

ESGP NEWS

ENVIRONMENTAL SCIENCE GRADUATE PROGRAM OKLAHOMA STATE UNIVERSITY

Connect with ESGP

117 Life Science East
Oklahoma State University
Stillwater, OK 74078
Phone: 405-744-9229
Email: esgp@okstate.edu



Dr. Scott Stoodley, ESGP Director



We had our fair share of snow days this spring!



More morel mushrooms (Photo Credit: Scott Stoodley)

Message from the Director

Namaste from a wild and windy Life Science East! This last month has been filled with high winds and I think most of us are ready for a break from it. Thankfully, we have received precipitation recently and the Morel mushrooms are starting to pop!

This semester we are starting another new project with the City of Stillwater. This project will entail long-term monitoring of our drinking water quality. Ryan, Preston, and Yaema will be sampling water quality throughout the city and mapping the data in a GIS environment. This will be overlaid with the water infrastructure to determine if there are any correlations between aging infrastructure and degraded water quality.

We are also starting a new project in conjunction with the Oklahoma Water Resources Board. Kelly will be monitoring 5 reservoirs throughout Oklahoma with multispectral imagery to provide early detection of harmful algal blooms (HABs). This will trigger a response team to go out and collect in-situ water quality data in order to better understand the conditions under which toxicity is associated with a HAB event.

Kaitlyn Joy will be conducting the first HAWQs modeling assessment of the Pond Creek Watershed. She will be trying to determine why certain waterbodies within the watershed were delisted and then relisted on the 303(d) Report of Impaired Waterbodies.

We are very excited to announce our first grant from the Kirkpatrick Foundation. A very big thank you to Louisa McCune for making this happen! These funds will be used to help build a new rotary copter drone outfitted with a Micasense RedEdge multispectral sensor to assist us in all of our remote sensing work throughout the state of Oklahoma! We will be using this drone over the summer to monitor the spatial extent of the aquatic invasive species known as Yellow floating heart on Lake Carl Blackwell.

It looks to be an exciting and busy summer ahead! If you are coming to Stillwater, stop on by. We'll leave the lights on for you.
Cheers, Scott

OSU-TULSA

**Professional Science Master's
in Environmental Management**

Director's Message

The Oklahoma State Regents have approved Oklahoma State University's request to offer the Graduate Certificate in Environmental Science with Regulatory Certifications via traditional and electronic delivery.

This is another "1st" for OSU-Tulsa ESGP!

In addition, only OSU-Tulsa offers the PSM-MS degree in Environmental Science. The Professional Science Master's Degree Program differs from other ESGP degrees by providing students a springboard to industry-specific job opportunities.

When completed, you will have the following degree and certifications:

- **Master of Science (MS) in Environmental Science from Oklahoma State University**
- **Professional Science Master's accreditation (PSM)**

In addition, if you complete the following courses, you will receive the following Federal certificates:

ENVR 5583: Safety Aspects for Environmental Managers

- OSHA 30-Hour General Industry course as per 29 CFR 1910

ENVR 5573: Applied Standards for Environmental Managers

- Department of Transportation (DOT) training requirements as per 49 CFR, Part 172, Subpart H, and
- EPA RCRA's Hazardous Waste training requirements as 40 CFR 262.34(a) & 265.16

ENVR 5593: OSHA 40 HR HAZWOPER

- OSHA's 40-hour HAZWOPER requirements as per 29 CFR 1910.120

OSU-Tulsa is the only university in the State of Oklahoma which offers all of the above listed courses for graduate credit!

In addition, OSU-Tulsa coursework includes Clean Air Act, Clean Water Act, Sustainability, ISO 14001, GIS Applications, Hydrogeology, Bioremediation, Site Investigation, Site Assessment & Remediation, Environmental Chemistry, etc.

*If you plan on working in industry, consulting or with any regulatory agency (such as USEPA, ODEQ, Tribal Nations, etc.), **this is your program!***



Dr. Ken Ede, PSM Director



OSU-TULSA

Courses offered

SUMMER 2022

ENVR 5200 CRN 43755

Wilderness and the American Mind

- Full Day Sessions-Buffalo River (July 21-24)
- Zoom Sessions (July 5/7/12/14/19/21) 5:00-8:00PM

ENVR 5593 CRN 43823

Hazardous Waste Operations and Emergency Response: HAZWOPER

- May 23-27
- 40-Hour Training

ENVR 5613 CRN 43827

Introduction to Environmental Toxicology & Industrial Hygiene

- Wednesdays 4:30-7:10 PM
- Choose either traditional or remote learning

ENVR 5733 CRN 43796

Environmental Site Assessment

- Mondays and Tuesdays 5:30-8:10 PM

ENVR 5823 CRN 43826

Watershed Management

- Thursdays 4:30-7:10 PM
- Choose either traditional or remote learning

ADMISSIONS

Welcome!

