

Internship Program (PIP)

Opportunity Reference Code: NETL-PIP

Organization National Energy Technology Laboratory (NETL)

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**How to Apply** 

**Application Deadline**: Applications to this opportunity are accepted throughout the year and are reviewed on a rolling basis.

A complete application consists of:

- An application, including academic history, work history experiences, and honors/awards
- Description of your goals, related experience, and related skills – refer to NETL's Core Competencies and ongoing projects when applicable
- Transcripts Click here for detailed information about acceptable transcripts
- · A current resume or CV
- Two educational or professional recommendations You must provide contact information for at least two recommenders in your application. The first two recommendations received will be attached to your application for review by NETL. You may click the "send" (paper airplane) button to send the recommendation request email immediately after entering their information prior to submitting your application; if not, a request will automatically be sent when you submit your application. Your recommenders will receive an email with a subject line of "[Your Name] - ORISE Recommendation Request - [your email]", from Zintellect@orau.org. This email will include information on the opportunity to which you have applied, as well as a secure link to submit a recommendation for you for this application. If you ask the same person to submit a recommendation for you for multiple applications in Zintellect, they must click the unique link in each email request, but will be given the opportunity to copy over what they had previously submitted.

All documents must be in English or include an official English translation.

If you have questions about the application process, contact NETLinfo@orau.org.

#### **Connecting with NETL's Core Competencies**

The Professional Internship Program supports projects in all areas across the Lab. Most internship opportunities are in NETL's Research and Innovation Center, collaborating on energy-related research, but there are also opportunities within facility operations, project management, and other mission support functions. To learn more about ongoing projects, you may visit the NETL website and browse news, core







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competencies, and more. NETL's core competencies include five focus areas that address long-range issues central to environmentally sound and cost-effective energy usage. The sixth core competency – program execution and integration – emphasizes strategic collaborations, market and regulatory analysis, technology transfer, and more. Click through to learn more about each area:

- 1. Strategic Systems Analysis and Engineering
- 2. Energy Conversion Engineering
- 3. Computational Science and Engineering
- 4. Materials Engineering and Manufacturing
- 5. Geological and Environmental Systems
- 6. Program Execution and Integration

To learn more about specific areas, you may conduct a literature search through a relevant search engine. Your institutional library or local public library may provide access to specific databases. The NETL corresponding author(s) can provide more information on ongoing projects; do let them know once you have applied in Zintellect.

After you have submitted an application in Zintellect, you may reach out to internship.program@netl.doe.gov to express your interest in specific projects/areas and request to talk with potential mentors. Be as specific as possible while describing your interests to help us connect you with relevant staff. You must have a completed application in Zintellect to receive a response.

#### **Application Tips**

NETL values a combination of academic success, experience, and leadership potential as demonstrated in all aspects of your application. NETL's goal is to create, maintain, and support a diverse environment that encourages creative ideas and leadership. In the words of former Lab Director Brian Anderson, "our differences make us stronger and we're united in fostering inclusivity in all aspects of our research to drive innovation and deliver solutions for an environmentally sustainable and prosperous energy future." In your application, show us who you are!

To increase your chances of being selected for an appointment, we recommend:

- 1. Reading about NETL projects, and tailoring your responses to align with Laboratory focus areas. What parts of the project(s) are most interesting to you?
- 2. Spending sufficient time on your essay responses and your resume. Give yourself time to review your writing!
- Ensuring that everything you submit is grammatically correct and clearly expressed.



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- Consider using a word processor to draft your answers and then copy and paste into the application.
- Review and edit repeatedly until you have a strong response.
- Ask someone whose judgement you trust to proofread it and make suggestions for improvement.
- o Efficient writing is valued over quantity of writing.
- 4. Submitting the application -- we can't select you if you don't submit an application!
  - To be considered for this opportunity, you must hit the
    "Save & Next" button after providing email addresses
    for your recommenders, then review the information on
    the Submit page. Mark if you agree to the listed terms,
    then click the final "Submit" button. You will receive an
    e-mail once the application is submitted, and the
    application will show it has a "Submitted" status on your
    Zintellect dashboard under "My Applications".
  - Your application will not be considered complete until
    the required recommendations have been received. You
    can check the status of your recommendations on your
    Zintellect dashboard under "My Applications". You may
    "Manage" your recommendations to verify or update
    contact information, add another recommender, and
    resend the recommendation request email, as needed.

