizations. The Center serves as a liaison between business and industry and the CTC system faculty and administration. Public and private organizations and businesses receive technical assistance, expertise, information and research on current regional, state and national security and economic development initiatives and workforce trends.

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A map with a list of all of the community and technical colleges throughout all of Washington state.

PATHWAYS

INTRODUCTION

The field of Homeland Security Emergency Management (HSEM) is broad and includes many areas of work responsibilities. These six career pathways are groups of shared skills and responsibilities of occupations in this field. Each pathway addresses a different career cluster within the program area of Homeland Security Emergency Management.



CRIMINAL JUSTICE

The Criminal Justice pathway includes the processes and interactions that occur between the police, courts, and correctional services.



CYBERSECURITY

Those who pursue the Cyber Security pathway will develop and use the skills necessary to detect, document, and counter virtual security threats.



EMERGENCY MEDICAL AND HEALTH SERVICES

The pathway of Emergency Medical and Health Services deals largely with the performance of basic life-saving skills.



HOMELAND SECURITY EMERGENCY MANAGEMENT

The pathway of Homeland Security Emergency Management is comprised of individuals who are ready to respond to emergency situations such as natural disasters or public health threats.



FIRE SERVICES

The Fire Service pathway deals with things like fire protection, fire prevention planning, fire education, and emergency preparedness.



OCCUPATIONAL HEALTH AND SAFETY

Occupational Safety and Health professionals work to prevent accidents and health hazards to workers, the community, and the environment.

Statement of Clarification & Accuracy: The programs and degrees in this guide are offered by the community and technical colleges in Washington State. Every effort was made to ensure that this guide is complete and accurate. Despite all efforts to have an exact and comprehensive guide, it may contain inaccuracies. These errors should not negatively reflect the included programs, organizations, or individuals. To report inaccuracies, please contact the Center of Excellence for Homeland Security Emergency Management at: KHale@pierce.ctc.edu

WASHINGTON STATE SKILLS CENTERS

An illustration of a person with dark hair, wearing a grey long-sleeved shirt, dark blue pants, and orange shoes. They are standing on a grey step ladder, reaching up with both hands towards the word 'CENTERS' in the title. The background is a light blue sky with a large, stylized white cloud that has a blue outline. The title 'WASHINGTON STATE SKILLS CENTERS' is written in large, bold, black, sans-serif capital letters, with the person's hands positioned near the 'C' and 'E' of 'CENTERS'.

Skills centers are regional secondary schools that serve high school students from multiple school districts. They provide instruction in current industry preparatory programs that are either too expensive or too specialized for school districts to offer individually. Currently, there are 15 core skill centers campuses throughout the state, and 3 additional branch campuses at other sites. Students may earn high school and college credits and industry certificates for completing the 1 to 2 year programs.

**Cascadia Technical Academy
Vancouver, WA**

www.cascadiatechnicalacademy.org

- Aviation Technology (Unmanned Aerial Vehicle Operator)
- Criminal Justice
- Fire Science
- Hospitality & Tourism
- Information Technology Systems, Service & Support



**Columbia Basin Technical Skills Center (CBTECH)
Moses Lake, WA**

<https://cbtech.misd161.org/>

- Automated Manufacturing and Design
- (Engineering) Drone
- Criminal Justice



**NewMarket Skills Center
Tumwater, WA**

<http://newmarketskills.org>

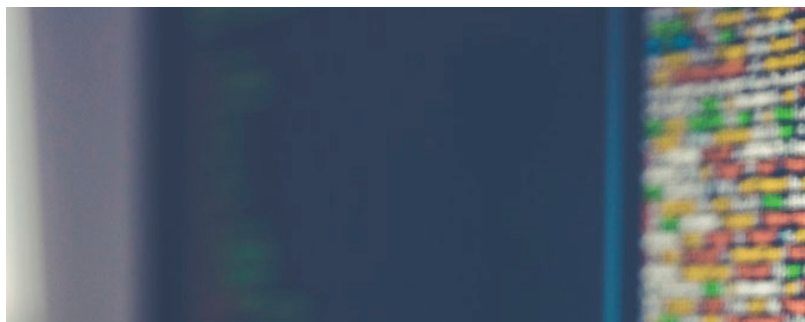
- Criminal Justice
- Firefighting & EMS Careers



**Northeast Washington Technical Skills Center (NEWTECH)
Spokane, WA**

<https://www.spokaneschools.org/newtech>

- Criminal Justice (Law Enforcement)
- Drone Manufacturing and Aviation Science
- Energy and Power
- Translation and Interpretation



**Northwest Career & Technical Academy
Mt Vernon/Anacortes WA**

<http://www.nwtech.k12.wa.us>

- Aviation Technology
- Criminal Justice
- Drone & ROV Automation
- Fire Science & EMS





Pierce County Skills Center Puyallup, WA

<https://www.bethelsd.org/Domain/4376>

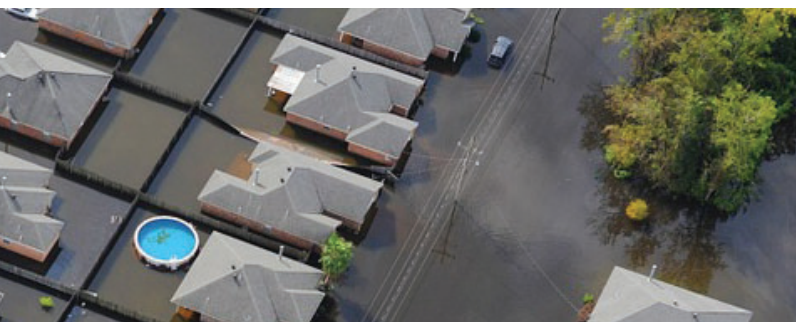
- Criminal Justice
- Fire Science & Emergency Services
- IT & Cybersecurity



Puget Sound Skills Center Burien, WA

<http://www.highlineschools.org/Page/1887>

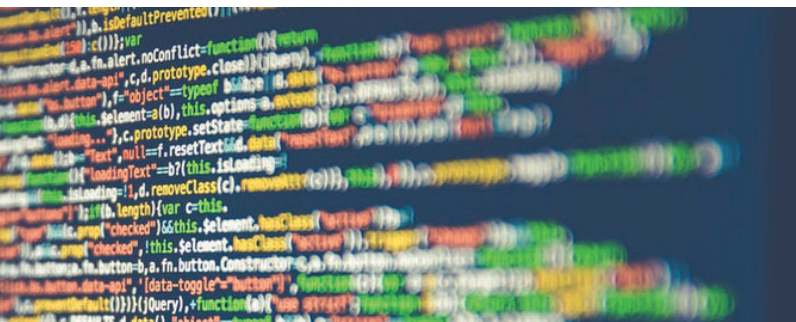
- Aeronautical Science Pathway (Unmanned aerial systems)
- Criminal Justice Training
- Fire & Emergency Services
- Translation & Interpretation



Seattle Public Schools Skills CENTER Seattle, WA

<http://myseatech.org>

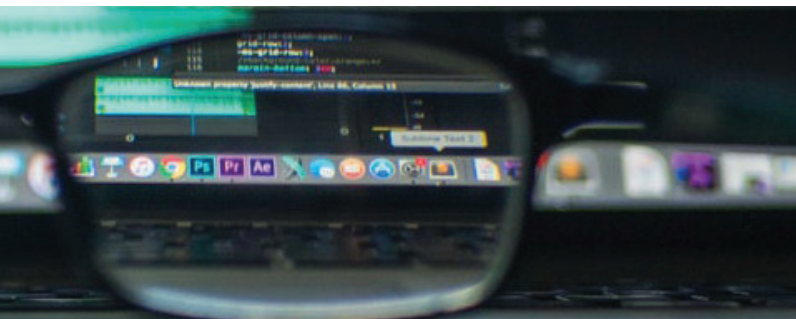
- Criminal Justice



Sno-Isle TECH Skills Center Everett, WA

<http://www.snoisletech.com>

- Criminal Justice
- Electronics Engineering Technology
- Fire Service Technology
- Translation & Interpretation



Tri-Tech Skills Center Kennewick, WA

<https://tritech.ksd.org>

- Cyber Security/Computer Science
- Fire Fighting
- Law Enforcement



Washington Network for Innovative Careers Skill Center (WaNIC)
Kirkland, WA
<https://wanic.lwsd.org>

Firefighting
Forensics
Law Enforcement

Wenatchee Valley Technical Skills Center
Wenatchee, WA

<http://www.wenatcheeschools.org/wvtsc/>

Criminal Justice – Police Science
Fire Science

West Sound Technical Skills Center
Bremerton, WA

<http://wst.smapply.org>

Criminal Justice
Fire Science

Yakima Valley Technical Skills Center (YV-Tech)
Yakima, WA

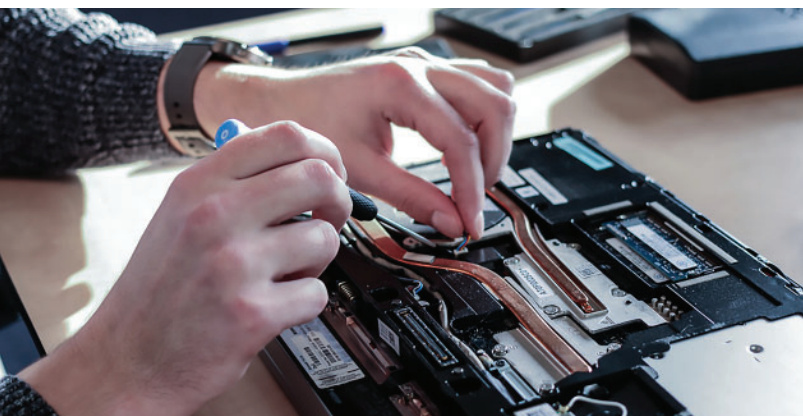
<http://www.yvtech.com>

Aerial Vehicle Operation & Design
Computer Technician
Cybersecurity
Emergency Medical Services
Law Enforcement
Translation & Interpretation

Twin Harbor Skills Center
(Branch of NewMarket Skills Center)
Aberdeen, WA

<http://www.asd5.org/thsc>

Criminal Justice
Electrical Engineering & HVAC
Medical Assistant
Professional Medical Careers





OCCUPATIONAL CAREER CLUSTERS

A detailed list of all of our career clusters and degree options available.

