

ESGP NEWS

ENVIRONMENTAL SCIENCE GRADUATE PROGRAM OKLAHOMA STATE UNIVERSITY

Connect with ESGP

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Water Quality Monitoring Theta Pond (Photo Credit: Kelly Hendrix)



Dr. Scott Stoodley, ESGP Director

Message from the Director

Greetings from the home of the 2021 Bedlam Champions! This year we welcome several new graduate students including Kelly Hendrix, Kaitlyn Joy, Preston Jones, Jimi Underwood, Steve Magnum, and Rance Kingfisher.

Preston will be studying the delta in carbon sequestration due to implementation of soil health/regenerative agriculture best management practices. His studies will be conducted in concert with a much larger project funded through the Oklahoma Conservation Commission. Jimi will be working with ODOT to convert travel right of ways into pollinator corridors. Kelly will be working with the Oklahoma Water Resources Board in utilizing satellite imagery to map the spatial distribution of Harmful Algal Blooms in 5 reservoirs throughout Oklahoma. Kaitlyn will be conducting a watershed modeling project on the Pond Creek Watershed to assess the efficacy of implementing agricultural best management practices on stream water quality.

This summer we continued our work on eradication of Yellow floating heart on Lake Carl Blackwell. This is a highly invasive ornamental from southeast Asia that had taken over 55 acres of the reservoir. This summer we worked in conjunction with the OSU Mechanical & Aerospace Engineering Department to design a drone capable of deploying product from above the surface of the water at locations that are not accessible by boat. Early this Fall 2021, we successfully conducted our first aerial application. It may be the first drone application of an aquatic herbicide in the history of the state of Oklahoma!

We would like to congratulate Hailey Seago and Molly Turner for graduating with their Master of Science in Environmental Science this semester! They will go on to accomplish great things in life. In addition, we would like you to help us welcome Yaema Fornah to our program who will start in the Spring of 2022. Yaema represents the 5th student that we have hosted in recent years from Sierra Leone.

I would like to personally thank Usha Turner and the kind folks over at Oklahoma Gas & Electric for their very generous donation of a new (to us) truck! This truck will be used by our field crews to conduct various types of sampling and to trailer our boats!
Happy Holidays to you and yours! Cheers, Scott



Fall officially began on
September 22, 2021

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

SPRING 2022

ENVR 5033 CRN 27641

GIS Applications for Water Resources

- Thursdays
- 16:30-19:10 PM

ENVR 5123 CRN 22535

Environmental Problem Analysis

- Tuesdays
- 16:30-19:10 PM

ENVR 5403 CRN 25136

Water Resource Management, Law, and Policy

- Tuesdays
- 19:20-22:00 PM

ENVR 5573 CRN 24962

Applied Standards for Environmental Managers

- Wednesdays
- 16:30-19:10 PM

ENVR 5583 CRN 24968

Safety Aspects for Environmental Managers

- Mondays
- 16:30-19:10 PM

ENVR 5723 CRN 30086

Field Investigation for Environmental Managers

- Thursdays
- 16:30-19:10 PM

ADMISSIONS

Welcome!

NEW ADMITS FOR 2021

We welcome these students who were admitted to ESGP degree programs in summer and fall 2021:

Aaron Greenquist, PSM
 Aaron Ware, PSM
 Brianna Cox, PSM
 Emily Akin, PSM
 Guy McGuire, PSM
 Kaylin Rae Yockey, PSM
 Samuel Alvarado, PSM
 Jimi Underwood, PhD
 Kelly Hendrix, MS
 Kaitlyn Joy, MS
 Pavithra Selvakumar, PhD
 Preston Jones, MS
 Rance Kingfisher, PhD
 Steve Magnum, PhD
 Yaema Fornah, MS

CURRENT RESEARCH

Hailey Seago, MS



Photo Credit: Hailey Seago

Hailey Seago, is a Master’s student in the Environmental Science Graduate Program being advised by Dr. Scott Stoodley. The City of Stillwater stormwater manager, Zachary Henson, and Meshek and Associates from Tulsa, OK created a graduate research project with the Environmental Science Graduate Program at Oklahoma State University to conduct an entire assessment on the condition of stormwater sewer infrastructure and the characterization of the streams within city limits. Qualitative data of stormwater structures and stream channels in the field is collected using a GIS software on ArcMap Collector and an EOS Positioning Systems ARROW 100.

