



National Environmental Health Science & Protection Accreditation Council

*Enhancing the education and training of students
in environmental health science and protection*

February 2020

In this newsletter you'll find important accreditation and policy updates, reminders of accreditation related deadlines, publications, scholarship and internship opportunities for EHAC students, stories from students excelling in school and in their EH careers and reports from colleagues "from the field."

Scholarship Deadlines:

February 28, 2020 - application deadline for AEHAP SRC Scholarship

March 15, 2020 - application deadline for AAS/NEHA Scholarship

Winter Greetings from Executive Director Leslie Mitchell

Dear Colleagues,

Critical problems related to environmental health (EH) are receiving a lot of attention in the headlines these days, from the most recent coronavirus disease to the ongoing challenges of Ebola, environmental health-related climate change problems, or discoveries of lead in water infrastructures nationwide. The United States and the world will continue to face a growing number of such complex problems. These will require professionals who are trained in environmental health, that is, experts responsible for "identifying, investigating, and controlling harmful environmental exposures to prevent related illness and injury."¹ The National Environmental Health Science and Protection Accreditation Council (EHAC) is the accrediting agency for undergraduate and graduate environmental health degree programs that prepare students to tackle such threats.

Some of these academic programs, however, are challenged by low enrollment, lack of administrative support and pressure to move programs toward a broader public health focus. Such a focus is an excellent supplement to EH programs, but not a substitute for rigorous science-based

EH training. EHAC is working with its professional partners to raise awareness about the imperative that EH students acquire foundational EH knowledge and skills.

In recent decades, the technology, techniques and methods for testing, assessing and addressing environmental health issues have significantly advanced. However, lagging is the understanding of academic administrations and politicians that STEM-based education grounded in hard science, statistics and math is critical to addressing major EH issues. EHAC accredited degree program graduates have hands-on field experience, relevant laboratory experience and foundational training in epidemiology, statistical methods and toxicology and are workforce ready to tackle these pressing problems.

EHAC Accreditation provides the following valuable outcomes for students and employers:

1. EHAC accredits programs that provide the foundational knowledge and technical skills required for graduates seeking STEM-based professional EH jobs.
 2. EHAC accreditation requires programs to incorporate significant lab-based and hands-on EH experience: a minimum of 180 hours of field experience is required. The practical requirement means employers will have job-ready employees already seasoned in the practicalities of the laboratory and field.
 3. EHAC accreditation requirements prepare graduates for many technical areas of employment in public health departments. A recent *Journal of Environmental Health* article reported the results of a survey of more than 1,700 EH professionals who worked in state, tribal, local and territorial (STLT) health departments.² The most prevalent job responsibilities of the respondents involved oversight of food safety and protection, public swimming pools, emergency preparedness and response, schools, on-site wastewater, and private and on-site drinking water. EHAC accreditation criteria address these as well as a
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majority of the remaining EH responsibilities cited in the article, as shown

TABLE 3

Percentage of Environmental Health Professionals Working in Various Programs in Health Departments in the United States (*n* = 1,735)

Environmental Health Program	%	Environmental Health Program	%
Food safety and protection	76	Healthy homes	20
Public swimming pools	57	Mobile homes	18
Emergency preparedness and response	47	Radon control	17
Schools	46	Animal control	16
Onsite wastewater (e.g., septic systems)	44	Hazardous waste disposal	16
Private or onsite drinking water	43	Land use planning	16
Hotels/motels	39	Pollution prevention	14
Vector control	38	Health-related facilities	13
Body art (tattoo)	36	Outdoor air quality	12
Day care/early child development facilities	34	Hazardous materials response	11
Special events/mass gatherings	31	Tobacco retailers	8
Campgrounds and recreational vehicles	30	Cosmetology businesses	6
Public drinking water systems	28	Noise pollution	6
Lead prevention	25	Collection of unused pharmaceuticals	5
Solid waste	25	Injury prevention	5
Smoke-free ordinances	24	Radiation control	5
Children's camps	22	Occupational health	4
Indoor air quality	22	Toxicology	4
Other recreational water (e.g., beaches)	21	Milk processing	3
		Poison control	2
		Other	28

below:³

4. Problem solving and critical thinking were cited in the “Uncovering Environmental Health” article as a “routine activity” by 82% of survey respondents. 57% included communicating risk to the public and 44% collect and analyze data as part of their routine duties.⁴ These competencies, along with risk analysis and risk reduction are core components of EHAC accredited degree programs. EHAC accreditation ensures these essential skills and

knowledge are gained from required lab-based coursework, topically related instruction and field experience.