CRIMINAL JUSTICE

Industry Description:

The Criminal Justice pathway includes the processes and interactions that occur between the police, courts, and correctional services. Whether it's the police that keep our streets and families safe, the advocates protecting the rights of victims, or the corrections officers that monitor our jails and prisons, public safety is greatly impacted by these professionals. Those who pursue this pathway will become a part of one of those three systems and enforce local, state, and federal laws within their own jurisdiction.

Program Overview:

The goal of a program in this pathway is to teach students to analyze and think critically about the practices, policies, procedures, and institutions that make up the field of Criminal Justice. Students will gain a strong understanding of the integral relationship between crime, justice, and society and will study crime prevention, law enforcement, and criminal justice ethics, the psychology of victims, and crisis de-escalation and intervention.

Graduates will develop skills in:

- Understanding criminal law in Washington State.
- Resolving conflict in a variety of situations.
- Analyzing how a case proceeds through the criminal justice system.
- Applying basic methods of police patrol, operations, and management.
- Apply basic investigative techniques for developing solutions to crime problems.
- Secure and process a crime scene, employing proper techniques of evidence gathering, searching, sketching and on-scene interviewing.

CAREER OPPORTUNITIES:

- Probation and Parole Officer
- Private Investigator
- Bailiff
- Police Officer
- Detective
- Security Guard
- Communication/Call Taker



List of colleges with degree options:

BELLEVUE COLLEGE

- Criminal Justice AAS-T

<http://www.bellevuecollege.edu>

BIG BEND COMMUNITY COLLEGE

- Criminal Justice AA&S-DTA, AAS

<http://www.bigbend.edu>

CENTRALIA COLLEGE

- Criminal Justice AA or ATA
- Crime Scene Investigation CP

<http://www.centralia.edu>

COLUMBIA BASIN COLLEGE

- Criminal Justice AAS

<http://www.columbiabasin.edu>

EVERETT COMMUNITY COLLEGE

- Criminal Justice AAS-T or AAS-DTA
- Cybercrime Investigation Cert

<http://www.everettcc.edu>

GRAYS HARBOR COLLEGE

- Criminal Justice AS-T, AAS-T, or CC
- Organizational Management BAS

<http://www.ghc.edu>

GREEN RIVER COLLEGE

- Criminal Justice AAS
- Law Enforcement CP
- Criminal Justice: Forensic Technology AAS

<http://www.greenriver.edu>

HIGHLINE COLLEGE

- Criminal Justice AAS
- Private Security Academy Cert

<http://justice.highline.edu>

LOWER COLUMBIA COLLEGE

- Criminal Justice AA-DTA, AAS, AAS-T
- Criminal Justice - Justice Administration &
- Corporate Security & Investigation Pathways AA-DTA

<http://lowercolumbia.edu>

PENINSULA COLLEGE

- Criminal Justice AAS, AAS-T, Certificate

<http://pencol.edu>

PIERCE COLLEGE

- Criminal Justice AAS, Certificate
- Explorer/Cadet-Pre-Law Enforcement Cert
- Crime Analysis and Investigation Certificate
- Criminal Justice Forensic Technician Cert

<http://www.pierce.ctc.edu>

SHORELINE COMMUNITY COLLEGE

- Criminal Justice AA-DTA, AAAS
- Child Advocacy Studies Certificate of Completion
- Criminal Justice Advocacy Certificate

<http://www.shoreline.edu>

SHORELINE COMMUNITY COLLEGE

- Criminal Justice AA-DTA, AAAS
- Child Advocacy Studies Certificate of Completion
- Criminal Justice Advocacy Certificate

<http://www.shoreline.edu>

SKAGIT VALLEY COLLEGE

- Basic Law Enforcement Reserve Academy
- Micro-Certificate
- Parks Law Enforcement Academy Certificate

<http://www.skagitedu>

SPOKANE COMMUNITY COLLEGE

- Criminal Justice AAS-T, AA
- Law Enforcement Certificate

<http://www.scc.spokane.edu>

SPOKANE FALLS COMMUNITY COLLEGE

- Criminal Justice BA, Minor, AA-DTA

<http://sfcc.spokane.edu>

WALLA WALLA COMMUNITY COLLEGE

- Criminal Justice AAS, AAS-T

<http://www.wvcc.edu/criminaljustice>

WENATCHEE VALLEY COLLEGE

- Criminal Justice AAS-T, ATS

<http://www.wvc.edu>

WHATCOM COMMUNITY COLLEGE

- Criminal Justice AS (Criminal Justice Emphasis)
- Criminal Justice Cert
- IT Networking – cybersecurity BAS

<http://www.whatcom.ctc.edu>



CORRECTIONS

Industry Description:

Graduates who concentrate in Corrections do such things as confine dangerous and aggressive individuals, prepare legal reports, search persons, subdue violent inmates, testify in court, and in some extreme cases, use deadly force. They also identify and understand correctional practices in the United States in relation to philosophies of punishment, sentencing practices, victim's rights, and institutional limitations.

Program Overview:

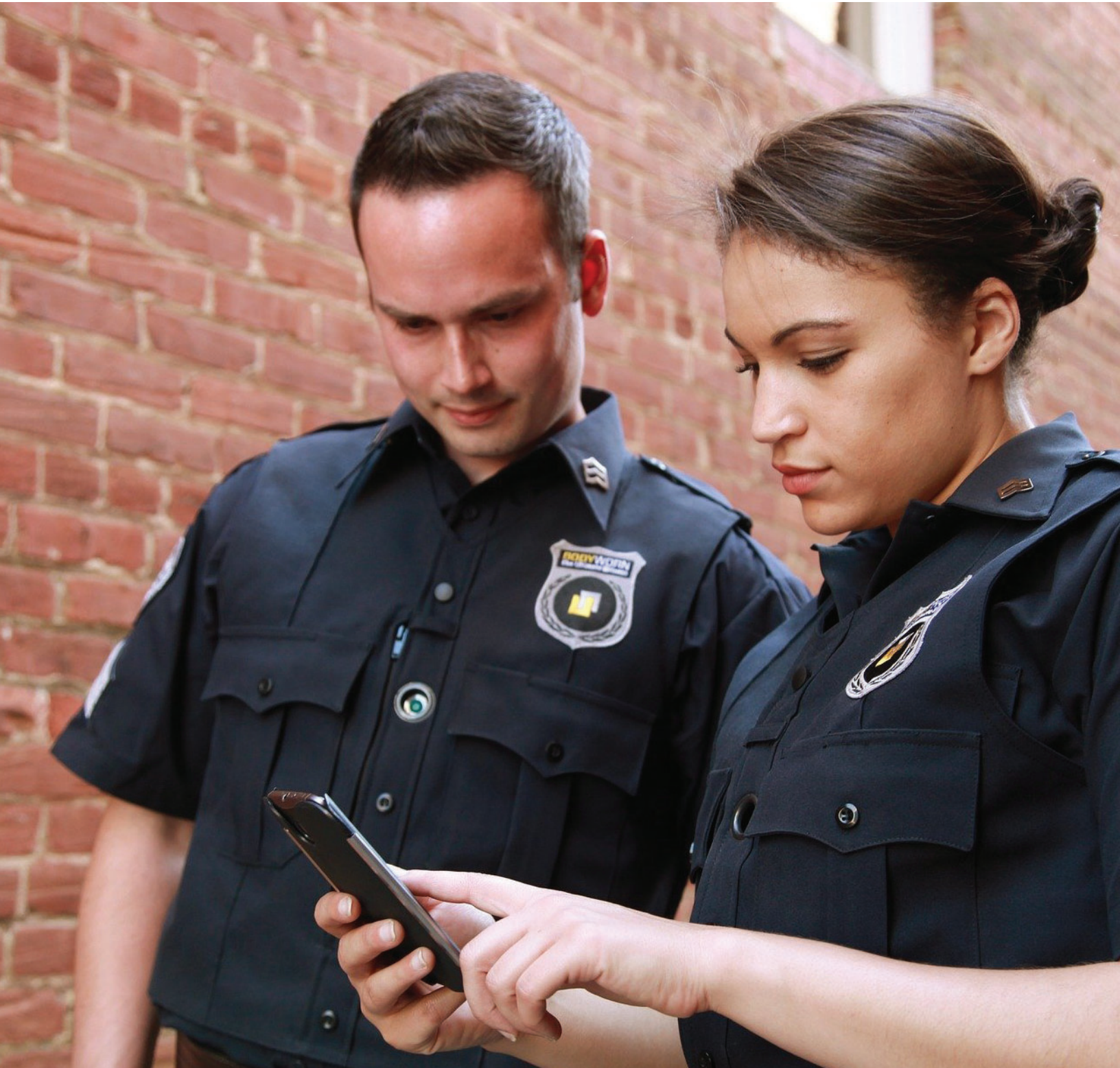
Programs in corrections will provide students with an understanding of the adult and juvenile criminal justice processes, its agencies and personnel. These programs will study the theory, concept and historical significance of the evolution of the criminal justice system.

