NATURAL RESOURCES AND ENVIRONMENTAL SCIENCE

NRES

Are you ready to make the earth a better place?

Our tag line captures the essence of the Natural Resources and Environmental Science Program.

This is the place for students who want to make a difference, and we are excited to provide you with the skills to do that! We do this with a flexible – but rigorous - plan of study that blends the chemical, biological, and physical knowledge of our Earth's system, with social science and policy, coupled with many opportunities for hands-on learning and service.

As the Director of the NRES program, I am so excited to welcome you to campus this fall! I am a Professor of Hydrology in the Department of Agronomy where I do research focused on how the water cycle responds to environmental changes, and I teach classes in hydrology, environmental science, field skills, as well as water and food security.

This information packet gives you a brief introduction to your major and environmentally-related clubs and programs on campus. Getting involved is a great way to meet people with the same interests as you, develop life-long friendships, and start building your resume.

We are glad you chose Purdue University and NRES! If you have any questions, please feel free to contact our NRES Academic Advisor, Mandy Chalk Marquardt, or myself. We look forward to meeting you and helping you learn about the great opportunities in NRES and at Purdue.

Choosing a college and major is often a challenge, but we are glad that your college search has led you to us. We are here to support you as you make this transition away from home.

Enjoy your summer!

Dr. Laura Bowling (bowling@purdue.edu)

The NRES Office

NRES Faculty and Staff are here to support you. Please do not hesitate to contact us. By email, phone, or drop by the office located in the Forest Products Building (FPRD Room 101)

Dr. Keith Cherkauer,
NRES Interim Director
cherkaue@purdue.edu

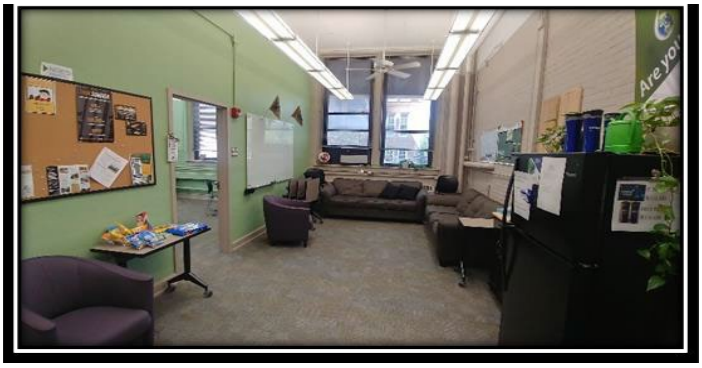
Dr. Christie Shee,
NRES Clinical Assistant Professor
cshee@purdue.edu

Dr. Bijoychandra S. Takhellambam,
NRES Post-Doctoral Research Assistant
tbijoych@purdue.edu

Mandy Chalk Marquardt,
Academic Advisor
chalkm@purdue.edu

Cora Chavez,
Administrative Assistant
chavez50@purdue.edu

NRES located in the Forest Products Building (FPRD)



NRES Student Space

Advising Office, Mandy Chalk Marquardt

NATURAL RESOURCES AND ENVIRONMENTAL SCIENCE

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Welcome!

I am delighted that you are joining the **Natural Resources & Environmental Science** major! I look forward to meeting you and discussing your fall classes during our advising appointment. The following information should be helpful for you as you plan and prepare for our advising appointment.

1. **I need to know about any college credits earned before your first semester at Purdue**. Think about AP courses, dual credit courses, or any other college courses you have taken. **If you have not had the credits sent to Purdue yet, please send them to admissions@purdue.edu as soon as possible.** Some of these courses may exempt you from needing to take a required course at Purdue. I cannot just go by your word; Purdue must have the official grade/transcript on record, and it takes a few weeks for them to be processed, so please send them as soon as possible. **You can find instructions on how to submit transcripts to Purdue here.**

2. In order to register for a **Math** course, you will need to either have a high enough SAT or ACT Math score for your required course (Applied Calculus 1: MA 16010) or you must complete the ALEKS test prior to your advising appointment so we can place you in the correct Math course. **Please see the following link with the guidelines and, if needed, take the ALEKS placement exam before your advising appointment**: http://www.math.purdue.edu/academic/undergrad/placement

3. You are currently enrolled in the **Natural Resources and Environmental Science major.** Please email me (chalkm@purdue.edu) NOW if this is incorrect.