5. EHAC accredited programs prepare graduates who will seek employment with states that require a REHS/RS credential. EHAC's EH science and STEM based requirements address the competencies-based testing provided by the National Environmental Health Association. (NEHA). Additionally, EHAC graduates can sit for the REHS/RS credential testing immediately upon graduation. Graduates of non-accredited programs must have two years of EH experience before they are eligible to take the exam.

According to "Uncovering Environmental Health," more than ¼ of EH professionals working in STLT health departments will be retiring in the next 5 years.⁵ A wealth of experience and knowledge will be lost as this professional turnover takes place, creating a need for a new, qualified cadre of EH graduates. Even as this need is growing, as mentioned above some EH programs are experiencing recruitment challenges, as well as competition with CEPH accredited general public health degree programs for students and financial support. The most EH recruitment success occurs via word of mouth exchanges among peers and face to face promotion of programs by recently graduated alumni. While these recruitment methods are time consuming, they are effective. Also EHAC is working with EH degree programs to explore creative structures that will serve to attract students to EH programs.

It is not necessary that environmental health and broad public health degree programs "compete." There is a place and need for both EHAC and CEPH accreditations. Neither replaces the other. CEPH accredits broad-based public health competencies in schools of public health. EHAC accredits foundational knowledge and technical skills required for graduates seeking STEM-based Professional EH jobs. One option that some schools of public health with a strong environmental health component in their degree programs have found helpful is to achieve dual accreditation from both EHAC and CEPH. Dual accreditation ensures that students receive an education that covers the broader social and policy aspects of public health, as well as the foundational scientific and risk related management aspects necessary to address EH issues.

EHAC Council Member CAPT (Ret.) Don Williams, has referred to EH practitioners as the "Special Forces" of environmental health, reflecting the importance of skilled, knowledgeable risk assessors to the protection of human health. EHAC remains steadfast in its support of a STEM based professional EH curriculum that results in this caliber of graduate. EHAC curriculum criteria provide for the rigorous, science based, hands-on EH training that enables graduates to critically assess and creatively address national and global issues of environmental health, from coronavirus to climate change.

Warm Regards,



Source:

¹Gerding, J.A., Landeen, E., Kelly, K.R., Whitehead, S., Dyjack, D.T., Sarisky, J., & Bryan, B.W. (2019), Uncovering environmental health: An initial assessment of the profession's health department workforce and practice. *Journal of Environmental Health*, 81(10), 24–33. Retrieved from <https://www.neha.org/node/60738>.

²Gerding, et al., supra.

³Gerding, et al., supra. Table image reproduced with permission from the National Environmental Health Association.

⁴Gerding, et al., supra, 30.

⁵Gerding, et al., supra, 27.

**2020 EHAC Annual Meeting
(July 11-12, 2020) and
The National Environmental Health Association
Annual Education Conference
(NEHA AEC) - July 13-16, 2020**

EHAC's 2020 Annual Meeting of the Council will take place on July 11 and 12, just prior to the start of the [2020 NEHA AEC](#) being held in the Sheraton Times Square in New York City, July 13-16. Council members, reaccrediting Program Directors and those interested in attending the Council meeting are encouraged to make their travel arrangements early. Click [here](#) for a link to reservations at the [Sheraton New York Times Square](#), where the meetings will be conducted.

EHAC's Annual Meeting will focus on the accreditation review of the Environmental Health Degree Programs at:

- California State University - Northridge (Undergraduate and Graduate),
 - East Central University in Oklahoma (Undergraduate),
 - Missouri Southern State University (Undergraduate),
 - Old Dominion University, Virginia (Undergraduate), and
 - West Chester University, Pennsylvania (Undergraduate).
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Council Members will also review revisions to EHAC's Graduate Guidelines for Accreditation and updates to Undergraduate Requirements for Accreditation.