Graduates will develop skills in:

- Documenting a variety of behaviors and events in a manner that is specific, clear, grammatically correct, culturally sensitive, and legally defensible.
- Applying basic methods of institutional management and rehabilitative practices.
- Applying basic theories for the causes of crime and dynamics of criminal behavior.
- Applying the laws regulating institutional conduct in a fair manner.

Career Opportunities:

- Uniform jail and prison corrections officers
- Prison Superintendents



List of colleges with degree options:

GRAYS HARBOR COLLEGE

- Criminal Justice AS-T, AAS-T, CC
 - Organizational Manag. BAS
- <http://www.ghc.edu>

GREEN RIVER COLLEGE

- Corrections CP
- <http://www.greenriver.edu>

WENATCHEE VALLEY COLLEGE

- Corrections Cert
- <http://www.wvc.edu>



FORENSICS

Industry Description:

Forensics is concerned with the recognition, identification, individualization, and evaluation of physical evidence using the methods of the natural sciences. Some of the major areas of this specialty include toxicology, odontology, trace evidence (hair, fibers, glass, etc.), ballistics, and explosives, accelerates, and fingerprint examination. Their research, examinations, and findings are used as evidence in legal cases.

Program Overview:

Programs in forensic science combine courses in investigation, evidence, criminal law and procedures, with science and math courses in chemistry, calculus, analytic geometry, and quantitative presentation, court testimony preparation, and some include training in the Automated Fingerprint Identification System (AFIS).

Graduates will develop skills in:

- Understanding the information that they have acquired to understand the correct approach for a forensic investigation in terms of data recovery, examination, use of instruments, and analysis.
- Identifying crime scene considerations of investigators for a variety of different crime scenes.
- Employing proper and appropriate evidence collection, preservation, documentation and transport techniques of all evidence identified at the crime scene.

Career Opportunities:

- Fingerprint Science
- Explosives, Ballistics, DNA
- Police Department Crime Scene Unit/Lab
- Forensic Technician
- Forensic Investigator



List of colleges with degree options:

BELLEVUE COLLEGE

- Molecular Biosciences BAS

<https://www.bellevuecollege.edu/>

CENTRALIA COLLEGE

- Crime Scene Investigation CP

<http://www.centralia.edu>

CLARK COLLEGE

- Forensic Science AAS

<http://www.clark.edu>

COLUMBIA BASIN COLLEGE

- Forensic Science AAS

<http://www.columbiabasin.edu>

EDMONDS COMMUNITY COLLEGE

- Digital Forensics Certificate
- Cyber Defense and Digital Forensics ATA
- Cyber Security Specialist Cert
- Computer Forensics CC (Cert of Completion)
- Cyber Defense Fundamentals CC
- Electronic Discovery Analyst CC
- Pen Testing and Ethical Hacking CC

<https://www.edcc.edu/>

GREEN RIVER COLLEGE

- Forensic Technology AAS
- Forensic and Fingerprint Technology CP

<http://www.greenriver.edu>

HIGHLINE COLLEGE

- Digital Forensics & Investigation Cert, AAS
- Cybersecurity and Forensics BAS
- Digital Forensics & Protection Cert
- Information Systems Project Coor, Computer Forensics Specialization AAS

<http://www.highline.edu>

PENINSULA COLLEGE

- Cybersecurity and Computer Forensics AAS, AAS-T, Cert

<http://pencol.edu/>

PIERCE COLLEGE

- Forensic Technician Cert

<http://www.pierce.ctc.edu>

SPOKANE FALLS COMMUNITY COLLEGE

- Computer Forensics/Network Security Certificate

<http://sfcc.spokane.edu/>

WHATCOM COMMUNITY COLLEGE

- Criminal Justice - Computer Forensics AS

<http://whatcom.edu/>

YAKIMA VALLEY COMMUNITY COLLEGE

- Crime Scene Investigation Cert

<http://www.yvcc.edu>

P A R A L E G A L



Industry Description:

Through formal education, training and experience, paralegals have knowledge and expertise regarding both the legal system and substantive and procedural laws which qualify them to do work of a legal nature under the supervision of an attorney. Paralegals work as members of legal teams in law firms, business, government, and social service organizations. They are trained to prepare legal documents, conduct research and investigations, interview clients and witnesses, prepare probate inventories, help attorneys in litigation, and organize and index documents.

Program Overview:

A program in this pathway aims to train the student in conducting legal research, developing trial notebooks and supporting trial work, preparing legal documents, summarizing depositions, writing detailed procedures for law office specialty areas, interviewing clients and performing investigative work, understanding procedures that involve decision making, and performing administrative functions.

Graduates will develop skills in:

- Understanding the basic principles of the American legal system, including the sources of law, jurisdiction, civil case procedure (including Local, State and Federal Rules), the structure of state and federal court systems, and the lawyers' role in the legal system.
- Understanding the role and responsibilities of paralegals in various specialized areas of law.
- Learn how to conduct effective factual and legal research.
- Preparing legal correspondence, memoranda, documents, exhibits, and in that content, properly interpret legal citation.
- Developing discovery plans, prepare cases for trial and capably assist in all courtroom proceedings.



Career Opportunities:

- Paralegal
- Legal Assistant
- Legal Secretary
- Title Examiner, Abstractor, Researcher
- Court, Municipal & License Clerk

List of colleges with degree options:

BELLINGHAM TECHNICAL COLLEGE

- Legal Administrative Assistant AAS-T, AAS, Cert
<http://www.btc.edu>

CENTRALIA COLLEGE

- Administrative Assistant ATA
<https://www.centralia.edu/>

EDMONDS COMMUNITY COLLEGE

- Paralegal ATA/AAS-T
- Paralegal - Advanced Paralegal Cert (Bachelor's degree or higher)
- Medical Paralegal Cert (for Registered Nurses)
- Legal Office Specialist ATA
- Electronic Discovery and Digital Forensics Specialist CC
<http://www.edcc.edu>

GREEN RIVER COLLEGE

- Court Reporting and Captioning BAS/ AAA /Cert
- Legal Administrative Assistant AAA
- Court reporting & Captioning-Scopist/Text Editor Cert
<http://www.greenriver.edu>

HIGHLINE COLLEGE

- Community Health & Wellness, Patient Advocate AAS
- Paralegal AAS
- Paralegal Plus CERT (Bachelor's Degree required)
<https://paralegal.highline.edu/>

LOWER COLUMBIA COLLEGE

- Community, Health and Wellness Advocate COC
<https://lowercolumbia.edu/>

PENINSULA COLLEGE

- Administrative Office Systems – Legal Option AAS
- Administrative Office Systems – Legal Assistant I Short Term Proficiency Cert
- Administrative Office Systems – Legal Assistant II Short Term Proficiency Cert
<https://www.pencol.edu/>

PIERCE COLLEGE

- Certified Paralegal (Online Voucher Included)
<https://www.pierce.ctc.edu>

SOUTH PUGET SOUND COMMUNITY COLLEGE

- Paralegal AAS
- Paralegal Plus Post-Bachelor Certificate
<http://www.spscc.edu>

SPOKANE COMMUNITY COLLEGE

- Clerical Assistant - Legal Clerical Assistant Cert
- Paralegal AAS, Cert
<http://www.scc.spokane.edu>

SPOKANE FALLS COMMUNITY COLLEGE

- Paralegal AAS, Preferred Pro-Cert
- Limited License Legal Technician Program
<http://sfcc.spokane.edu/>

TACOMA COMMUNITY COLLEGE

- Paralegal AAS
- Paralegal Preferred Pro-Certificate
- Limited License Legal Technician Program CERT
<http://www.tacomacc.edu>

