

Newsletter

Special Interest Articles

- Sustainable Alternative Energies Summer Camp

Individual Highlights

- Resources for Teachers
- Virtual Engineering, Innovation, and Cultural Exchange
- Professional Development Opportunities

2021 Sustainable Alternative Energies Summer Boot Camp

An Intensive "Boot Camp" Teacher Training Combining Academic Professional Development with Vocational Site Visits to Alternative Energy Providers

*Thanks to funding provided by:
Frank and Becky Levinson (Session 1)
Duke Energy Foundation (Session 2)*

Hosted on the Rose-Hulman Campus
June 20 - June 25 (Session 1)
July 11 - July 16 (Session 2)

PRISM will be facilitating two different sessions of the Sustainable Alternative Energies Summer Boot Camps for Indiana teachers. The boot camps take place on the Rose-Hulman Institute of Technology campus. STEM teachers, grades 4 -12, teaching units in their curriculum on sustainable and alternative energies are invited to apply. The purpose of this program is to provide the participating teachers a true "boot camp experience" in sustainable alternative energies combining academic professional development with vocational site visits to some alternative energy providers in Indiana. Some site visits may be in the form of virtual visits relative to COVID-19 protocol.

During the boot camps, teachers are to be developing standards-based, practical, and comprehensive lessons for units on sustainable alternative energies. Time will be given each day to help guide the development of lesson plans. Teachers will also be given time to share their ideas and collaborate each day.

Upon completion, and after fully participating in the institute, each teacher will receive a kit of supplies containing materials for all the lab activities done during the institute. Teachers can also receive, upon completion of the institute, 45 Professional Growth Points (PGP's) to apply on their Indiana Teacher's License renewal.

All participants will be housed in a residence hall on the Rose-Hulman Institute of Technology campus during the institute. Meals will be provided through the Food & Dining Services (Café Bon Appetit) in the student union.

continued on Page 2...

2021 Sustainable Alternative Energies Summer Boot Camp

All participants will be housed in a residence hall on the Rose-Hulman Institute of Technology campus during the institute. Meals will be provided through the Food & Dining Services (Café Bon Appetit) in the student union.

Eligibility Requirements:

1. Teachers must be active Indiana teachers teaching units on sustainable alternative energies in grades 4-12.
2. Priority will be given to teachers that have 0-10 years of teaching experience.
3. The Duke Energy Boot Camp (July 11 – 16) has a requirement that ALL participating teachers must reside within a Duke Energy Service area.

| Main Topics | Site visits could include: |
|--------------------------|---|
| U.S. Power Grid | Duke Energy Cayuga Power Plant, Cayuga, IN |
| Energy Conservation | MISO Headquarters, Carmel, IN (Virtual this year) |
| Coal-fired Power Plants | MSD of Wayne Township (Solar Farm and more) |
| Natural Gas Power Plants | NIPSCO Power Plant, West Terre Haute, IN |
| Fuel Cells | Hoosier Energy Merom Power Plant, Merom, IN |
| Solar Energy | Benton County Wind Farms |
| Wind Energy | Natural Gas Combined-Cycle Power Plants |

COVID-19 Protocol:

- All participating teachers must provide a photo of their certificate of COVID-19 vaccination that will be held on file at Rose-Hulman Health Services. Vaccinations (2 shot series, Pfizer & Moderna, or the Johnson and Johnson single shot) must have been completed at least 2 weeks prior to the first day of the boot camp (6/20/21 or 7/11/21).
- In lieu of the vaccination requirement, teachers must provide a negative COVID-19 test result done within 5 days of the first day of the boot camp.
- Students, faculty, staff and all visitors will wear a face mask at all times while inside any Rose-Hulman facility, including common areas, corridors, classrooms, laboratories, conference rooms, and multi-purpose rooms. Outside, face masks are required where physical distancing is difficult to maintain. Everyone should plan to have a mask with them at all times.
- Social distancing is another important aspect of RHIT protocol. Participants need to maintain at least 6 feet from others where possible, eliminate contact with others (hand-shaking, hugging), avoid touching common surfaces where possible, and ensure frequent hand-washing or hand-sanitizing.

Apply online at: www.rose-prism.org. You must create an account on our website. After setting up an account, you will need to click on Event Registration on the front page (left-hand side under Main Menu). Then, click on the drop-down menu and select:

Session 1: Levinson Sustainable Energy Boot Camp 2021

Session 2: Duke Energy Sustainable Energy Boot Camp 2021

Complete the online registration form and submit.

[Contact us](#) if you have any questions.

Resources for Teachers



Project Gutenberg is an online library of free over 60,000 eBooks. Everything from Project Gutenberg is free to readers. No special apps are required to access and read Project Gutenberg eBooks. eBooks can be searched by author, title, subject, language, type, and popularity. This is a tremendous resource for students and teachers at all grade levels and in most content areas. Project Gutenberg's success is due to the hard work of thousands of volunteers over more than 45 years. Donations make it possible to support these volunteers and build the resource library.