Student Focus at the 2020 NEHA AEC!

EHAC is excited to be working closely with NEHA organizers and others to enhance the student related experience at the NEHA AEC. For many students, attending the AEC is their first opportunity to meet and interact with EH professionals outside their educational setting. This can be overwhelming and intimidating for students - especially for those presenting their research, perhaps for the first time, in a professional setting.



NEHA is expanding its efforts to attract and to encourage student attendance of the AEC by instituting the following:

- **Student Mentorship Program** - student attendees can be assigned a professional EH mentor to assist with orienting students to the conference, providing guidance on how to gain the most benefit from the conference as well as a networking opportunity for student introduction to the EH community.
- **Student Networking Reception** - Monday July 13 prior to Grand Opening Ceremonies.
- **Student Lounge** - where students can network with their peers and professionals and participate in student oriented programs and... relax!
- **Enhanced Student Poster Session** - student posters will be displayed throughout the entire NEHA conference this year! This provides students with much more exposure and many more opportunities to interact with conference attendees.
- **Student Focused Session Tracks** within the Workforce and Training Section of the conference.
- **NEHA T-shirts for Students!** - all students will receive a free NEHA t-shirt and t-shirts will also be for sale with proceeds going to support student oriented programming at NEHA.

As the sole professional organization for the Environmental Health profession, NEHA plays a significant role in EH career exploration and development for students, young and veteran EH professionals. The earlier individuals can become involved in NEHA, the more they can benefit from related opportunities, as well as begin to give back to the EH community.

SEHA!

Student Environmental Health Association



AEHAP, EHAC's sister organization, has recently created the [Student Environmental Health Association \(SEHA\)](#). SEHA will launch in Spring 2020 and will serve as the national platform to bring Environmental Health student organizations of EHAC accredited schools together 1) to connect persons knowledgeable in and zealous toward Environmental Health and thus to create an organization which will promote the advancement of the science and practice of EH and 2) to bring together members of the faculty and student body on a basis of mutual interest, understanding, and helpfulness.

SEHA Chapters will be sponsored by their local NEHA affiliate in order to create an immediate networking connection between students and NEHA mentors. AEHAP's leadership is excited to bring this opportunity to students in EHAC accredited programs that are members of AEHAP.

Stay tuned for more information!!

Scholarship and Internship Opportunities

1. The AEHAP Student Research Competition (SRC) Scholarship application period to attend and present at the 2020 NEHA AEC in New York, NY is currently open - with a



deadline of February of 28, 2020.

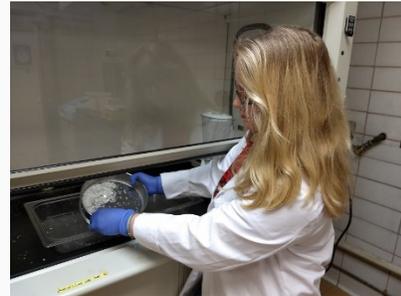
The SRC provides a \$1,000 award and up to \$1,000 in registration and travel related expenses to successful Undergraduate and Graduate students who attend EHAC accredited programs. ***The SRC scholarship is a significant opportunity for students to interact with EH practitioners and academics, their peers and to gain valuable experience presenting their research at a professional conference.*** Past SRC winners, like the 2019 SRC scholars pictured right, describe their experiences at the AEC as invaluable and some students have even left the AEC with a job in hand upon their graduation. The AEC is a fabulous place for students to learn and gain inspiration for a career in Environmental Health. Please apply at this [link](https://www.aehap.org/aehap-src-scholarship-and-nsf-internships.html) - <https://www.aehap.org/aehap-src-scholarship-and-nsf-internships.html>.