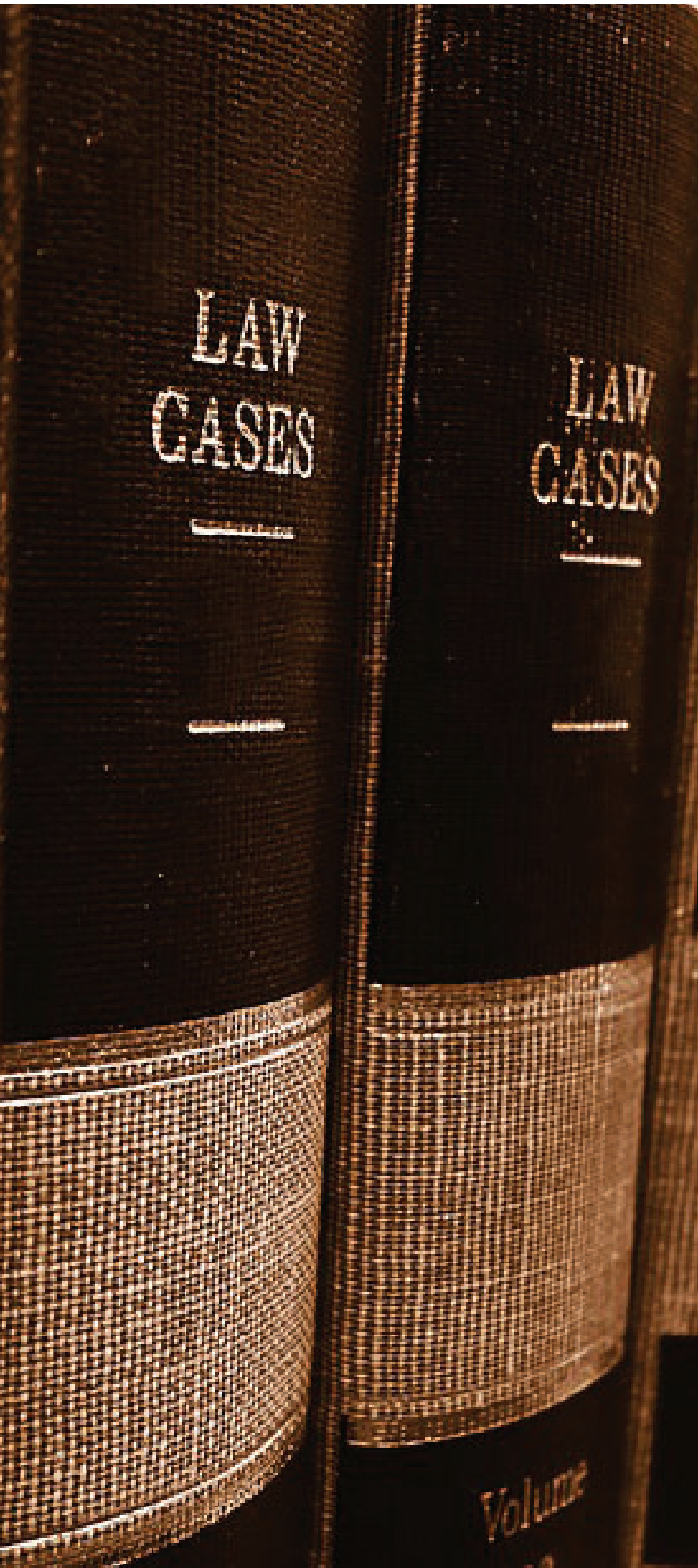
WHATCOM COMMUNITY COLLEGE

- Paralegal Studies AS, Cert
- Limited License Legal Technician Core Curriculum Paralegal Studies Cert
<http://www.whatcom.ctc.edu>

YAKIMA VALLEY COLLEGE

- Business Technology Legal Office Assistant AAS, Cert
- Business Technology Legal Receptionist Cert
- Business Technology Bilingual Legal Office Assistant AAS
<http://www.yvcc.edu>





PRE-LAW

Industry Description:

Pre-Law involves learning various multifaceted programs relating to how laws work, how they're made, how they apply to society and law in general. Students will learn the practicality of laws and how they are shaped by various sources.

Program Overview:

The Pre-Law program coursework varies depending on which role you are interested in pursuing. The pathway can vastly vary from legal assistant certificated to law school.

Graduates will develop skills in:

- Documenting a variety of behaviors and events in a manner that is specific, clear, grammatically correct, culturally sensitive, and legally defensible.
- Applying basic methods of institutional management and rehabilitative practices.
- Applying basic theories for the causes of crime and dynamics of criminal behavior.
- Applying the laws regulating institutional conduct in a fair manner.

Career Opportunities:

- Administrative Law Judges, Adjudicators, and Hearing Officers
- Arbitrators, Mediators, and Conciliators
- Judge
- Lawyer

List of colleges with degree options:

HIGHLINE COLLEGE

- Law AA planning sheet

<http://www.highline.edu>

LOWER COLUMBIA COLLEGE

- Pre-Law Focus AA-DTA

<https://lowercolumbia.edu/>

NORTH SEATTLE COLLEGE

- Equity & Social Justice AA-T

<https://www.northseattle.edu>

OLYMPIC COLLEGE

- Pre-Law AA

<http://www.olympic.edu>

SHORELINE COMMUNITY COLLEGE

- Political Science Pre-Major AA-DTA

<https://www.shoreline.edu/>

SOUTH SEATTLE COLLEGE

- Political Science AA-DTA, AB-DTA, AS

<https://www.southseattle.edu>

WALLA WALLA COMMUNITY COLLEGE

- Political Science

<https://www.wvcc.edu>





Industry Description:

Those who pursue the Cyber Security pathway will develop and use the skills necessary to detect, document, and counter virtual security threats. This will be done through the use of various programs, networks and systems to safeguard information and protect the United States' security information system.

Program Overview:

A program in this pathway prepares students for careers involving the protection of information on computers against unauthorized access or modification of information. Curriculum content includes basic and advanced computer and networking skills, computer forensics, firewall implementation, intrusion detection system implementation, layered security design and implementation, virtual security processes and procedures, and introduction to security management, planning, and recovery.

Career Opportunities:

- Network Security Administrator
- Information Security Administrator
- Computer Forensic Analyst
- Digital Forensics Specialist
- Information Security Analyst

Graduates will develop skills in:

- Planning, coordinating and implementing secure networks.
- Administrative and technical strategies for mitigating and managing threats posed to information systems.
- Planning and executing an information security risk analysis and vulnerability assessment.
- Performing effective digital forensics investigations at the device and network levels.
- Understanding how to detect a network intrusion.
- Data protection and network hardening techniques.
- Digital evidence recovery.

List of colleges with degree options:

BATES TECHNICAL COLLEGE

- Computer Networking Systems Technician AAS
 - Cybersecurity AAS-T, AAS
 - Information Technology Specialist AAS, AAS-T
- <http://www.bates.ctc.edu>

BELLEVUE COLLEGE

- Business Intelligence Certificates
 - Information Systems AAS-T
 - Network Services & Computing Systems AAS-T, AA, Certificates
 - Data Analytics BAS
 - Healthcare Informatics BAS, CA
 - Information Systems and Technology Application Development BAS
 - Information Systems and Technology Business Intelligence BAS
 - Information Systems and Technology Cyber
 - Security & Systems Administration BAS
 - IT and Administrative Management BAS
 - List of various computer/IT certificates
- <https://www.bellevuecollege.edu>

BELLINGHAM TECHNICAL COLLEGE

- Computer Network Management Cert
 - Computer Network Support Cert
 - Computer Networking AAS, AAS-T, Cert
 - Computer Science DTA/MRP
 - Computer Software Support AAS, AAS-T
 - Computer Support Specialist AAS, AAS-T, Cert
 - Health Information Technology Cert
- <http://www.btc.edu>

BIG BEND COLLEGE

- Computer Science AAS, AAS-T, AAS-DTA, AS-T
 - Systems Administration AAS, AAS-T
 - List of various computer/IT certificates
- <http://www.bigbend.edu>

CASCADIA COLLEGE

- Networking Infrastructure Technology AAS-T
 - Security Support Technician Cert
 - Web Application Programming Technology(Web Emphasis)- AAS-T
 - List of various computer/IT certificates
- <http://www.cascadia.edu>

CENTRALIA COLLEGE

- IT Application Development BAS-IT:AD
- <http://www.centralia.edu>

CLARK COLLEGE

- Computer Support Specialist AAT CP
 - Cybersecurity BAS
 - Health Information Mgmt. and Medical Billing & Coding AAT, CP
 - Network Technology AAT, CA
 - List of various computer/IT certificates
- <http://www.clark.edu>

CLOVER PARK TECHNICAL COLLEGE

- Cybersecurity BAS
 - NOSS -Network Operations & Systems Security AAT, AAS-T, CERT
 - NOSS System Security Professional Cert
 - NOSS Network Administrator Cert
 - NOSS Server Administrator Cert
- <http://www.cptc.edu>

COLUMBIA BASIN COLLEGE

- Computer and Information Technology Cert
 - Computer Science AS-DTA/MRP
 - Cyber Security BAS, AAS, Cert
 - Database Administrator AAS
 - Information Technology AAS, BAS
 - Network Administrator AAS
- <http://www.columbiabasin.edu>

EDMONDS COMMUNITY COLLEGE

- Computer Forensics CC
 - Computer Information Systems - Intro to Network Security Cert
 - Computer Information Systems ATA
 - Cyber Defense and Digital Forensics ATA
 - Cyber Defense Fundamentals Cert
 - Cyber Security Specialist Cert
 - Digital Forensics Cert
 - Electronic Discovery Analyst Cert
 - Network Technology and Administration ATA
 - Pen Testing and Ethical Hacking Cert
 - Server Administrator CC
 - List of various computer/IT certificates
- <http://catalog.edcc.edu>

List of colleges with degree options:

EVERETT COMMUNITY COLLEGE

- Computer Information Technology ATA
- Computer Science AAS-DTA
- Computer Support Specialist Cert
- Cybercrime Investigation Cert
- Cyber Security Analyst Cert
- Industrial Network Security
- Information Technology AAS-T, ATA
- Network Administrator Cert
- Systems Administrator Cert

<http://www.everettcc.edu>

GREEN RIVER COLLEGE

- IT Data Analytics and Software Development AAS
- IT Cybersecurity and Networking BAS
- IT Adv. Network Administration and Security CP
- IT Fundamentals CP
- IT Network Administration and Security Cert
- IT Software Development BAS
- IT Systems and Security AAS-T

<http://www.greenriver.edu>

HIGHLINE COLLEGE

- Computer Science AA-DTA, AS-T
- Cyber Security and Forensics BAS
- Digital Forensics and Investigations AAS, Cert
- Digital Forensics and Protection Cert
- Information Systems Project Coordinator, Computer Forensics Specialization AAS
- Information Systems Project Coordinator, Database Design/Development Specialization AAS
- Information Systems Project Coordinator, E-Commerce Specialization AAS
- Information Systems Project Coordinator, Networking Specialization AAS
- Mobile Technology Expert AAS
- Network Security Engineer AAS
- List of various computer/IT certificates

<https://cis.highline.edu>

LAKE WASHINGTON INSTITUTE OF TECHNOLOGY

- Computer Science AA-DTA/MRP
- Computer Security & Network Technician AAS, AAS-T
- Network Support Technician CP
- Information Technology Computing and Software Development BAS, AAS, AAS-T
- Photonics Technology CP
- List of various computer/IT certificates

