



Confluence serves as an intersection where we share events, interests, and important information about our Center and the state's all-hazard emergency management pathway programs.

Back to School Edition | Vol. 13



COE-HSEM Advisory Board Members - (Left) Kellie Hale, Chris Johnson, Linda Crerar, Patrick Knouff, Jamye Wisecup, Dan Guerrero, Shane Moore, Steve Lettic (Bottom) Marvin Ferreira, Lit Dudley



## In Memory of Jamye Wisecup

Jamye Wisecup passed away in Seattle on Tuesday, September 12th, 2019. In 2015, The Center first welcomed her onto the Advisory Board. While a board member, she supported and assisted in strengthening the Center's presence, both online and in person. Because of her efforts, 6 other community colleges around the state have offered HSEM Associate's Degrees through a collaborated model. Jamye was the heart and soul of emergency management in her community and made an impact on many people's lives. She was very dedicated to helping spread awareness and involvement in emergency management. Her dedication to promote emergency preparedness and her genuine unconditional caring for everyone made her the exceptional woman that she was. She will be truly missed.

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[www.coehsem.com](http://www.coehsem.com)

## History Lesson

In the aftermath of the World Trade Center terrorist attack, the Department of Homeland Security (DHS) developed standards for planning, responding to, and recovering from other similar terrorist attacks. Through Homeland Security Presidential Directive 8 (HSPD-8), the President tasked the Secretary of Homeland Security with developing a National Preparedness Goal to strengthen the all-hazards preparedness of the United States to prevent, respond to, and recover from major events. These included the adoption of the National Incident Management System (NIMS) and the Incident Management System (ICS). These and other initiatives included training of our first responders, other agencies and communities. The intent was to create an ability to respond to an incident and to be able to communicate and work under one standard system.

The Center of Excellence for Homeland Security Emergency Management (COE HSEM) was established in September 2004. Pierce College Fort Steilacoom was designated as the host college. The Center's mission was to infuse Homeland Security initiatives throughout the Community and Technical College system and to better prepare the system for response and recovery from a critical incident. The Center's target industries included all Community and Technical Colleges in Washington, other Centers of Excellence, the industries they represent and each of the ten Federal Department of Homeland Security designated responder agencies (law enforcement, emergency management and communications, emergency, medical and public health, Public Works, fire, hazardous materials, and other public agencies).

For more info visit: <http://www.coehsem.com/our-services/>



Advisory Board Members - (Left) Celia Taylor, Members of Nolan Wheeler's executive staff and faculty, Nolan Wheeler (VP of LCC), Lorraine Churchill at Lower Columbia College (LCC)

*"When my service in the Army ended, I still held to a strong need and desire for public service. While I was looking for courses of study at Pierce College, I discovered the HSEM degree program.*

*I knew that it was for me. After graduation with my BAS degree, I got a position with WA State Emergency Management where I have already had an impact on the future safety, security, and well-being of the people in Washington State.*

*The knowledge that I attained in that program is used every day. Additionally, I am able to help contribute to my co-workers work."*

- Shane Moore, one of the first graduate students of the BAS HSEM degree program and Center Advisory Board Member





# GOAL • PLAN • SUCCESS

## What shapes our today and prepares us for tomorrow?

The role of the Center of Excellence for Homeland Security Emergency Management has evolved over its 15 years to meet other critical incident demands and expanded to include preparedness for “all hazards” emergency management emergencies and disasters. Now, the goal for the Center is to provide effective leadership and coordination that rapidly responds to the interests of education institutions and employers in order to prepare a skilled workforce to help maintain our public safety and national security and build emergency and disaster resilience in our communities through educational and training initiatives. This will align with the sector and college programming; research and analysis of sector gaps, needs, and deliver meaningful products and services in our colleges, organizations, businesses and communities across the state that meets our Goal.

Our mission is to provide dynamic in-depth research, and sharing best practices. We work hard to inspire and support collaboration between education leaders and industry experts to drive change in a diverse and technology advancing industry. The Center supports the delivery of dynamic Homeland Security Emergency Management training, exercises and workshops statewide throughout the Community and Technical College system in collaboration with our community partners. Guided by our Advisory Board, public and private organizations and businesses, education and labor, the Center has delineated clear education and career pathways in HSEM and related fields to advance the state’s critical mitigation, preparedness, response and recovery needs.

