

ESGP NEWS

ENVIRONMENTAL SCIENCE GRADUATE PROGRAM OKLAHOMA STATE UNIVERSITY

Connect with ESGP

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Cold Beginnings: Theta Pond Frozen



Dr. Scott Stoodley, ESGP Director

Message from the Director

Greetings from Stillwater! It has been a long, strange trip since our last newsletter. Campus is slowly returning to some sense of normalcy as vaccinations ramp up throughout campus and the state of Oklahoma. Our offices are fully vaccinated and we are greatly appreciative of the OSU initiatives to vaccinate our community. Thank you President Hargis for your leadership sir!

Our research continues on the Saline Creek Stream Restoration Project with the Cherokee Nation. We continue to monitor water quality, fish populations, macroinvertebrates, and riparian area health. Thank you Meghan Martin for all of your hard work on that project. Molly Turner and Hailey Seago continue their efforts working with the City of Stillwater on designing and implementing a city-wide water quality monitoring program, stream channel characterization, and storm sewer assessments. We are happy to announce that Ryan Kroeger has joined the program and he will be working on our Yellow floating project on Lake Carl Blackwell. He will also be taking over monitoring water quality at Lake McMurtry.

This summer we will be starting a couple of new projects. The first will entail working with the Oklahoma Water Resources Board to monitor harmful algal blooms (HABs) detected by multispectral satellite imagery. Our rapid response team will be traveling the state of Oklahoma as needed in order to help our state better understand HABs and the toxicity associated with varying outbreaks. Additionally, we will be starting a new project with the Oklahoma Conservation Commission this summer. We will be analyzing the impact that agricultural best management practices have on carbon sequestration. This research is being privately funded by a gracious donation from Dr. Terry Hall of Oklahoma City. Thank you Terry!

Before I forget, we are so happy to announce that we have a new ESGP Program Coordinator: Kavina Eksteen, M.S. Environmental Science Graduate Program, Class of 2020! We are blessed to have such a wonderful graduate of our program taking over in this roll. She has hit the ground running and is also teaching Environmental Sampling & Analysis in the Environmental Science Undergraduate Program. Kavina completed the Lake Hudson Watershed-based Plan for the Grand River Dam Authority.

Happy Spring to All!

Regards,

Scott



Spring has Sprung: Oak Tree LSE

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 2021

**ENVR 5200 CRN 41835 & 43587
Wilderness and the American Mind**

- Full Day Sessions-Buffalo River (July 24-27)
- Synchronous Zoom Sessions (July 6/13/20/23) 7:20-10:00PM

**ENVR 5593 CRN 43465
Hazardous Waste Operations and Emergency Response: HAZWOPER**

- May 17-21
- 40-Hour Training

**ENVR 5613 CRN 43614
Introduction to Environmental Toxicology & Industrial Hygiene**

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

**ENVR 5753 CRN 43637
Environmental Site Remediation**

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

**ENVR 5823 CRN 43257
Watershed Management**

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

ADMISSIONS

Welcome!

NEW ADMITS FOR 2021

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

- Daniel Al-Khoury, PSM
- Piotr Baidas, PSM
- Frederick Baker, PSM
- Christopher Bolton, PSM
- Brianna Cox, PSM
- Isaac Elliott, PSM
- Yaema Fornah, MS
- Torsha Goswami, PhD
- Kelly Hendrix, MS
- Kaitlyn Joy, MS
- Ryan Kroeger, MS
- Sheldon Mack, PSM
- Steve Magnum, PhD
- Lauren Meyer, PSM
- Anjuli Mulmi, MS
- Shannon Wilson, PSM

CURRENT RESEARCH

Meghan Martin, PhD



Photo Credit: Meghan Martin

Meghan’s research is in Mayes County, Northeastern Oklahoma, looks at the most detrimental form of sand and gravel mining, referred to as riverine mining. Her study implements three realms of the Environmental Sciences to determine the change riverine mining has on a small stream reach, known as Saline Creek. Her research first investigates how the mine has impacted the stream’s health, combining water quality analysis with biological collections (fish and macroinvertebrate).

Second, she is trying to detect any change in the fluvial-geomorphological profile of the stream through time (two to three decades) by observing aerial and satellite imagery. Finally, she hopes to determine if a ban, restriction, or recycling of other aggregates would be feasible. To do this, she hopes to analyze the economic impact of sand and gravel mining directly while incorporating negative externalities to provide the true price of mining.



Photo Credit: Kavina Eksteen

RECENT GRADS

Congratulations, Graduates!

SPRING 2020 - SPRING 2021

Join us in congratulating these students for completing their degrees:

Spring & Summer 2020

- Caleb Biles, MS
- Stephen Cochran, PSM
- Kavina Eksteen, MS
- Jacob Mahmood, PSM
- Abigail McCrea, MS
- Benjamin Lamb, MS
- Martin Wind, PSM

Spring 2021

- Hayley Cooney, PSM
- Daryl Hatch, PSM
- Scott Petty, PSM
- Charles Nadal, PSM
- Samantha Rosado, PSM
- Erin Tubolino, PSM

All OSU class of 2020 graduates are invited to participate in spring commencement ceremonies in Boone Pickens Stadium May 7-8 as capacity allows. Please visit commencement.okstate.edu and OSU-Tulsa Commencement for more information.