<http://www.lwtech.edu>

LOWER COLUMBIA COLLEGE

- Computer Science AS-T
- Information Technology Systems AAS

<http://www.lowercolumbia.edu>

NORTH SEATTLE COLLEGE

- Application Development AAS-T
- IT Controlled Electronics AAS, Cert
- Linux Network and Security Cert
- Network & Server Administration AAS, Cert
- List of various computer/IT certificates

<http://resources.northseattle.edu>

OLYMPIC COLLEGE

- Cyber Security CC
- Information Systems BAS IS
- IT– Security AAS-T
- IT – Software Development AAS-T
- Information Technology – Support Specialist AAS-T
- Technical Support CP, CR
- List of various computer/IT certificates

<https://www.olympic.edu>

PENINSULA COLLEGE

- Cyber Security and Computer Forensics AAS, AAS-T or Short Term Cert
- Computer Applications Technology AAS, AAS-T, Cert
- Information Technology - Systems Administrator AAS, AAS-T

<http://pencol.edu>



List of colleges with degree options:

PIERCE COLLEGE

- Computer Network Engineering AAS
- Computer Science AA-DTA
- Computer Systems Administration Cert
- Database Management & Design AAS
- Health Informatics & Integrated Technology AAS
- Healthcare Database Management & Design Cert
- Network Infrastructure Cert

<http://www.pierce.ctc.edu>

RENTON TECHNICAL COLLEGE

- Computer Network Technology AAS, AAS-T, CC
- Computer Science AAS, AAS-T, CC

<https://rtc.edu>

SEATTLE CENTRAL COLLEGE

- Network Design & Administration BAS, AAS-T, Short Cert
- Information Technology - Networking BAS, AAS-T
- Database Administration & Development Cert

<http://www.seattlecentral.edu>

SHORELINE COMMUNITY COLLEGE

- Computer Science & Software Systems AA-T, AA-DTA

<https://www.shoreline.edu>

SKAGIT VALLEY COLLEGE

- Computer Science AS-T, AA-DTA, DT/MRP
- List of various computer/IT certificates

<http://www.skagit.edu>

SOUTH PUGET SOUND COMMUNITY COLLEGE

- Cyber Security and Network Administration AAS
- Computer Support CP
- Medical Coding & Billing CP
- Computer Science AS DTA-MRP
- Information Technology Computer Support AAS
- Technology & Computers (non-credit)

<http://www.spcc.edu>

SPOKANE COMMUNITY COLLEGE

- Network Design and Administration AAS, Cert
- Health Information Management AAS
- List of various computer/IT certificates

<http://www.scc.spokane.edu>

SPOKANE FALLS COMMUNITY COLLEGE

- Computer Forensics/Network Security Cert
- Cyber Security BAS
- Computer Science AS-T DTA/MRP
- Cyber Defense Basic, Intermediate, Advance Cert
- IT Cybersecurity emphasis AAS

<http://sfcc.spokane.edu/>

TACOMA COMMUNITY COLLEGE

- Computer Science AS
- Network and Cyber Security AAS, Cert
- Health Information Management BAS
- Health Information Technology AAS
- IT Networking Information Systems & Technology BAS

<http://www.tacomacc.edu>

WALLA WALLA COMMUNITY COLLEGE

- Networking AAS Cert
- List of various computer/IT certificates

<http://www.wvcc.edu>

WENATCHEE VALLEY COLLEGE

- Computer Technology ATS
- List of various computer/IT certificates

<http://www.wvc.edu>

WHATCOM COMMUNITY COLLEGE

- Computer Information Systems AS
- Criminal Justice - Computer Forensics AS
- Cyber Security AAS-T
- IT Networking-Cybersecurity BAS

<http://www.whatcom.ctc.edu>

YAKIMA VALLEY COMMUNITY COLLEGE

- Computer Science AA-DTA/MRP
- IT Networking System Administrator BAS
- IT Networking - System Administration BAS
- IT Networking Administrator AAS
- IT Support Specialist AAS
- IT General AAS, Cert

<http://www.yvcc.edu>





Emergency Medical & Health Services

Industry Description:

The pathway of Emergency Medical and Health Services deals largely with the performance of basic life-saving skills which include: control of bleeding, stabilizing fractures, providing oxygen and other necessities to avoid the development or progression of shock, as well as transportation to the emergency room.

Program Overview:

A program in this pathway will provide lectures and hands-on practice and techniques in the areas of emergency care, bleeding and shock, soft tissue injuries, environmental emergencies, lifting and moving patients, cardiac arrest management, and more.

Graduates will develop skills in:

- Applying knowledge of anatomy and physiology to patient assessment and management in order to assure a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.
- Applying scene information and patient assessment findings to guide emergency management.
- Evaluation patients and all emergency treatment procedures short of those rendered by physicians.
- Assessing and recognizing illness or injury related to medical and traumatic causes.
- Providing basic life support as well as advanced life support measures to treat illness or injury.



Career Opportunities:

- Emergency Medical Technician
- Police, Fire, and Ambulance Dispatcher
- Emergency Room Technician

List of colleges with degree options:

BATES TECHNICAL COLLEGE

- Emergency Medical Technician-Basic (EMT-B) Cert
<http://www.bates.ctc.edu>

BELLINGHAM TECHNICAL COLLEGE

- Emergency Medical Technician Cert
<http://www.btc.edu>

BIG BEND TECHNICAL COLLEGE

- Medical Simulation AAS-T
<http://www.bigbend.edu>

CENTRALIA COLLEGE

- Emergency Medical Technician Cert
<http://www.centralia.edu/>

CLARK COLLEGE

- Emergency Medical Technician-Basic CC
- Health Information Assistant CP
<http://www.clark.edu>

COLUMBIA BASIN COLLEGE

- Advanced EMT Short-Term Cert
- EMT-Basic Short-Term Cert
- Paramedicine AAS
- Paramedic Cert
<http://www.columbiabasin.edu>

EDMONDS COMMUNITY COLLEGE

- Certified Medical Administrative Assistant CC
<https://www.edcc.edu/>

EVERETT COMMUNITY COLLEGE

- Emergency Medical Technician-Basic (EMT-B) Cert
<http://www.everettcc.edu/>

HIGHLINE COLLEGE

- Emergency Medical Technician Cert
- Community Health & Wellness-Global and Public Health AAS
<https://www.highline.edu/>

LAKE WASHINGTON INSTITUTE OF TECHNOLOGY

- Medical Simulation AAS-T
<https://www.lwtech.edu/>

NORTH SEATTLE COLLEGE

- Emergency Medical Technician-Basic CC
<https://www.northseattle.edu/>

PENINSULA COLLEGE

- Emergency Medical Technician - Basic Short Term Proficiency Cert
<http://pencol.edu>

PIERCE COLLEGE

- Emergency Medical Services AT
- Emergency Medical Services Cert
- Emergency Medical Technician Basic Cert
- Social Services/Mental Health Cert, AA
<http://www.pierce.ctc.edu>

SEATTLE CENTRAL COLLEGE

- Community Health and Education BAS
- Global Health AA, AB, AS
<http://www.seattlecentral.edu>

SHORELINE COMMUNITY COLLEGE

- Health Informatics & Information Management AAAS
- Environmental Health AS-T
- Public & Community Health AA-T, AA-DTA
<http://www.shoreline.edu>

SOUTH PUGET SOUND COMMUNITY COLLEGE

- Fire & Emergency Services Technology AAS
<https://spscc.edu/>

SPOKANE COMMUNITY COLLEGE

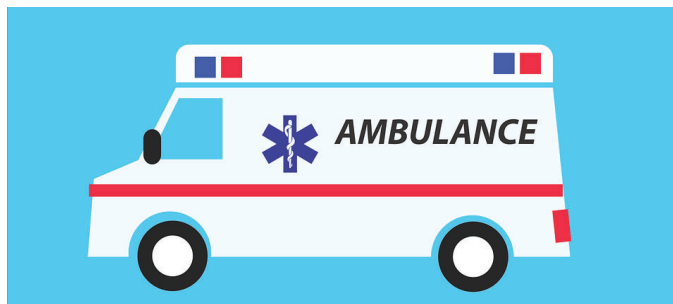
- Emergency Medical Technician-Basic Cert
<http://www.scc.spokane.edu>

TACOMA COMMUNITY COLLEGE

- Emergency Medical and Health Services AAS
- Emergency Medical Technician-Basic Cert
- Paramedic Cert
<http://www.tacomacc.edu>

WALLA WALLA COMMUNITY COLLEGE

- Emergency Medical Technician Cert
<http://www.wvcc.edu>





OCCUPATIONAL HEALTH & SAFETY

Industry Description:

Occupational Safety and Health professionals work to prevent accidents and health hazards to workers, the community, and the environment. They are responsible for the compliance with state and federal regulations regarding workplace safety. They collect data on safety and health conditions, monitor and measure hazards, and make recommendations that help prevent harm to workers, property, the environment, and the general public. They also respond to emergency preparedness and homeland security issues.

Program Overview:

A program in this pathway provides education and training for a career in the safety field and prepares students to become experts on national and state workplace safety and health standards. Core curriculum includes courses in safety and accident prevention, safety management, regulatory environment, worker's compensation and risk management, incident investigation, industrial security, and the handling of hazardous materials.

Graduates will develop skills in:

- Identification of risks and hazards in a variety of occupational settings.
- Understanding the history and evolution of terrorism including specific hazardous threats: chemical, biological, radiological, nuclear and explosive/energetic (CBRNE).
- Developing and implementing site-specific health and safety plans that include emergency response elements.
- Develop emergency response plans that can be used to prevent and/or mitigate incidents and accidents, assist organizational members after such incidents, and promote corrective action to prevent similar incidents in the future.