4. Let me know during our meeting if you are in a **Learning Community, Honors Program, Dean's Scholars Program, Purdue Promise, 21st Century Scholar, Horizons, PMO (Purdue Musical Organization), Band, ROTC (Reserve Officers' Training Corps) and/or an Athletic Team (not intramural sports).**

5. Please let me know during our meeting if you have a disability and would like to meet with someone from the Disability Resource Center. (https://www.purdue.edu/drc/)

You will be receiving an email from me regarding scheduling your online advising appointment once your PUR 101 experience is complete. I encourage you to find a quiet and private space for our Zoom appointment. Advising appointments are intended to be between the student and advisor; parents/guardians/family members are welcome to join at the end of the appointment to ask questions.

Please feel free to contact me with any questions, and I would be happy to help. I look forward to seeing you soon!

Boiler Up!

Mandy Chalk Marquardt
NRES Senior Academic Advisor
Purdue University, College of Agriculture
chalkm@purdue.edu
https://ag.purdue.edu/department/nres/

NATURAL RESOURCES AND ENVIRONMENTAL SCIENCE

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Natural Resources and Environmental Science (NRES)

Purdue's Natural Resources and Environmental Science program is one of the oldest environmental science programs in the United States. This interdisciplinary program utilizes courses from across the University to construct a student's plan of study. NRES students choose from one of six concentration areas. These areas are: Climate and Energy Solutions, Environmental Quality and Restoration, Environmental Policy and Analysis, Sustainability Science, Watershed Management, and Emerging Environmental Challenges.

The NRES core draws courses from soil science, data science, environmental field skills, biology, chemistry, ecology, and environmental policy. Students regularly take courses in conservation, environmental engineering, and liberal arts to broaden their background. In addition to the university core requirements and the environmental science core courses, students select a concentration before the end of their sophomore year.

Students in the **Climate and Energy Solutions** Concentration choose 21 credit hours of course work to support the evaluation of climate impacts, adaptation and mitigation, and alternative energy solutions.

Students in the **Environmental Policy and Analysis** Concentration choose 21 credit hours of course work in policy, management, and economics in order to address environmental challenges.

Students in the **Environmental Quality and Restoration** Concentration choose 21 credit hours of course work in soil physics, plant biology, and hazardous waste handling to allow for evaluation, remediation, restoration, and preservation of air, water, and soil resources.

Students in the **Sustainability Science** Concentration choose 21 credit hours of course work in sustainability, economics, and life cycle analysis to minimize the depletion of natural resources in agriculture, industry, and other sectors in order to balance environmental, social, and economic considerations.

Students in the **Watershed Management** Concentration choose 21 credit hours of coursework in community involvement, hydrology, and soil conservation in order to engage and educate stakeholders to implement land use and water management practices to protect and improve water quality and natural resources.

Students selecting the **Emerging Environmental Challenges** Concentration work with the advisor and director to build a meaningful plan of study in an environmental focus area of their choosing.

PURDUE UNIVERSITY | College of Agriculture

Forest Products Building FPRD 101
175 Marsteller St.
West Lafayette, IN 47907

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Employment Opportunities

As concern for the environment grows, opportunities for NRES graduates increase in state and federal agencies and other firms involved in control technology, environmental compliance, waste minimization, environmental health and safety, remediation of contaminated sites, environmental law, and reclamation and remediation of disturbed lands.

NRES graduates work for business and industry, non-profits, and governmental agencies. Some of these jobs are Environmental Consultant, Wetland Scientist, Field Chemist, Hydrologist, Surveyor, Ecological Risk Assessor, Industrial Compliance Specialist, Urban Project Coordinator, Species Conservation Specialist, Wildlife Biologist, NRES Economist, Environmental Planner, Radiation Safety Manager, and Soil Conservationist. Other NRES graduates continue their education in environmental law, teaching, or working with research at universities and industry.

Summer Employment and Internships

Students majoring in Natural Resources and Environmental Science are encouraged to spend their summers working or interning for on-the-job experiences or conducting research. One internship or research experience is required for graduation.