*“Technology has impacted how we design and deliver courses... what we teach as a practical application of lessons learned in curriculum, but HSEM in general is still attempting to define itself as we evolve.”*

**- John Pennington  
HSEM Program Director**

## Envisioning the Future: Pathway Programs

The HSEM industry is both challenging and rapidly changing. Jobs within the industry are varied and becoming more specialized and technical.

About 40% of the jobs are in government services and there are jobs in health care, social assistance and HSEM jobs are continuing to grow rapidly in the private sectors (professional, industrial, scientific, trade/supply chain technical services).

Emergency management is a growing profession and is projected to continue growing at a rate of 10% to 14% from 2016 to 2026, according to O\*NET Online (created for the U.S. Department of Labor), which rates emergency management specialists as a “bright outlook occupation” in the labor market.

*“It is important to instructors to be up-to-date on what technology trends or changes are happening that will support or provide tools to those working in HSEM careers. Technology changes so quickly and there are many advances in informatics that support HSEM work, it is critical that instructors be able to help students navigate and stay up-to-date on what those advances are and where students may find helpful tools.”*

**- Curry Mayer  
Co-Chair of COE HSEM Board**



*Image by Port of Seattle*

## CRIMINAL JUSTICE (CJ)

There are twenty (20) programs across the state. This pathway includes the processes and interactions that occur between the police, courts, and correctional services. Whether it is 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.

The goal of CJ programs 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 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.

Criminal justice job titles are expected to grow rapidly in the next few years like Border Patrol and Transportation Security Administration (TSA), but some areas will grow at an average pace. There are all kinds of jobs related to criminal justice, from desk clerks and counselors to undercover police and SWAT team officers. There are a host of services and related systems in addition to these three segments, including counselors, probation officers, dispatchers, parole officers and social workers. Criminal justice operates at all levels of government and includes federal, state and local employees.

Jill Farman is an Associate Faculty at Big Bend Community College for its Psychology, Sociology, and Criminal Justice programs. She has worked in the Criminal Justice field for 20 years in multiple areas including Juvenile Corrections, Law Enforcement, Probation, and Corrections Education.

For more info visit: <http://www.coehsem.com/project/criminal-justice-pathway/>



## Jill Farman

Associate Faculty - Big Bend Community College

### **Technology: How has technology changed the way you are teaching and what are the challenges?**

Jill: Technology is an excellent tool within the classroom and beyond. Criminal Justice educators can find significant amounts of video and reports to assist us in the classroom when working with future criminal Justice professionals. Dash and Body Cam footage of Law Enforcement and Corrections activities is a very helpful tool to assist with the scenarios that students may encounter in their profession. The use of technology can be frustrating when things are not working the way we as educators want them to. We are lucky to have not only college staff, but also our students who are very knowledgeable and can assist as needed.

### **Online classes: How do you make it effective, so students retain and understand learnings (e.g. applied learning)?**

Jill: Again, technology is vitally important in how we interact with students in an online learning environment. We offer video lectures online as well as links to articles and/or video clips. I use video recording technology (Panopto) to post weekly check in videos on my Canvas classroom site. This helps students to feel connected to me as their human instructor and not just a computer screen. I also encourage my online students to stop by and introduce themselves to me during my office hours. It helps to build rapport and maintain the same sort of connection that we establish in face-to-face ground classes.

### **How important is it for online instructors to be up-to-date on the latest technology to help provide students with an effective learning environment? Have you dealt with instructors who oppose wanting to learn new technologies for his or her online courses?**

Jill: It is very important for educators to stay abreast of the latest technology applications that are available for our use. Many of our students are well versed in the use of technology. This use helps significantly with classroom engagement. I have taught in the corrections education setting this last year and I have seen firsthand how NOT having technology that is easily accessible to the students can be challenging for both the students and myself. It has challenged me as an educator to think outside of the box. We must push our academic creativity in times where technology fails us. This is where some of the best learning takes place. I have been lucky in the work I have done in post-secondary education that my mentors have always been very supportive of the use of technology in the classroom. I think we are in a time in our society where we must take advantage of the technology that we have access to.

### **Where do you see the degree program going in the next 3-5 years?**

Jill: I believe the Criminal Justice field is becoming a much more professional career choice and more than just a job. The degree program is expanding and bringing classes that challenge our students in their critical thinking and interpersonal skills. The degree program is also going to see more extension of the soft skills that are important in working in a profession that demands integrity and the ability to work with diverse and often challenging populations.