Career Opportunities:

- Hazardous Materials Remover Worker
- Safety Coordinator
- Safety Inspector
- Safety Manager
- Occupational Health and Safety Specialist
- Occupational Health and Safety Technician

List of colleges with degree options:

BATES TECHNICAL COLLEGE

- Occupational Therapy Assistant AAS

<https://www.batestech.edu>

BELLEVUE COLLEGE

- Health and Wellness BAS

<http://www.bellevuecollege.edu>

COLUMBIA BASIN COLLEGE

- Occupational Safety & Health Technology AAS

<https://www.columbiabasin.edu>

EDMONDS COMMUNITY COLLEGE

- Occupational Safety & Health Technician AAS-T, CERT
- Construction Safety Technician Cert
- APPRENTICESHIP PROGRAM

<http://www.edcc.edu>

GREEN RIVER COLLEGE

- Occupational Therapy Assistant AAS

<https://www.greenriver.edu>

LAKE WASHINGTON INSTITUTE OF TECHNOLOGY

- Occupational Therapy Assistant AAS-T

<http://www.lwtech.edu>

PIERCE COLLEGE

- Occupational Safety and Health AAS-T
- Construction Safety Technician Cert

<http://www.pierce.ctc.edu>

SHORELINE COMMUNITY COLLEGE

- Environmental Health AS-T

<http://www.shoreline.edu>

SPOKANE FALLS COMMUNITY COLLEGE

- Occupational Therapy Assistant AAS

<http://sfcc.spokane.edu>

WALLA WALLA COMMUNITY COLLEGE

- Industrial First Aid IFA Courses

<http://www.wwcc.edu>

WENATCHEE VALLEY COLLEGE

- First Aid & CPR

<http://wvc.edu>





HOMELAND SECURITY EMERGENCY MANAGEMENT

Industry Description:

The pathway of Homeland Security Emergency Management is comprised of individuals who are ready to respond to a natural disaster, public health threat, wartime, technological disaster, hostage situation or other emergency situation. They do so by coordinating disaster response or crisis management activities, providing disaster preparedness training, and preparing emergency plans and procedures.

Program Overview:

Programs are designed to prepare the next generation of emergency management and policy leaders with the knowledge and skills they need to improve outcomes in disasters of all types. The programs incorporate instruction in policy as well as planning and operational components of emergency management and homeland security. The curriculum provides policy foundations and advances students through core competencies in hazard identification as well as teaches them fundamentals in regards to risk and vulnerability assessment, terrorism, mitigation, preparedness, response and recovery, and planning for diverse populations.

Career Opportunities:

- Risk Management Specialist
- Crisis Response Manager
- Disaster Recovery Specialist
- Hazard Mitigation Officer
- Emergency Management/Preparedness Director
- Homeland Security Coordinator

Graduates will develop skills in:

- Understanding and analyzing the different phases in Emergency Management: Prevention, Mitigation, Preparedness, Response, and Recovery.
- Knowing how to integrate, coordinate, and collaborate with communities, agencies, and emergency management teams in order to facilitate crisis prevention, emergency management, continuity of operations, and problem solving.
- Providing expertise on critical guidelines, regulations, and systems utilized in the different phases of emergency management.
- Developing policies, procedures and protocols to allow seamless agency integration from prevention to incident response scenarios.
- Applying a solid foundation of knowledge and skills to assume leadership roles in emergency management, homeland security, and/or public policy.

List of colleges with degree options:

BIG BEND COMMUNITY COLLEGE

- Ag Technology & Management AAS (non transfer), AAS-T
- Agricultural UAS – (GIS courses) Certificate of Achievement

<http://www.bigbend.edu>

BELLINGHAM TECHNICAL COLLEGE

- Geomatics Engineering Technology (GIS) AAS

<http://www.btc.edu>

CASCADIA COLLEGE

- Homeland Security Emergency Management AAS-T, Cert
- Sustainable Practices BAS
- Environmental Technologies & Sustainable Practices AAS-T, Cert

<http://www.cascadia.edu>

COLUMBIA BASIN COLLEGE

- Agricultural Productions AAS

<https://www.columbiabasin.edu/>

EDMONDS COMMUNITY COLLEGE

- Emergency Management & Business Continuity AAS-T, Cert
- Environmental Science AS-T

<https://www.edmonds.edu>

GREEN RIVER COLLEGE

- Aeronautical Science BAS
- Aviation Technology – Airline Dispatcher CC
- Aviation Technology – Aviation Operations MC
- Environmental Science AS-T
- Natural Resources – Forest Resources Management BAS, AAS
- Natural Resources - Park Management AAS
- Natural Resources - Water Quality AAS
- Natural Resources- Geographic Information System AAS
- Wastewater Technology AAS
- Water Distribution Technology CP
- Water Supply Technology AAS
- Municipal Wastewater Treatment Technology CP

<http://www.greenriver.edu>

HIGHLINE COLLEGE

- Homeland Security Emergency Management AAS
- Introduction to Homeland Security Cert
- Global Trade and Logistics BAS
- International Business and Trade AAS, Cert
- Nonprofit Management Short-Cert
- Sustainable Agriculture & Food Security AAS, AAS-T, Cert

<http://www.highline.edu>

LAKE WASHINGTON INSTITUTE OF TECHNOLOGY

- Transportation, Logistics, & Supply Chain Management BAS

<http://www.lwtech.edu>

NORTH SEATTLE COLLEGE

- Environmental Science AA, AA-DTA, AB-DTA, AS tracks

<http://www.northseattle.edu>

OLYMPIC COLLEGE

- Homeland Security Emergency Management AAS-T, CC
- Technical Design – GIS Technology CP, CC

<http://www.olympic.edu>

PENINSULA COLLEGE

- Homeland Security Emergency Management AAS
- Sustainable Agriculture & Food Systems Short term Cert

<http://pencol.edu>

PIERCE COLLEGE

- Homeland Security Emergency Management AAS-T, BAS, Cert
- Tribal Homeland Security Emergency Management Cert
- Environmental Science AA-DTA, AS-Track
- Geography AA-DTA,
- Information Studies AA-DTA

<http://www.pierce.ctc.edu>

RENTON TECHNICAL COLLEGE

- Land Surveying Technician/Geospatial Science Cert

<https://www.rtc.edu/>





List of colleges with degree options (continued):

SHORELINE COMMUNITY COLLEGE

- Environmental Studies AS-T
- International Trade CC
- International/Global Studies Pre-Major AA-DTA
- Purchasing and Supply Chain Management AAAS, CP, CC
- Sustainable Purchasing Supply Chain Management CC
- Purchasing and Contract Management CC
- Supplier Relations and Logistics CC

<https://www.shoreline.edu/>

SKAGIT VALLEY COLLEGE

- Geographic Information Systems Certificate, MC, CERT
- Environmental Sustainable Agriculture Education AAS-T

<http://www.skagit.edu>

SOUTH SEATTLE COLLEGE

- Environmental Science/Studies AA-DTA, AB-DTA, AS track

<http://www.southseattle.edu>

SPOKANE COMMUNITY COLLEGE

- Agriculture Business/Technology AAS, Cert
- Natural Resource Management (Forestry) AAS
- Natural Resources Technologies in Geographic
- Information Systems Cert
- Parks and Recreation AAS
- Wildlife and Fisheries AAS
- Water Science AAS
- Water and Wastewater Cert

<http://www.scc.spokane.edu>

TACOMA COMMUNITY COLLEGE

- Actuarial Science AA-DTA
- Business & Logistics (Global Logistics Concentration) Cert
- Business & Logistics (Global Transportation & Secure Logistics) Cert
- Environmental Sustainability AA-DTA

<http://www.tacomacc.edu>

WALLA WALLA COMMUNITY COLLEGE

- Agriculture – Integrated Agricultural Systems AAS, AAS-T, Cert
- Agriculture Technology & Production Management AAS-T
- Watershed Management Earth Science AAS-T
- Watershed Management Wildlife Ecology &
- Conservation AAS-T

<http://www.wvcc.edu>

WENATCHEE VALLEY COLLEGE

- Gaming Operations Supervisor Cert
- Tribal Gaming Management Cert
- Outdoor Recreation Management AAS-T

<http://www.wvc.edu>

YAKIMA VALLEY COMMUNITY COLLEGE

- Agribusiness AAS, AAS-T
- Geography AA-DTA

<http://yvcc.edu>



FIRE SERVICES

Industry Description:

Fire service professionals face a diverse and complex environment. Things like fire protection, fire prevention planning, fire education, emergency preparedness, coordination, resource economics, and many other issues need to be addressed and managed on a daily basis. The duties of the firefighter include extinguishing and controlling fires, performing rescue and evacuation work incidental to fire control, and aiding in response to accidents, natural disasters, and other incidents where human lives are threatened.

Program Overview:

A program in the Fire Science pathway will teach a student how to respond to emergencies and save lives, identify, stabilize and mitigate emergency situations, reduce loss of property and improve public safety. Instruction generally includes fire suppression, fire investigation, fire prevention, emergency and rescue systems, emergency response, officer training and coordination with other agencies.

Graduates will develop skills in:

- Developing logical and critical thinking strategies to evaluate/prevent fires, hazards, other emergencies and deploy resources in emergency operations
- Emergency rescue training
- Organizing fire ground operations
- Use the Incident Command System to manage a wide variety of planned and unplanned incidents.
- Demonstrate and appropriately use fire service equipment and procedures in conjunction with a variety of emergency response incidents.
- Utilize fire service leadership techniques to regulate personnel management, control discipline, train staff, perform strategic planning, and coordinate emergency or non-emergency activities.
- Utilize the principles and practices involved with planning, preventing and managing terrorist and natural disasters.