#### **Selection Decisions**

Selection decisions are made directly by NETL researchers and staff looking to host an internship, and may be made at any point throughout the year. Your application will be available to potential mentors for up to 12 months, at which point you may you choose to renew it. You may withdraw your application at any time. We recommend connecting with NETL to express your interest in specific projects at NETL, and to learn more about the projects that may be able to support an internship in the future.

## Description

The National Energy Technology Laboratory's (NETL's) record of success has been built on understanding the future of energy and the technologies required to make that future possible. We've long touted our success in developing the technologies that took on acid rain in the 1970s and mercury in the early 2000s. More recently, NETL has a leading role in President Biden's ambitious climate goals, including a carbon emission-free power sector by 2035 and a net-zero economy by 2050.

## **Program Goals**

The Professional Internship Program is designed to introduce undergraduate students and recent Bachelor's graduates to the challenges of conducting energy research, and enable graduate students to further build off their studies an experience as they join the scientific community. Participants interact daily with



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assigned mentors who guide research and project activities during the internship, while they become integral members of project teams.

The program goals include providing the opportunity to participants to:

- · Develop skills and knowledge in their field of study
- Engage with new areas of basic and applied research
- Transition classroom theory into hands-on experience
- · Network with world-class scientists
- Exchange ideas and skills with the Laboratory community
- Use state-of-the-art equipment
- Contribute to answers for today's pressing scientific questions
- Collaborate with the broader scientific and technical communities

#### **Program Details**

- Mentored experience: Selected applicants are matched
  with a mentor who provides active guidance throughout the
  appointment. Internship projects are designed to be handson; precise activities will vary based on the offered project
  match. Under the guidance of their mentor, participants may
  be involved in the entire project cycle, potentially to include
  literature review, experimental design, proposal writing,
  implementation, data capture, documentation, data analysis,
  data visualization, reporting, manuscript writing, and other
  activities.
- Program Dates: Appointment start date and end date varies based on project needs and the selected applicant's availability. New selections are typically made 2-3+ months prior to the desired appointment start date.
  - Students interested in fall internships are encouraged to apply by June 1<sup>st</sup>.
  - Students interested in spring internships are encouraged to apply by October 1<sup>st</sup>.
  - Students interested in summer internships are encouraged to apply by February 15<sup>th</sup>.
     NETL also selects summer interns through agency programs including the Mickey Leland Energy Fellowship, EERE's Summer Internships, the Omni Technology Alliance, the NNSA's Minority Educational Institution Student Partnership Program, the undergraduate Technology Commercialization Internship Program, and the NSF's Mathematical Sciences Graduate Internship. Eligible applicants are encouraged to apply to all opportunities of interest. Application deadlines vary by opportunity.
     PhD candidates interested in a collaborative thesis project may be eligible for DOE's Office of Science Graduate Student Research Program.



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- Duration: Appointment duration varies based on project needs and the selected applicant's availability. Summer appointments are typically 10-12 weeks. Initial appointment offers will be for a maximum of one year in length.
  - Current student appointments are eligible for extensions as long as they remain eligible for the program (e.g., remain enrolled students with an overall GPA of 2.5/4.0 or higher).
  - Post-Bachelor's appointments are eligible for extensions up to two years.
- Hours per week: Expected participation varies by appointment based on project needs and the selected applicant's availability. Appointments may be offered on a part-time basis (typically around 16-20 hours per week) or full-time basis (up to 40 hours of training or research per week). Appointments during the fall and spring semesters are typically offered on a part-time basis for students enrolled in coursework.
- Location: NETL typically hosts interns at our Pittsburgh, Pennsylvania; Morgantown, West Virginia; and Albany, Oregon locations.
  - Some projects require on-site participation. On-site offers may include funds to help offset costs associated with travel to the hosting location.
  - Specific projects may support off-site / remote participation; the hosting mentor could confirm. Some projects may only be able to offer remote participation if a faculty member from the student's home institution can support and collaborate on project activities.
  - All selected applicants must receive approval and clearance from the U.S. Department of Energy prior to their appointment starting. This process requires a physical presence in the United States of America.
- **Stipend**: Participants receive a biweekly stipend based on their educational level. Stipend payments are taxable as an educational benefit. Stipends start at:
  - \$440 per week \$600 per week for undergraduate students
  - \$675 per week \$756 per week for recent Bachelor's graduates
  - o \$675 per week \$1,025 per week for graduate students
- Inbound travel reimbursement: On-site participants who
  must travel over 50 miles to the hosting NETL facility to
  begin their appointment may be eligible for
  inbound/outbound travel reimbursement. Details would be
  included in the appointment offer letter.
- Housing: Participants are responsible for identifying and making arrangements for housing prior to their appointment start date.
- On-station travel: In some cases, participants may be eligible for on-station travel to perform field visits, visit