The assessment of the storm sewers and stream channels using GIS will help identify flood-prone areas and stormwater infrastructure failures. Identifying these areas allows for prioritizing where Sustainable Drainage Systems (SusDS) can be implemented. Simulations using PCSWMM will be conducted to display the environmental effects and benefits of SusDS implementation. Results will include locating current stormwater infrastructure problem areas, identifying suitable areas for SusDS, and creating flood relief to the floodplains and stream channels in Stillwater, Oklahoma.



Photo Credit: Priya Kayastha

RECENT GRADS

Congratulations, Graduates!

SUMMER 2021 - FALL 2021

Join us in congratulating these students for completing their degrees:

Summer 2021
 Priya Kayastha, MS
 Aniko Konya, PhD

Fall 2021
 Fred Baker, PSM
 Gianna Barolin, PSM
 Courtney Knudson, PSM
 Lauren Meyer, PSM
 Kim Nguyen, PSM
 Hailey Seago, MS
 Becca Stokes, PSM
 Molly Turner, MS

Oklahoma State University is proud to invite all degree candidates to the Fall 2021 Commencement Ceremonies this December 10 and 11 at Gallagher-Iba Arena. Please visit commencement.okstate.edu and OSU-Tulsa Commencement for more information.

PARTNERSHIP HIGHLIGHT

OG&E Partnership

We would like to highlight our continued partnership with Oklahoma Gas & Electric (OG&E). ESGP Alumni, Caleb Biles was previously funded by OG&E to study zebra mussel population dynamics at Sooner Lake, Oklahoma. Current ESGP students, Kelly Hendrix and Ryan Kroeger (inset) are delighted to have access to this new addition for field work.



Photo Credit: Dr Scott Stoodley

UPCOMING

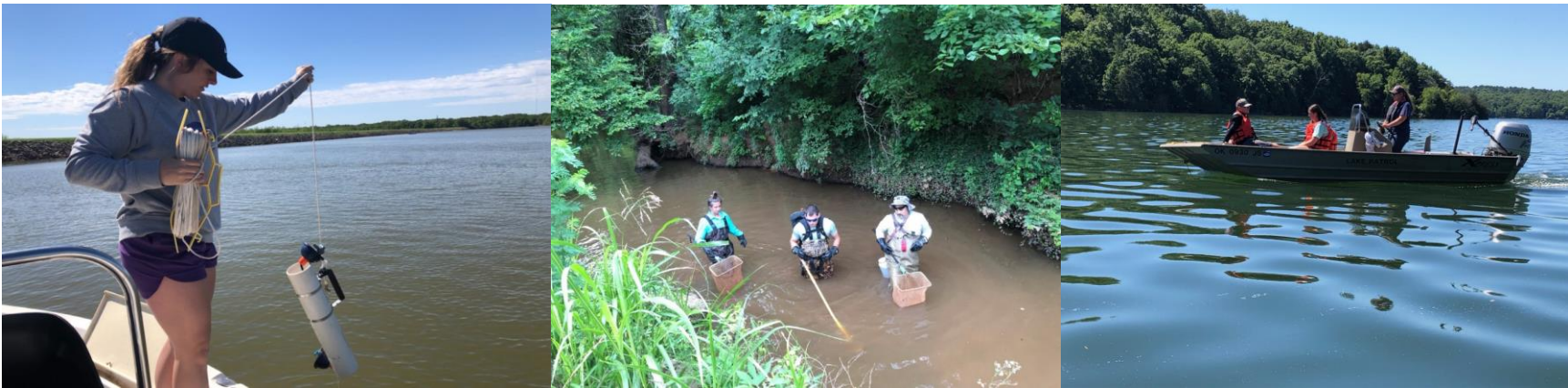
Summer Application

Apply online at <https://grad.okstate.edu/apply/>.

Application deadline: Summer – January 30th



FUN IN THE SUN LAST SUMMER!



LIGHTS ON THE LAKE AT LAKE MCMURTRY

Bring the family for an exciting night of fun at Lights on the Lake at Lake McMurtry! This drive-thru attraction sparkles with bright displays of Christmas magic.

- 📍: Lake McMurtry
- 📅: December 3-19, Friday-Sunday
- 🌐: <https://www.lakemcmurtry.org/lights-on-the-lake.html>



Share your alumnus news with us and we will add it to our next newsletter. Submit your item to esgp@okstate.edu