NEW ADMITS FOR 2022

We welcome these students who were admitted to ESGP degree programs in spring, summer, and fall 2022:

- Yaema Fornah, MS
- Golnaz Sajadi, PhD
- Nathaniel Bolujoko, PhD
- Jack Edwards, MS
- Sonika Poudel, MS
- Alexa Clark, PSM
- Elizabeth Davis, PSM
- Matthew Koerner, PSM
- Damian Habib, PSM
- Jeffrey Everett, GCRT
- Michael Zormelo, PSM

CURRENT STUDENT RESEARCH

Jim Pendred, PhD



Photo Credit: Jim Pendred

Jim Pendred is a doctoral student in the Environmental Science Graduate Program. He is advised by Dr. Nicole Colston, who is a research faculty member in Natural Resource Ecology & Management (NREM) and also in the Oklahoma Water Resources Center. Jim is working on his proposal which involves investigating plastic pollution through citizen science as part of watershed management. Jim hopes to partner with a local high school in Stillwater to engage with science teachers and students in a watershed report card program. The program will

guide students towards evaluating their schoolyard as an area embedded in a local watershed and how it contributes to the health of a creek. Several biotic and abiotic factors will be evaluated, which will facilitate the implementation of a low-tech and low-budget extraction and identification of microplastics. This, as part of citizen science, will help to instill environmental consciousness with the students and make them water stewards. Jim's goal is to become a limnologist and work for the National Park Service.



Photo Credit: OSU Tulsa

RECENT GRADS

Congratulations, Graduates!

SPRING 2022

Congratulations to our Spring 2022 graduates!

- Christopher Bolton, PSM
- Mike Karr, PSM
- Taylor Mills, PSM
- Tou Yang, PSM

Please refer to the schedule and links below for May commencement ceremony details

<https://registrar.okstate.edu/commencement/>

Friday, May 6

- 1:00 pm College of Veterinary Medicine (Gallagher-Iba Arena)
- 7:00 pm [Graduate College](#) (Gallagher-Iba Arena)

Monday, May 9

- 6:30 pm [OSU-Tulsa](#) (Union Multipurpose Activity Center)

Research Highlights

Read and watch about research that we have been involved with here:



STATE Magazine Spring 2022 Issue - OSU researchers develop innovative method to battle invasive aquatic plants

https://news.okstate.edu/magazines/state-magazine/articles/2022/spring/osu_researchers_develop_innovative_method_to_battle_invasive_aquatic_plants.html



STATE Magazine Spring 2022 Issue - OSU researchers tackling problem of harmful algae blooms

https://news.okstate.edu/magazines/state-magazine/articles/2022/spring/osu_researchers_tackling_problem_of_harmful_algae_blooms.html



Lake & Pond Heroes - Lake Carl Blackwell

<https://sepro.com/aquatics/lake-pond-heroes/lake-pond-heroes-lake-carl-blackwell>

ESGP STUDENT SPOTLIGHT



KAITLYN JOY

I studied Ecohydrological Engineering at University of Idaho and Environmental Science at Texas A&M University Corpus Christi. My research entails figuring out how and why the Pond Creek Watershed was delisted and then relisted for impaired waters by using the HAWQS modeling program. This will be the first project involving and using the HAWQS modeling program in the State of Oklahoma. Personally, I am a retired professional soccer player and I coach youth soccer.

Photo Credit: Kaitlyn Joy

YAEMA FORNAH

I have a Bachelor of Science in Forestry and a Master of Science in Forestry and Environmental Management and Quality Control from Njala University, in Sierra Leone. My research is field monitoring of salt ions and minerals in surface water, soil, and groundwater to calibrate, validate, and test the watershed scale model. My hobbies include traveling, adventures, music, and dancing.

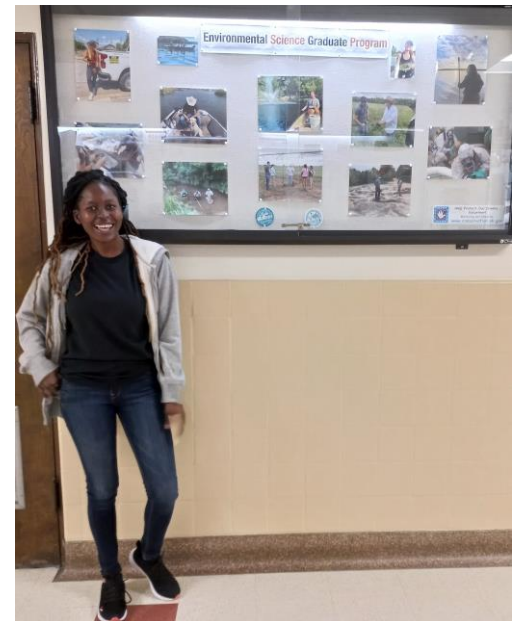


Photo Credit: Yaema Fornah



PRESTON JONES

I studied Environmental Conservation Biology at Rogers State University in Claremore, Oklahoma. I received my bachelor's degree in December 2020. My research is focusing on carbon sequestration and soil health rates between regenerative agricultural techniques including no-till drilling compared to traditional tilling on farms in central Oklahoma. I love spending time with my wife, Jayson and our two dogs, Odin and Skye. I love doing anything outdoors especially bow hunting, fishing, hiking, and camping. Someday I would love to have a job working with wildlife, so that future generations can enjoy nature the same way I've been able to.

Photo Credit: Preston Jones



EARTH DAY 2022

For the past 50 years, Earth Day has been celebrated by billions of people around the globe, annually every **April 22**, to join together in promoting awareness for the health of our environment.

SHARE YOUR ALUMNUS NEWS WITH US AND WE WILL ADD IT TO OUR NEXT NEWSLETTER. SUBMIT YOUR ITEM TO ESGP@OKSTATE.EDU