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collaborator locations, present at or attend conferences or other technical meetings, and other appointment-related activities. Summer appointments typically do not include opportunities for on-station travel.

 Deliverables: To document the effectiveness of the program, participants are required to submit a preappointment and post-appointment survey, as well as a reflection on their appointment experience when they renew or end their appointment. The reflection should summarize their project(s), additional activities, and overall experience. Details are provided as the appointment end date approaches.

Participants may also have the opportunity to contribute to manuscripts, journal articles, book chapters, conference presentations, posters, patents, and other publications as a part of their appointment. Such achievements should also be reported to ORISE; additional details are provided after an offer has been accepted.

#### Qualifications

No previous experience with research or technical projects is required to apply for this opportunity. Do describe any relevant experience you have in your application. Relevant skills that you may have from non-research experiences could include problem-solving, communication, teamwork, organizational skills, and more.

To be eligible for this opportunity, you must:

- · Have one of the following academic statuses
  - An undergraduate student<sup>\*1</sup> in good standing at a regionally accredited college/university<sup>\*2</sup>
  - A recent Bachelor's degree graduate<sup>\*1</sup> who has received the Bachelor's degree from a regionally accredited college/university<sup>\*2</sup> within the last 24 months at time of application
  - A graduate student<sup>\*3</sup> in good standing at a regionally accredited college/university<sup>\*2</sup>
- Have an overall GPA of 2.5/4.0 or higher
- Be at least 18 years of age at the time of application
- Provide confirmation of coverage under a health insurance plan prior to the beginning of the internship

### Citizenship

<sup>\*1</sup> Soon-to-be Associate's degree graduates are eligible to apply if enrolled as a student at time of application.

<sup>&</sup>lt;sup>\*2</sup> Students and recent Bachelor's degree graduates from accredited Community Colleges and Technical Schools are encouraged to apply.

<sup>\*3</sup> Current graduate students interested in a post-graduation opportunity and recent Master's / Doctoral degree graduates are invited to apply to the Postgraduate Research Program.



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This program does not have citizenship restrictions, although specific projects may have citizenship-based restrictions, depending on the sensitivity of the project. Demographic information, including citizenship information, that you provide in your application is not available to potential mentors reviewing applications. If a selected applicant is not a U.S. citizen, they must obtain and provide proof of a valid immigration status allowing us to pay them a stipend. More information may be found at the Guidelines for Non-U.S. Citizens webpage. Once an offer has been made, the ORISE Immigration Services Office will reach out to the selected applicant with details about required immigration-status-related documents.

Selected applicants who are foreign nationals must also receive approval and clearance from the U.S. Department of Energy prior to their appointment starting. This process is initiated by NETL after an appointment offer has been accepted. This process may take more than seven weeks.

# Eligibility Requirements

- Degree: Associate's Degree, Bachelor's Degree, Master's Degree, or Doctoral Degree.
- Overall GPA: 2.50
- Discipline(s):
  - Business (8 ♥)
  - Chemistry and Materials Sciences (12 ⑤)
  - Communications and Graphics Design (3 ●)
  - Computer, Information, and Data Sciences (17
  - Earth and Geosciences (21 ●)
  - Engineering (27 **(27)**
  - Environmental and Marine Sciences (14
  - Life Health and Medical Sciences (48
  - Mathematics and Statistics (11
  - Physics (16 ③)
  - Science & Engineering-related (2 ●)
  - Social and Behavioral Sciences (28
- Age: Must be 18 years of age

#### **Affirmation**

I certify at the time of application that I meet at least one of the following academic status eligibility criteria, at a regionally accredited academic institution:

- I am currently pursuing an undergraduate degree.
- I received a Bachelor's degree no more than 24 months before the date of application.
- I am currently pursuing a master's degree.
- · I am currently pursuing a doctoral degree.