CONGRATULATIONS!



Benjamin Lamb (left) has been appointed as a GIS Technician at Black Hills Energy in Fayetteville, Arkansas in December 2020. **Abby McCrea** (right) is an Environmental Technician at JHA Companies in Montrose, Pennsylvania. In August, she will assume the role of Sewage Enforcement Officer. Photo Credits: Abby McCrea



ALUMNUS SPOTLIGHT

Natarianto Indrawan, PhD

Natarianto Indrawan completed his PhD degree in Environmental Science at Oklahoma State University in December, 2018. His thesis focused on Advanced Biopower Generation via Gasification of Biomass and Municipal Solid Waste. During his PhD, he published more than six original research papers as the first author. He also published a book chapter. Currently, more than 11 publications of his scholar record reference his PhD thesis. Prior to his graduation, Dr. Indrawan had been involved in conducting research in the U.S. Department of Energy (DoE), the Office of Fossil Fuel, National Energy Technology Laboratory (NETL).

The Oak Ridge Institute for Science and Education (ORISE) supported his post-doctoral research from March to July 2019. In August 2019, he was recruited as Leidos Research Support Team (LRST) to support research within the DoE, the National Energy Technology Laboratory (NETL), hybrid power system, gasification, and hydrogen production. In the summer, Dr. Indrawan is one of the mentors for The Mickey Leland Energy Fellowship (MLEF) program. This program is sponsored by the U.S. DoE, Office of Fossil Energy. The main focus is to assist undergraduate, graduate students, and faculty members, who conduct summer internships at NETL.



Natarianto Indrawan, PhD

ALUMNUS SPOTLIGHT

Lexi Freeman, MS

Lexi Freeman graduated from the Environmental Science Graduate Program nearly 3 years ago, in 2018 with her Master’s Degree. Her goal “to return to tribal nations and help with the implementation and regulation of environmentally friendly practices”, has been realized. She is now the Environmental Coordinator for the Citizen Potawatomi Nation. Lexi is really enjoying the work, and is responsible for NEPA reviews, environmental regulations/compliance, and water monitoring. She also manages the EPA grants (CWA 106, CWA 319, and GAP). Lexi is the Secretary of the Tribe’s AISES chapter and she is having fun teaching Native students (virtually) about entomology and the environment.

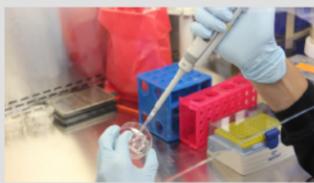


Photo Credit: potawatomi.org

UPCOMING EVENTS

**OCLWA VIRTUAL POSTER CONTEST!
MAY 19—21, 2021**

Join students from Oklahoma colleges and universities as they share their research through the OCLWA Virtual Poster Contest.



The contest will be conducted via Teams with posters available for viewing on May 19 and 20. Friday, May 21 each student will give a live 5-minute flash talk from 12 —1:30 then will answer questions on their poster’s Team channel from 1:30 — 4 pm.

Awards will be presented that evening at 6 pm during a virtual happy hour. We will be sending out water-themed cocktail recipes for you to enjoy safely, at home during the happy hour.

Registration is free. To register visit—<https://www.eventbrite.com/e/150078074561>



IMPORTANT DATES

May 14, 2021
Abstract submission deadline

September 3, 2021
Presenter registration deadline

September 24, 2021
Early bird registration deadline

October 22, 2021
Hotel room block closes

November 5, 2021
Regular registration deadline

NALMS 41st International Symposium
Valuing Water: Economics, Ecology & Culture
November 15-18, 2021 • Oklahoma City, OK

The Oklahoma Clean Lakes and Watersheds Association welcomes you back to Oklahoma City for the NALMS 41st International Symposium. Downtown Oklahoma City is a beautiful place to be in the fall with amazing weather! Explore The Modern Frontier! From our parks, museums, and entertainment districts as well as a fantastic selection of restaurants, there’s something for everyone to enjoy during your stay in OKC.

Don’t miss this opportunity to network with some of the most knowledgeable leaders in lake and watershed information and technology. The conference will consist of multiple panels and discussions focused on the value of water for economics, ecology, and culture.



- Topics will include the following:
- Harmful Algal Blooms
 - Invasive Species
 - Nutrients & Internal Loading Dynamics
 - Bioindicators in Reservoirs
 - Water Quality Standards
 - Wetlands
 - Climate Change Impacts
 - Western State Water Issues
 - Watershed Planning
 - Lake Management & Restoration
 - Water Planning
 - Drinking Water
 - Water Reuse
 - Measuring the Value of Water
 - Drilling Impacts to Water Quality

For general conference information, contact Julie Chambers, Conference Chair, at julie.chambers@owrb.ok.gov or 405-530-8932. For sponsorship information, contact Lance Phillips at Lance-phillips@owrb.ok.gov or 405-530-8953, or Scott Stoodley at Scott.Stoodley@okstate.edu or 405-744-3543.

www.oclwa.org
www.nalms.org

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