2. The [NEHA/AAS Scholarships](https://www.neha.org/professional-development/students/nehaaas-scholarship/scholarship-information) - application deadline - March 15, 2020 (DEADLINE EXTENDED). NEHA and the American Academy of Sanitarians (AAS) are offering TWO \$2500 scholarships for Undergraduates and ONE \$2,500 scholarship for Graduate students. Undergraduate and Graduate students who are enrolled in an accredited college or university, with a dedicated and recognized curriculum in EH sciences, are eligible to apply. The undergraduate scholarship is to be used toward the tuition and fees associated with the junior or senior year of college. The graduate scholarship is to be used toward tuition and fees associated with graduate studies. **The purpose of the scholarship program is to encourage early commitment by students to pursue a career in EH. Apply at this [link](https://www.neha.org/professional-development/students/nehaaas-scholarship/scholarship-information) - <https://www.neha.org/professional-development/students/nehaaas-scholarship/scholarship-information>.**

EHAC Accredited Degree Programs: Student and Alumni News

East Tennessee State University (Undergraduate BSEH Degree Program)

Ms. Avery Vestal (right) is a senior at East Tennessee State University. As an undergraduate, Ms. Vestal is studying Environmental Health and is the recipient of the Honors in Discipline scholarship to cover her out-of-state tuition. During her collegiate career, Ms. Vestal has graciously accepted the M.T. Morgan Scholarship and the Pruett Public Health Scholarship from the Department of Environmental Health and College of Public Health. Ms. Vestal is the current residing East Tennessee State University Student Environmental Health Association President. Over the summer of 2019, she completed an internship with Johnson City Water Division working as a hydrogen sulfide intern. Ms. Vestal tracked and collected samples of both dissolved and ambient samples of hydrogen sulfide to reduce erosion in the region's pipelines. For the summer of 2020, Ms. Vestal has accepted an AmeriCorps position in Rockford, Illinois. Ms. Vestal's membership includes Environmental Natural Resources Management for Severson Dells. Putting her academics first, Ms. Vestal is in the process of completing her undergraduate honors thesis. With an interest in water quality and toxicology, she is studying the effects of microplastic leachate on the reproduction of *Ceriodaphnia dubia*. Ms. Vestal's future goals are to further her education in graduate school for the fall 2021 semester.



Montana State University (Undergraduate MBEH Degree Program)

Mounsey and Reed, Environmental Health majors from Montana State University Bozeman, headed for graduate school at University of Washington.

As an undergraduate, Anna Mounsey was the Teaching Assistant for a project with the Gallatin Local Water Quality District (GLWQD) researching wastewater contamination of Bozeman's urban creeks. She co-presented this research at the GLWQD Board meeting and again at the Montana Environmental Health Association (MEHA) Conference. After graduation, she worked as a commercial fisherwoman in Alaska, then as a biologist for a NOAA summer survey in the Arctic Ocean. Aboard the R/V Ocean Starr, she sampled water to be analyzed for phytoplankton associated with harmful algal blooms. Anna has been accepted into the University of Washington's Environmental Health Master's program, funded by a graduate fellowship. She will be working with Dr. Tania Busch Isaksen (EHAC General Chair) to study wildfire smoke exposure of agricultural workers in Washington's Methow and Okanogan Valleys. Anna comments, "I am so grateful for my time with MSU's environmental health program and am excited to see what the future holds!"



Anna onboard the R/V Ocean Starr,
photo by Brendan Smith.



Anna and McKay, 5th & 7th from left,
conducting fieldwork on Bozeman Creek

McKay Reed will be graduating in environmental health from MSU in May, and will be going on to do a Master's degree in Occupational Health with the University of Washington's School of Public Health. As a sophomore, he interned with MSU's Mass Spectrometry Facility, analyzing well water samples from the Crow Reservation for organic contaminants, and reported back on his results both in the Crow community and at an MSU Research Celebration. His junior year, he joined Anna Mounsey in researching wastewater contamination of Bozeman's urban streams, and co-presented the results to the GLWQD Board and at the MEHA conference. The following summer, he talked our local Health Department into creating a paid internship for him, and spent that time gaining hands on experience in their Environmental Health Department. As a senior, he reached out to his connections in the Crow community, and developed and contributed educational materials on septic systems and groundwater for Crow 5th graders in the Guardians of the Living Waters program. McKay is currently taking advanced coursework in statistics and GIS, and is particularly interested in a career in risk assessment.