CAREER OPPORTUNITIES:

- Firefighter
- Fire Prevention and Protection Engineer
- Rescue Worker
- Fire Systems Technician
- Leadership Position in Fire Control
- Fire Investigator

List of colleges with degree options:

BATES TECHNICAL COLLEGE

- Fire Service AAS, AAS-T
- Fire Service Supervision AAS, CoT
- Fire Recruit Academy
- Fire Command & Administration AAS
- List of various Certificates

<http://www.bates.ctc.edu>

BIG BEND COMMUNITY COLLEGE

- Aircraft Rescue Fire Fighter CC
- Initial Aircraft Rescue Fire Fighter Program (ARFF) CC
- FAA Mandated Recurrent Live Fire Training CC
- ARFF Officer Development Class
- ARFF Crash Truck Operator Training

<http://www.bigbend.edu>

CLOVER PARK TECHNICAL COLLEGE

- Electrician Low Voltage Fire/Security AAT Degree, Cert

<http://www.catalog.cptc.edu>

COLUMBIA BASIN COLLEGE

- Fire Science AAS

<http://www.columbiabasin.edu>

EDMONDS COMMUNITY COLLEGE

- Fire Officer AAS-T, Cert

<http://www.edcc.edu>

EVERETT COMMUNITY COLLEGE

- Fire Science AAS-T, ATA
- Fire Academy CERT
- Certificates IFSAC, FFI, Haz-Mat Awareness & Operations

<http://www.everettcc.edu>

GREEN RIVER COLLEGE

- Natural Resources - Wildland Fire AAS

<https://www.greenriver.edu/>

PIERCE COLLEGE

- Fire Command and Administration AAS

<http://www.pierce.ctc.edu>

SKAGIT VALLEY COLLEGE

- Fire Protection Technology AAS
- Fire Service Administration AAS-T

<http://www.skagit.edu>

SOUTH PUGET SOUND COMMUNITY COLLEGE

- Fire and Emergency Services Technology AAS
- Certificates earned during degree:
- NFPA 1001, Firefighter I
- NFPA 1001, Firefighter II
- NFPA Hazardous Materials Operations
- NFPA 1002, Driver/Operator
- NFPA 1670 Awareness Level in trench rescue, confined space, and structural collapse
- NFPA 1670 Technician Level in rope rescue
- NWCGS Wildland Firefighter II
- Emergency Medical Technician - Basic

<http://www.spscc.edu>

SPOKANE COMMUNITY COLLEGE

- Fire Officer AAS, Cert
- Fire Science Technology AAS

<https://www.scc.spokane.edu/>

WALLA WALLA COMMUNITY COLLEGE

- Fire Science AAAS, Cert

<http://www.wvcc.edu>

WENATCHEE VALLEY COLLEGE

- Fire Science ATS

<http://www.wvc.edu>





UNMANNED & AUTONOMOUS SYSTEMS

Program Overview:

Unmanned Aircraft and Autonomous Systems, also known as drones, are vehicles that operate in the air remotely or autonomously without human intervention. UAS can be used in various ways, including, but not limited to, providing aid, doing surveillance work, as well as perform tasks that could be too dangerous for humans. Sectors such as military and defense, homeland security, and commercial sectors play a major role in the increase in demand for drones within the UAV market. When disaster strikes, drones can prove to be vital in situations that are dangerous or time sensitive.

Program Overview:

A program that prepares individuals to fly an unmanned aircraft systems (UAS) for personal use, and qualifies individuals to sit for the FAA Remote Pilot Certificate with small unmanned aircraft systems (sUAS) rating knowledge examination. Includes instruction in principles of unmanned aircraft system design and performance; aircraft flight systems and controls; airway safety and traffic regulations; and government rules and regulations pertaining to piloting unmanned aircraft.

Graduates will develop skills in:

- Mechatronics, sensor technologies, system trouble shooting, programming, data collection and management.
- Flight operations and mission planning, analysis of data and information using global positioning systems.
- Technical knowledge and hands-on skills, installation, fabrication, testing, maintain/repair computers, electronic systems, and robotic systems.
- Programming microcontroller based robots to perform navigation using various sensor inputs with feedback and control techniques.
- Work effectively as a team member and coordinate the activities with upstream and downstream operations.

CAREER OPPORTUNITIES:

- Law Enforcement and Security
- Precision Agriculture
- Supply Chain Automation & Management
- Fire Fighting
- Wildlife Management
- Forestry and Parks Management
- Energy Infrastructure Grid



List of colleges with degree options:

BATES TECHNICAL COLLEGE

Industrial Electronics & Robotic Technician Cert

<http://www.bates.ctc.edu>

BELLEVUE COLLEGE

Robotics and Artificial Intelligence AAS-T

<http://www.bellevue.college.edu>

BIG BEND COMMUNITY COLLEGE

Medical Simulation Cert

Agricultural Unmanned Aerial Systems Cert of Achievement

Unmanned Aerial Systems (UAS) Remote Pilot Cert of
Accomplishment I and II

<http://www.bigbend.edu>

CENTRALIA COLLEGE

Electronics, Robotics, & Automation AAS

<http://www.centralia.edu>

COLUMBIA BASIN COLLEGE

Agriculture Production AAS

<https://www.columbiabasin.edu/>

EVERETT COMMUNITY COLLEGE

Robotics FANUC Cert

<http://www.everettcc.edu>

GREEN RIVER COLLEGE

Unmanned Aerial Systems (UAS) AAS, Cert

Aeronautical Science: Flight Operations and Aviation
Operations

Management BAS

<http://www.greenriver.edu>

LAKE WASHINGTON TECHNICAL INSTITUTE

Electronics Technology AAS, AAS-T

Electronic Automation CC

Various Certificates

[http:// www.lwtech.edu](http://www.lwtech.edu)

NORTH SEATTLE COLLEGE

Industrial Automation and Electronic Controls Cert
IT Controlled Electronics AAS, Cert
Avionics Technician Cert

<http://www.northseattle.edu>

SHORELINE COMMUNITY COLLEGE

Manufacturing/Machinist Technology AAAS
Various related Certificates

<https://shoreline.edu>

SKAGIT VALLEY COLLEGE

Robotics course

<https://www.skagit.edu>

SOUTH PUGET SOUND COMMUNITY COLLEGE

\Architecture, Engineering, & Construction
Technology AAS, AAS-T

<http://www.spscc.edu>

SOUTH SEATTLE COLLEGE

Metal Robotics Technician Apprenticeship IAM/
Boeing employees only

<https://www.southseattle.edu>

SPOKANE COMMUNITY COLLEGE

Hydraulic & Pneumatic Automation Technician AAS, Cert

<http://www.scc.spokane.edu>

WALLA WALLA COMMUNITY COLLEGE

John Deere Technology AAS

<http://www.wwcc.edu>

WENATCHEE VALLEY COLLEGE

Engineering Technology BAS-ET, AAS-T, AAS-DTA

<http://www.wvc.edu>





MECHATRONICS

Industry Description:

Mechatronics refers to the skill sets needed in the automated manufacturing industry. Mechatronics incorporates the creation of simpler smarter systems for robotics, control systems, and electro-mechanical systems. Mechatronics is vital in the growth for automation and manufacturing.

Program Overview:

A program that prepares individuals to apply mathematical and scientific principles to design, development and operational evaluation of computer controlled electro-mechanical systems and products with embedded electronics, sensors, and actuators; and which includes, but is not limited to, automata, robots, and automation systems. Includes instruction in mechanical engineering, electronic and electrical engineering, computer and software engineering, and control engineering.

Graduates will develop skills in:

- A strong technical foundation in robotics
Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.
- Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- Considering the relative costs and benefits of potential actions to choose the most appropriate one.

CAREER OPPORTUNITIES:

- Biomedical engineer
- Solar technician
- Prosthetist
- Systems engineer
- Robotics engineer
- Automation engineer

List of colleges with degree options (continued):

BELLINGHAM TECHNICAL COLLEGE

- Industrial Maintenance & Mechatronics AAS, Cert
<http://www.btc.edu>

BIG BEND COMMUNITY COLLEGE

- Manufacturing & Process Technology AAS-T
- Mechatronics Cert
<http://www.bigbend.edu>

CENTRALIA COLLEGE

- Mechatronics new program coming 2021-2022 AAS
<http://www.centralia.edu>

CLARK COLLEGE

- Mechanical Instrumentation Automation AAT, CA
- Mechatronics Fundamentals CC
<http://www.clark.edu>

CLOVER PARK TECHNICAL COLLEGE

- Mechatronics Engineering Technology & Automation BAS
- Mechatronics AAS-T, AAT
- Fundamental Skills for Manufacturing & Engineering Cert
- Mechatronics Co-Op Cert A Power
- Mechatronics Co-Op Cert B Control
<http://cptc.edu>

EDMONDS COLLEGE

- Mechatronics and Automation Technology ATA
<http://www.catalogue.edcc.edu>

EVERETT COLLEGE

- Mechatronics ATA, Cert
- Robotics FANUC Certification
<http://everettcc.edu>

NORTH SEATTLE COLLEGE

- Mechatronics AAS
- Industrial Automation and Electronic Controls Cert
- IT Controlled Electronics AAS, Cert
- Avionics Technician Cert
<http://www.northseattle.edu>

RENTON TECHNICAL COLLEGE

- Mechatronics AAS, CC
<http://www.rtc.edu>

SHORELINE COMMUNITY COLLEGE

- Mechatronics AAAS, Cert
- Manufacturing/Machinist Technology AAAS
- Various related Certificates
<https://shoreline.edu>

SPOKANE COMMUNITY COLLEGE

- Mechatronics AAS
- Electronics Engineering Technician –
- Mechatronics pathway AAS
<https://scc.spokane.edu/>



Veteran Resources

The Center of Excellence for Homeland Security Emergency Management is committed to engaging the skills, talents and experience of our nation's veterans. This is being done through efforts to increase veteran employment opportunities, expand contracting opportunities for veteran-owned businesses, and enhance veteran engagement.