Contact Information

NRES Program
Phone: 765-496-0376
Email: nres@purdue.edu

Natural Resources & Environmental Science Major

General 8 Semester Plan

Credits Required for Graduation: 120

Freshman Year

1st Semester - Fall	Credits		2nd Semester - Spring	Credits
AGR 10100 (Intro to the College of Agriculture & Purdue)	0.5		CHM 11200 (General Chemistry 2) - fulfills University Core Science	3
AGR 12200 (Intro to Natural Resources & Environmental Science Academic Program)	0.5		POL 22300 (Intro to Environmental Policy) - fulfills College of Ag's Social Science Selective	3
CHM 11100 (General Chemistry) - fulfills University Core Science	3		STAT 30100 (Elementary Statistical Methods) - fulfills University Core Information Literacy	3
University Core Oral Communication Selective	3		Selective	3
MA 16010 (Applied Calculus 1) - fulfills University Core Quantitative Reasoning	3		International Understanding Selective	3
NRES 12500 (Environmental Science & Conservation) - fulfills University Core Science, Tech, & Society	3			
University Core Humanities Selective	3			
Total	**16**		**Total**	**15**

Sophomore Year

3rd Semester - Fall	Credits		4th Semester - Spring	Credits
BIOL 11000 (Biology I) or BTNY 12000 (Plant Biology I)	4		BIOL 11100 (Biology II) or BTNY 12100 (Plant Biology II)	4
NRES 20000 (Introduction to Environmental Careers)	1		NRES 33800 (Environmental Field Skills)	1
Broadening Science Selective	3		Written or Oral Communication Selective	3
Microeconomics Selective - fulfills University Core Behavioral/Social Sciences	3		Concentration Course*	3
NRES 25500 (Soil Science)	3		Additional Math or Statistics Selective	3
			Data Science Selective	3
Total	**14**		**Total**	**17**

Junior Year

5th Semester - Fall	Credits		6th Semester - Spring	Credits
CHM 25500 or 25700 (Organic Chemistry)	3-4		Ecology Selective	2-3
NRES 42000 (Internship Reporting) - part of Capstone requirement	1		FNR 37500 (Human Dimensions of Natural Resources) or SOC 34400 (Environmental Sociology) - fulfills College of Ag's 300+ Level of Social Science or Humanities Selective	3
International Understanding Selective	3		Concentration Course*	3
Concentration Course*	3		International Understanding Selective	3
ILS 25000 (Intro to GIS)	3		Social Science Selective	3
Elective	3			
Total	**13-14**		**Total**	**14-15**

Senior Year

7th Semester - Fall	Credits		8th Semester - Spring	Credits
AGEC 40600 (Natural Resources & Environmental Economics)	3		NRES 49700 (Current Topics in Environmental Science) - part of Capstone requirement	2
Concentration Course*	3		Concentration Course*	3
Concentration Course*	3		Concentration Course*	3
Science Communication Selective	3		Electives	7-8
Multicultural Awareness Selective	3			
Total	**15**		**Total**	**15-16**

*Concentration courses are determined by the concentration selected.

This is a general plan. Please consult with your assigned academic advisor before making changes.

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2025 - 2026 NRES Student Ambassadors

Student Ambassadors can be a great resource to you while you are here at Purdue. Please feel free to contact one of these juniors or seniors with your questions.

Kendall Amodeo
Environmental Quality & Restoration
kamodeo@purdue.edu

Katelyn Bottando
Environmental Quality & Restoration
kbottand@purdue.edu

Brodie Carr
Watershed Management
carr163@purdue.edu

Aaliyah Carlisle
Environmental Quality & Restoration
carlisl3@purdue.edu

Grace Collins
Environmental Quality & Restoration
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Hanna Dykema
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Paityn Freese
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Elina Gorenstein
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Brooke Lederman
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Grace McRoberts
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Eva Morie
Watershed Management
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Anna Sorg
Climate & Energy Solutions
sorg13@purdue.edu

Marley White
Environmental Policy & Analysis
white860@purdue.edu

Sara Zukowsky
Sustainability Science
zukowsky@purdue.edu

NRES Blog website: https://nrespurdue.wordpress.com/

Nature Night!

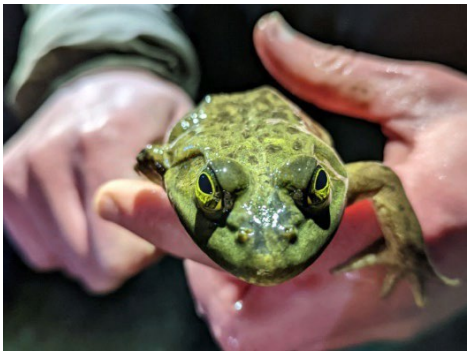
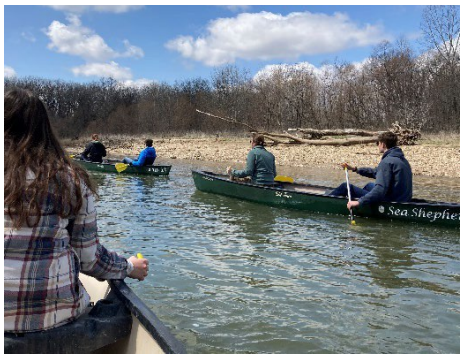
Come and meet the NRES Staff and hang-out with your NRES peers and faculty. This is an excellent opportunity to meet people of similar interest, enjoy FREE FOOD, and get connected with your NRES Student Ambassador mentor!!!!