## CYBERSECURITY

There are twelve (12) community colleges with cyber security programs. 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 with various programs, networks and systems to safeguard information and protect the United States' security information system. 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 and system implementation, laid security design and implementation, virtual security processes and procedures, and introduction to security management, planning, and recovery. Based on surveys done employer responses show a strong cybersecurity employment growth which is expected to range from 4% to 21% over the next year.

For more info visit: <http://www.coehsem.com/project/technology-and-cyber-security/>

### Corrine Sande

Corrinne Sande, Whatcom Community College's Director of Computer Science and Information Systems, is also the director of the National Cybersecurity Resource Center called CyberWatch West. It is located on the Whatcom Community College campus in Bellingham, Washington. The regional center works to grow and strengthen the nation's cybersecurity workforce. She also serves as a Co-Principal Investigator of Catalyzing Computing and Cybersecurity in Community Colleges.



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

## EMERGENCY MEDICAL AND HEALTH CARE SERVICES (EM & Health Care)

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.

EM & Health Care programs 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.

This pathway provides lectures and hand-on practice. Fourteen (14) of our CTC colleges offer Emergency Medical Technician Certifications and many of our colleges offer Allied Health, Nursing, Vet Tech and Dental Hygiene which all require basic introduction to emergency and disaster curriculum as part of their training. The projected growth rate for EMS is 15% from 2016-2026. The annual average salary for EMT/EMTs is \$36,700 according to Learn.org.

For more info visit: <http://www.coehsem.com/project/emergency-medical-and-health-services/>



## FIRE SERVICE AND ADMINISTRATION

There are eight (8) colleges offering Fire Science or Fire Fighter first responder programs and only Pierce College offers the Fire Command and Administration Associates degree, which support incumbent workers to move into management and administrative positions. 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.

A Firefighter's main responsibility is fighting fires, but they are often dispatched to accident scenes where they perform rescues and emergency medical procedures. Some firefighters specialize in cleaning up at accidents involving hazardous material, while others concentrate on fighting forest fires. Candidates must have a high school diploma (or its equivalent) and pass written and physical tests. To prepare, individuals can take fire science classes through certificate or degree programs. Once hired, firefighters complete training at fire academies before going on the job. Often, they are also required to become certified emergency medical technicians or paramedics. Promotions to positions such as lieutenant, battalion chief or chief require years of experience and high performance levels on written tests. Those who become a battalion chief or higher usually hold a bachelor's degree.

For more info visit: <http://www.coehsem.com/project/fire-service/>



*“Building off of Pierce College’s Associate’s degree in Fire Command Administration, the college will be offering a bachelor of applied science degree in Fire Services Leadership Management. This degree will support the goals and objectives of the U.S. Fire Administration and FEMA. It is important to provide fire service professionals with the knowledge and skills they need to progress on their career pathway into supervisory, management, and administrative positions while meeting the succession planning needs of these career sectors”*

- Linda Crerar,  
Director for the COE-HSEM



*“Fire and emergency services are at the center of all hazards environment we find in our communities today.”*

- Robert Lord  
Pierce College Program Coordinator  
for the Fire Command Program







The State Board approved Pierce College for Community and Technical Colleges (SBCTC) this May 2019 to offer a **Bachelors of Applied Science in Fire Services Leadership and Management (FSLM) degree**. The BAS-FSLM degree program will open for registration starting winter quarter 2020 once it receives the official approval from the Northwest Accreditation Commission. (see below)

The Fire Services Leadership and Management degree is the third applied baccalaureate degree for Pierce College and the industry focus shifts to operations and risk management where advances training in leadership, organizational analysis, strategic thinking, risk management, and public policy is paramount. Registration is now available on the Pierce College website at [www.pierce.ctc.edu](http://www.pierce.ctc.edu).

Organizations employing firefighters include airports, governments of cities and towns, industrial sites and chemical facilities. According to the U.S. Bureau of Labor Statistics (BLS), the demand for firefighters is expected to grow by 7% between 2016-2026 ([www.bls.gov](http://www.bls.gov)). The BLS also reported that the median salary for firefighters was \$49,620 in May 2018.