The Veterans' Employment and Training Service (VETS)

A web-based toolkit that is designed to assist veterans in their transition to civilian life and finding employment, as well as to assist and educate employers who have included these men and women in their recruitment and hiring initiatives.

For more info, visit: <http://www.dol.gov/vets/>

Tacoma-Pierce Co. Veteran & Business Service

The Tacoma-Pierce Co. Veteran & Business Service facilitates veteran employment across the business community, promotes the value proposition (veterans are a key business resource opportunity), and enable the military-to-civilian life transition to yield successful employment outcomes.

For more info, visit: <http://www.tacomachamber.org/content/veteran-and-business-service>

Post 9/11 GI Bill

Using the post 9/11 GI Bill, you can get up to 36 months of financial support for education and training for graduate and undergraduate degrees, vocational/technical training, correspondence training, licensing and national testing programs, and tutorial assistance to prepare you for a career in cyber security.

For more info, visit: <http://www.benefits.va.gov/gibillcontent/veteran-and-business-service>

Washington Procurement Technical Assistance Center

A portion of the Washington Procurement Technical Assistance Center is devoted solely to helping veteran owned businesses succeed at the federal or state level.

For more info, visit: <http://washingtonptac.org/veteran-owned-businesses/>

Veteran's Retraining Assistance Program (VRAP)

VRAP offers 12 months of training assistance for unemployed Veterans. You may qualify for up to 12 months of assistance at the full-time payment rate under the Montgomery GI Bill-Active Duty program.

For more info, visit: <http://benefits.va.gov/VOW/education.asp>

SCORE

is committed to helping veterans, service members and their families looking to start and grow small businesses with significant, long term success.

For more info, visit:

https://www.score.org/topics/veteran_guards_reservists



Resources for Women

Diversity encourages a culture where opinions can be brought together to develop solutions to solve the problems our nation faces today. Men and women approach these problems differently, respond differently to stress, and work differently with colleagues. Embracing both male and female approaches to problems is a key factor for organizational success. Women are underrepresented in the pathways associated with the Homeland Security Emergency Management career field, but there are many resources available to aid in changing this.



The Anita Borg Institute

This is a non-profit organization whose primary aim is to recruit, retain, and advance women in technology.

For more info, visit: <https://anitab.org/>

National Institute for Women in Trades, Technology & Science (IWITTS)

IWITTS helps educators nationwide to close the gender gap for women and girls in male-dominated careers - such as technology, trades and law enforcement. IWITTS also works with employers to assist them in integrating women successfully into their male-dominated workplace. In particular, IWITTS has worked extensively with law enforcement agencies.

For more info, visit : <https://www.iwitts.org/>

National Center for Women & Information Technology

This non-profit community comprises more than 450 prominent corporations, academic institutions, government agencies, and non-profits working to increase women participation in technology and computing. NCWIT helps organizations recruit, retain, and advance women from K-12 and higher education through industry and entrepreneurial careers by providing community, evidence, and action.

For more info, visit: <https://ncwit.org/>

WWIN (Washington Women in Need)

WWIN provides health and education grants to low-income women in Washington to help them improve their lives.

Visit their website at: <http://wwin.org/>

Women in Cyber Security (WiCys)

The Women in Cybersecurity (WiCyS) community raises awareness about the importance and nature of a cybersecurity career. WiCyS hopes to generate interest among students to consider cybersecurity as a viable and promising career option.

For more info, visit: <https://www.wicys.org/>

OMWBE (Washington State Office of Minority & Women's Business Enterprises)

OMWBE works to optimize and ensure equity and opportunity for small businesses owned by minorities, women, and the disadvantaged through education, certification, and outreach.

For more information, visit: <http://omwbe.wa.gov>

Women's Society of Cyberjutsu (WSC)

This is a non-profit passionate organization about helping and empowering women to succeed in the Cybersecurity field.

For more information, visit: <https://womenscyberjutsu.org/>

The Emergency Management Professional Organization for Women's Enrichment (EMPOWER)

A non-profit that started in 2005 to “help women advance their careers through networking, mentoring, and promoting educational opportunities in the field of emergency management.”

For more information, visit: www.empower-women.com

The International Network of Women in Emergency Management

According to the organization's website (<http://inwem.org>), it's “comprised of a network of international men and women leaders with a passion to create global emergency management systems, and partnerships which promote safer, resilient, sustainable, and prepared, diverse communities and elevate the status of women.”

Women in Homeland Security (WHS)

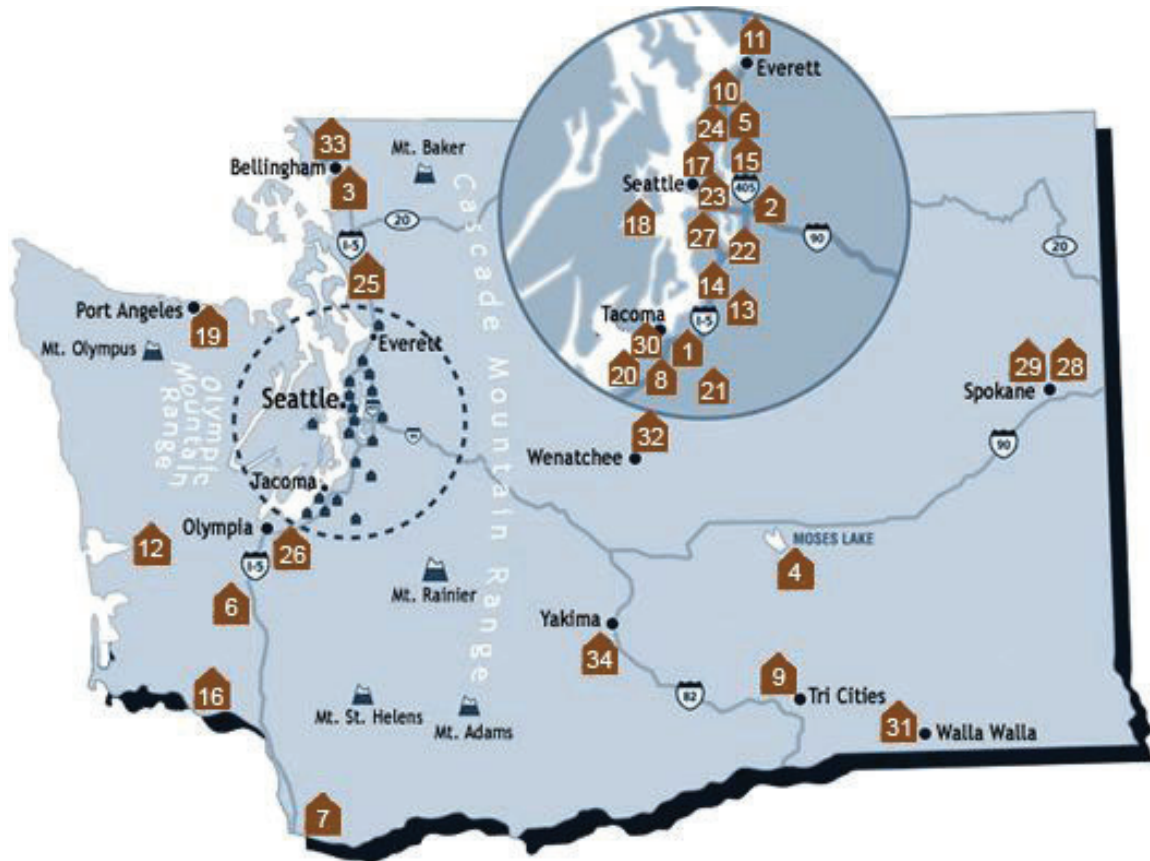
A non-profit founded in 2009 and has more than 800 public and private sector members. “WHS fosters a collaborative environment for homeland security and intelligence on critical homeland security topics confronting the nation.”

- www.womeninhomelandsecurity.com



WASHINGTON STATE COMMUNITY AND TECHNICAL COLLEGES

A MAP WITH ALL COMMUNITY AND TECHNICAL COLLEGES IN THE STATE



CTC list:

- | | | |
|----------------------------------|---|---|
| 1) Bates Technical College | 14) Highline College | 26) South Puget Sound Community College |
| 2) Bellevue College | 15) Lake Washington Institute of Technology | 27) South Seattle College |
| 3) Bellingham Technical College | 16) Lower Columbia College | 28) Spokane Community College |
| 4) Big Bend Community College | 17) North Seattle College | 29) Spokane Falls Community College |
| 5) Cascadia College | 18) Olympic College | 30) Tacoma Community College |
| 6) Centralia College | 19) Peninsula College | 31) Walla Walla Community College |
| 7) Clark College | 20) Pierce College-Fort Steilacoom | 32) Wenatchee Valley College |
| 8) Clover Park Technical College | 21) Pierce College-Puyallup | 33) Whatcom Community College |
| 9) Columbia Basin College | 22) Renton Technical College | 34) Yakima Valley Community College |
| 10) Edmonds Community College | 23) Seattle Central College | |
| 11) Everett Community College | 24) Shoreline Community College | |
| 12) Grays Harbor College | 25) Skagit Valley College | |
| 13) Green River College | | |