DATE	TBD
LOCATION	To Be Announced
TIME	5:30 PM

PURDUE UNIVERSITY | Natural Resources and Environmental Science

Top 10 Tips on how to **THRIVE** in your first year at Purdue:

1. **It's OK to be nervous**. Embrace it - step outside your comfort zone. Transitions take time.
2. **Check your Purdue email.** Do not have your Purdue email forwarded to another account. It does not transfer back and forth correctly. Every instructor and department at Purdue will communicate with you through your Purdue email. Get used to checking it daily.
3. **Get organized.** Find a planner that works for you—electronic or paper. Keep track of all of your assignments, exams, and projects in one place, and utilize it daily.
4. **Go to class.** You are paying a lot of money to attend Purdue - make your investment worthwhile.
5. **Study.** Classes will be rigorous, so be prepared. Utilize academic resources on campus and learn how to study effectively. The guideline is two hours of study for each hour inside class. So, for a 15-hour credit load, that would mean an additional 30 hours per week. Going to college is a FULL-TIME JOB!
6. **Get involved.** Go to welcome events and club callouts that interest you. Stick with the ones you really enjoy.
7. **Take care of yourself.** Sleep. Exercise. Eat healthy foods. Drink plenty of water. Life will be very busy, but you need to take care of yourself too!
8. **Choose your friends wisely.** They will impact your behavior and study habits more than you realize.
9. **Don't be anonymous.** Get to know your professors. Go to office hours. Sit in the front of the classroom. Visit the NRES space in FPRD (Forest Products Building) 101. Attend help sessions and study groups.
10. **Ask for help.** It is not unusual to need some extra help or advice. The transition from high school to college can be difficult. There are lots of resources on campus, so take advantage of them!


Environmental Science Club

The Environmental Science Club is a student organization working to increase the education, awareness, and community involvement of its members relating to the environment. Some club activities and events are educational, consisting of lectures by professors and other field experts as well as discussions between members on crucial environmental concerns ranging from the community to a world scale. ESC also focuses on community involvement to help improve environmental quality around campus with fellow student organizations and to give club members hands-on experience with natural area restoration, land management techniques, and invasives species removal at least once a month. We often volunteer with local organizations like NICHES Land Trust to work on land conservation/ ecological restoration projects, Wabash River Enhancement Corporation doing river/ creek clean-ups and stream sampling, and West Lafayette Parks and Recreation helping with tree planting, trail work, and seed collecting. The club also plans regular recreational outings like trips to local nature preserves, canoe floats, wildlife walks, and plant identification hikes open to all Environmental Science Club members. Popular trips in the past have been hikes at Turkey Run State Park and going to Bass Lake Beach!

Some of ESC's 2025-2026 activities:

- Earth Day Fair
- Invasive plant removal work days
- Educational presentations (Eating Bugs!
- Career Fair Preparation, Upcycling)
- Hiking! (Shawnee Bottoms, Prophetstown, and Happy Hollow)
- Amphibian 'Herping' Hikes
- Environmental Trivia
- Seed starting night
- Bob Ross Painting
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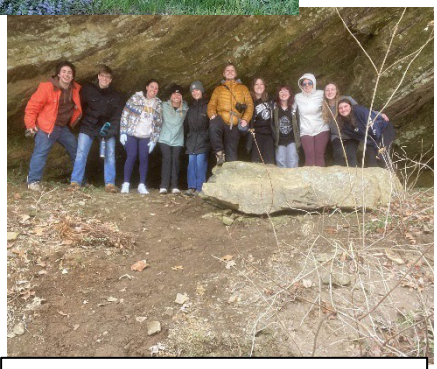
Native flower garden after ESC plug planting and maintenance workdays



ESC winter hike at Portland Arch Nature Preserve- Fountain County, IN

If you are interested, have questions, or would like more information, email esc@purdue.edu
-Also check us out on Instagram and BoilerLink: https://boilerlink.purdue.edu/Organizations