

WASHINGTON STATE UNIVERSITY TRI-CITIES INEF INTERNSHIP PROGRAM & ENERGY AMBASSADORS NETWORK

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WSU TRI-CITIES
Institute for Northwest Energy Futures



ACADEMIC PROGRAMMING

Curriculum development for **career-connected coursework**, **project-based learning** & **energy industry mentorship**: incorporates student research/innovation teams (“incubators”) working with WSU faculty, industry mentors & their peers to address regional & state **energy-related challenges** through

- INEF Internships
- Energy Ambassadors Network (EAN)
- Energy and the Environment Certificate (*in development*)



WHAT ARE AMBASSADORS WORKING ON?

- Identifying pressing research questions & pursuing **collaborative solutions** related to **food, energy & water** (F.E.W.)
- Leveraging F.E.W. **industry resources** in our region
- Studying impacts of **advanced nuclear generation & large loads**
- **Visiting local F.E.W. project sites** (e.g. Odessa water recharge project, Sunrise Orchards agrivoltaics, Mattawa Smart Orchard)
- Exploring strategies for **community engagement & outreach**

THANK YOU PARTNERS & CONTRIBUTORS!

- WSU Tri-Cities Institute for Northwest Energy Futures (INEF), *Chad Kruger, Georgine Yorgey, Yonas Demissie, Joey Franklin, Tejas Ghirmikar*
- WSU Energy Program, *Georgine Yorgey*
- WSU Tri-Cities Energy Curriculum Faculty Team
- WSU Tri-Cities TRIO STEM
- Learner Success Lab- WSU Tri-Cities
- VERTICAL Innovation Cluster
- Pacific Northwest National Laboratory (PNNL)
- Energy Northwest
- Framatome
- Department of Energy: American Made Challenges



Why I became an ambassador...

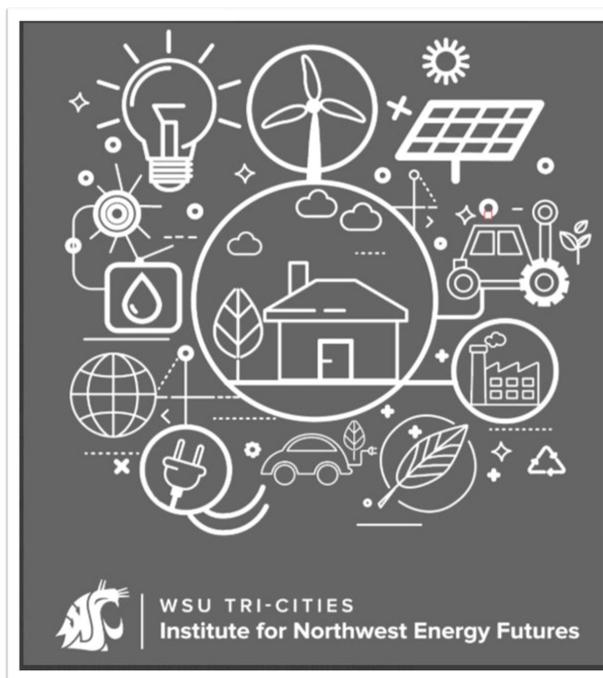


"This is a wonderful opportunity to conduct meaningful research and contribute to shaping the future of the F.E.W. nexus"

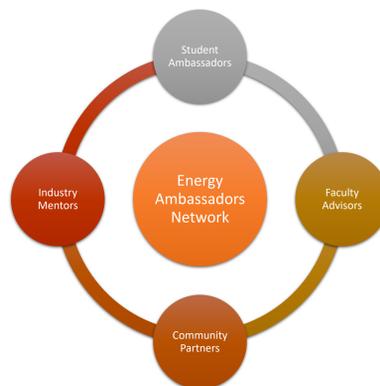
"The opportunity being here in my home, the Tri-Cities, motivated me to join since I want to become a part of the Tri-Cities legacy as a frontier in energy."

"I want to learn about topics people don't think about when approaching from an engineer's mindset--helps me view energy challenges from a different perspective."

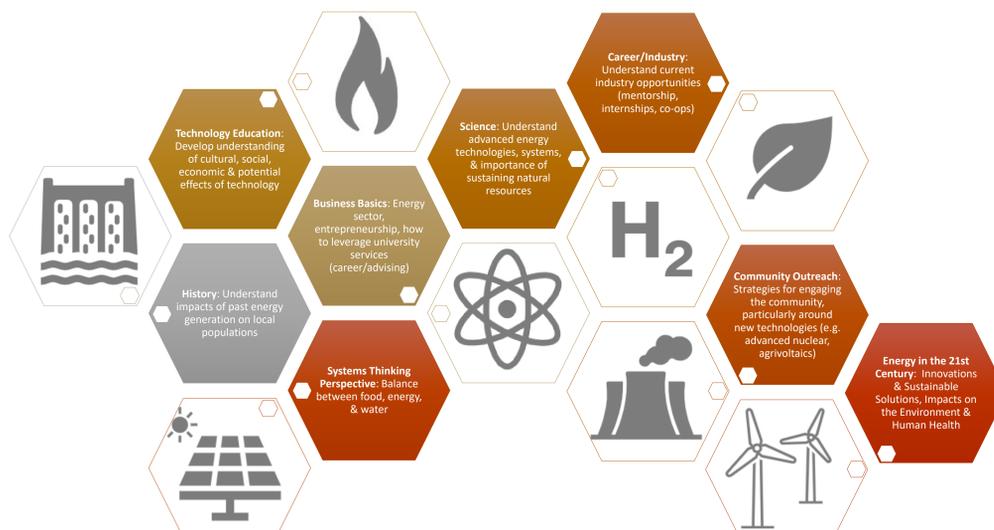
~EAN Students/INEF Interns (Spring 2023-2025)



TIERED-MENTORSHIP MODEL FRAMEWORK



PROGRAM OUTCOMES



INDUSTRY MENTORSHIP + COMMUNITY OUTREACH

- Empower & educate next generation of energy leaders who tackle energy challenges using an **integrated systems approach**
- Students work together with INEF leadership & local experts to **support the region's energy future** by
 - Providing **research assistance**
 - Developing needed **workforce skills**
 - Leveraging **region's energy hub** along with WSU's unique research, education & extension resources
- Growing partnerships with industry & PNNL



PROJECT TOPICS:

- Food-Energy-Water Nexus Amid Transition To A Sustainable Future: *Analyzing Past, Present, & Future F.E.W. Interactions In The Columbia Basin*
- Evaluating Water Use Efficiency & Resource Competition Between Energy Production & Agriculture In The Columbia Basin
- Powering Farms, Cultivating Sustainability: *Solar Energy & AI In Agriculture + Energy Needs for Food Production, Processing, & Storage*
- Evaluating the Impact of Data Centers & AI on Water & Energy Demands in the PNW Region
- Forecast Energy Needs For Ev's, Electric Heat, Load Growth: *Data Collection Snapshot Of Current Electricity & Water Conditions*
- Columbia Basin Water Supply: *Historic & Current Impact on Water Availability + Competition for Water Rights in WA state*