Submitted by Mari Eggers, Environmental Health Program Associate Director, Research Assistant Professor, MSU Bozeman

University of Georgia, Athens (Undergraduate BSEH Degree Program)

Randall Manning Scholarship: Randall Manning was a longtime supporter of the UGA BSEH Program and hosted hundreds of interns during his tenure at the Georgia EPD. This award is in his

honor and recognizes outstanding student performance in an internship. This year's awardee is Christen Holbrook (pictured on left with Dr. Anne Marie Zimeri). She is from Rome, Georgia, and secured an internship in the UGA Ecology Department. She worked on a research project aimed to better understand the evolutionary trends, selective forces, and ecological dynamics of metal hyper-accumulation. Her work furthered advanced the field of phytoremediation technology, which is the use of plants to remediate environmental contamination. In addition, her research project, which used sunflowers as a model system, can be used in the identification of other hyper-accumulating plant species. She plans to enter the workforce in the field of environmental health, then ultimately pursue a Master's degree in Public Health to further her career.



University of Georgia, Athens (Undergraduate BSEH Degree Program)

Alumni Update

Spencer Cooper is a BS graduate from UGA's Environmental Health Science Degree Program. He is pursuing a career in EH and gave the Department this recent update:



Spencer conducting environmental and safety training during the Navajo Nation Professional Development Week, training over 800+ staff (2018)

With your BSEH degree from the University of Georgia, what became your scientific specialty? How does that relate to your present career?

My primary project for the last 10 years has been supporting multi-media environmental compliance assessments for the Bureau of Indian Affairs. Multi-media means that we look at everything from air/asbestos/water/waste/tanks/sustainability – and UGA's multi-disciplinary curriculum helped prepare me for the job. With my job, I support conducting the assessments, IT/data collection and analysis/building EHS compliance tools and apps, and developing an environmental compliance training suite.

What particular EHS classes were the most memorable, or helped the most with finding your career?

I have two! Pratt Cassidy led our Global Engagement Learning Community – the Learning Community allowed me to find students with similar interests my freshman year – and I had the privilege of traveling to Tunisia, Ghana (twice) and Thailand with Pratt. The second is Dr. James Porter – So grateful to have known him and taken his class. His class presented sustainability and climate change from a scientific perspective – and inspired me to continue my education in sustainability (received my Masters in sustainability from Virginia Tech).

Did you have any extracurricular or other activities with the EHS Department at UGA that left a lasting impression? What about research in the field?

I was accepted and participated in the UGA Washington Semester Program (WSP) my senior year – Don DeMaria (WSP), Dr. Zimeri and Dr. Black supported me in this – and helped setup an internship with the Department of the Interior’s (DOI) Office of Environmental Policy and Compliance (OEPC). That internship led to my first job – and I’ve been supporting the DOI for the past 10 years, now with my own company.

Have you had any interesting unique opportunities in your current career? Any opportunities or otherwise interesting circumstances?

My primary project (for the past 10 years) has been supporting the Bureau of Indian Affairs. It has been an incredible opportunity and pleasure working with the Bureau – and has given me an opportunity to see some unique places and work with some amazing people. With several of our stakeholders having English as a secondary language, we’ve recently focused a lot on readability – and ensuring we give our audience the opportunity to understand the trainings and support we provide. This project has given me the opportunity to support ~120 schools and ~80 facilities – and keep them in compliance.

Western Carolina University (Undergraduate BSEH Degree Program) **Alumni Update**

Cierra Elledge (B.S. Environmental Health) was named the “Environmental Health Specialist Rookie of the Year” by the North Carolina Public Health Association in September 2019. This award was given in recognition of Cierra’s outstanding efforts and work completed as a new Environmental Health Specialist. Cierra graduated with her degree in Environmental Health in May 2018 and is a Registered Environmental Health Specialist with the Wilkes County Health Department in North Carolina.

protection and lodging sanitation. The Program is honored and excited to have Sara and Geraldine as part of its team!