## HOMELAND SECURITY-EMERGENCY MANAGEMENT (HSEM)

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



*"The increasing risks and natural hazards, the evolving terrorism threats and density of our nation, global interdependency, and climate change it is easy to envision a degree program that is increasingly valued and needed. I envision a rapid expansion of HSEM graduates filling positions in public for-profit medical and health facilities, private sector, schools, tribes, and non-profit organizations. It is difficult to imagine that this program and this profession reaching a pinnacle and beginning a decline over at least one full generation."*

**- John Pennington, Program Director for the Bachelors of Applied Science and Associates Degree in HSEM**

For more info visit:  
<http://www.coehsem.com/project/homeland-security-emergency-management/>



"I hope to see the degree program become the standard in Washington for those looking for an academic program that will provide a solid foundation for a career in Homeland Security or Emergency Management (HSEM).

We have worked very hard to ensure that students receive not only a solid academic grounding in HSEM, they are also required to complete a project which that connects them with current Homeland Security/Emergency Management professionals and allows them to do some work in the field prior to graduating.

**This is an important qualification for new job seekers and helps graduates be more competitive when looking for employment. "**

**- Curry Mayer, Co-Chair of the COE HSEM Advisory Board/Director of Emergency Management for the City of Bellevue**





## OCCUPATIONAL HEALTH & SAFETY (OSH)

Occupational health and safety technicians collect data on the health and safety conditions of the workplace. Technicians work with occupational health and safety specialists in conducting tests and measuring hazards to help prevent harm to workers, property, the environment, and the public. Occupational health and safety technicians work in a variety of settings, such as offices, factories, and mines. Their jobs often involve considerable fieldwork and travel; most work full time. Occupational health and safety technicians typically enter the occupation through one of two paths. Some technicians learn through on-the-job training; others enter with postsecondary education such as an associate's degree or certificate. The median annual wage for occupational health and safety specialists and technicians was \$69,370 per year in 2018. Employment of occupational health and safety technicians is projected to grow 8% from 2016-2026, faster than the average for all occupations.



For more info visit: <http://www.coehsem.com/project/occupational-safety-and-health/>

### Darren Linker

Director, Occupational Health and Safety Program for  
Edmonds Community College and Pierce College

When talking about the Certified Safety Specialist (CSS) apprenticeship program, Darren describes that it was designed to educate and train professionals wanting to work in any industry with a focus on workplace health and safety hazards, along with compliance issues. The CSS apprenticeship program is the first of its kind in the United States. After a lengthy development phase working in conjunction with sponsor Intuitive Safety Solutions, the CSS apprenticeship has placed three apprentices, with the first one now halfway through the program and doing well, and the second having just started in April 2019, and the third in May 2019.



*"Safety specialists typically came from other backgrounds and got drafted by their employers into taking on responsibility for compliance with state L&I and federal OSHA safety regulations, learning on the job with no specific training or education. In the past 10 years or so, the health and safety profession has come to be recognized as a distinct professional career path in its own right."*



## Intro to our State's Newest Program - Unmanned & Autonomous Systems (UAS)

This career pathway provides students with the knowledge and skills to be professional remote pilots and small UAS technicians. UAS Remote Pilot Certificate of Accomplishment is an increasing common tool in the workplace, and employers are now looking for people with traditional skills who can also utilize UAS in the workplace.

Big Bend Community College has a UAS Remote Pilot course where students can obtain a certificate. Byron Noel (pictured right) is the UAS Operations Coordinator at Big Bend CC.

Big Bend's UAS program serves as a central hub for industry trends, best practices, innovative curriculum, professional opportunities and a central location for unmanned and autonomous system community and technical college (CTC) programming in the state. Their website also includes information about federal regulations, drone pilot training with federal certification.



*“‘Drone Pilot’ is not a job on its own. The drone is a TOOL, which ties into many industries such as Agriculture, Commercial Aviation, Law Enforcement, Construction, Cinematography and Insurance. The UAS Cert. of Accomplishment is recommended for most people who have an interest in using UAS for work, but it is **HIGHLY** recommended that students take other associated classes if they have no other work experience to tie UAS into.*

*This certificate was designed with the working professional in mind, and covers all the critical aspects of UAS law, safety, and operations. The certificate is offered through hybrid instruction, with some classes being offered online and ending off with hands on instruction by our experienced UAS instructors. Classes are also offered outside of regular business hours.”*

**- Byron Noel**  
**UAS Operations Coordinator**

The UAS Certificate is available at other Community State Colleges. You can contact Byron at [ByronW@bigbend.edu](mailto:ByronW@bigbend.edu)



For more info visit: <https://www.bigbend.edu/academics/programs/unmanned-systems/>



# Acknowledgements

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## **Thank you for your support**