For more information: <https://www.gutenberg.org/>



At NeoK12, they believe that kids learn best when they "see" how things work, when, and where they happen. NeoK12 engages kids utilizing quiz games, interactive diagrams, flow charts, puzzles, and brain games. Visual models in these resources actively engage students, sparks curiosity of the students and encourages self-learning. NeoK12 has a school presentation tool that allows teachers to create and share their content with students in a way that

students will be more highly engaged. Teachers can create learning dashboards with select content and specific instructions for students. When student love what they are doing with subject content, they tend to learn more.

For more information: <https://www.neok12.com/>



Teachers at all levels can transform learning content into engaging digital lessons with Curriki. Lessons can become highly interactive learning experiences ready for remote learning by converting and enhancing traditional classroom resources on the Curriki website. Teachers can add interactivity to classroom video lessons by adding "checks for understanding" throughout the video presentation. Classroom lectures can be converted to video lessons that can be made interactive using Curriki resources. Curriki is a

great resource for teachers to learn to build their own interactive online learning experiences for students.

For more information: <https://www.curriki.org/>

Resources for Teachers



AAA Math has a wide range of comprehensive math lessons & exercises for grades K-8. Unlimited practice with math exercises is always available for students of math at AAA Math. There is a wide range of lessons on AAA Math that enable students to learn, review and master the math skills. Lessons and exercises are sorted by subject and grade level so that it is easy for students to find the lessons that they need to review or need help with learning.

For more information: <https://www.aaamath.com/>



TeachEngineering is a digital library of standards-aligned engineering curricula for K-12. The University of Colorado Boulder Engineering School hosts these resources for all STEM educators. Educators have free access to the ever-growing collection of activities, lessons, full units, maker challenges, sprinkles and living labs. Engineering faculty, graduate students, and K-12 teachers from across the U.S. have developed and classroom tested the contents of the TeachEngineering collection. Most curricular contributions are authored by the professors, graduate students and teachers associated with NSF-funded engineering colleges from across the U.S. Specific contributions by individual authors are recognized at the end of every lesson and activity. The collection aligns with state and/or national science, mathematics, and technology education standards.

For more information: <https://www.teachengineering.org/>

Professional Development Opportunities

Virtual Engineering, Innovation, and Cultural Exchange



Stevens
Initiative



In the summer of 2021, Engineering World Health is offering a **free** virtual design program that brings together students from the United States, Lebanon, and Jordan. The course focuses on low-resource design and engineering for healthcare in an international setting. Participants will work together in international teams.

The program is supported by the Stevens Initiative, which is sponsored by the U.S. Department of State, with funding provided by the U.S. Government, and is administered by the Aspen Institute. The Stevens Initiative is also supported by the Bezos Family Foundation and the governments of Morocco and the United Arab Emirates.

Students from Lebanon, Jordan, and the U.S. have the opportunity to work and learn together remotely throughout this course. Materials are curated by our team at EWH and our program partners. The course covers concepts for biomedical design, collaboration, ethics, and entrepreneurship as these topics relate to engineering for low-resource environments. Students will work independently through self-directed learning modules as well as collaborate virtually in groups to further develop design ideas and exchange knowledge. While the coursework is in English, both Arabic and English speakers are welcome, as we will have diverse teams able to facilitate various levels of translation. Teams are led by program mentors from Lebanon, Jordan, or the U.S. with significant engineering background and experience in low-resource hospitals to help them throughout this process.

There are two tracks: Capstone for university students, and Curiosity for high school students.

Curiosity Track:

Criteria: Participants must be high school students or equivalent in the United States, Middle East, or North Africa, between the ages of 14-18 years old.

Dates: The course runs on a four week timeline. Students have the option to choose from the two sections below:

Section 1: July 5 - July 30

Section 2: August 2 - August 27

Commitment: 6 hours/week, meet three times a week with your team and work independently 1-3 hours. Please be aware that meeting times need to accommodate varying time zones (7-9 hour differences).

At the end of the course, students will receive a certificate of completion. On request, EWH will gladly provide summary materials to present to your home school in support of any independent study credit you may seek.

[Sign up here](#). If you have any questions, please email: summerinstitute@ewh.org



Since 2008, ACS Chemistry for Life and Hach have awarded over 700 grants to high school chemistry teachers. These grants are to support teacher ideas that tremendously enhance student learning, foster development of skills by students and reveal real-world chemistry. Teachers can request up to \$1,500.00 for their ideas. Grants are typically awarded to provide teachers with:

- Laboratory equipment and supplies.
- Instructional materials.
- Teacher professional development.
- Student centered activities and field studies conducted by students.

For more information:

<https://www.acs.org/content/acs/en/funding-and-awards/grants/hachhighschool.html>

What PRISM Can Do For You!

- Easily find the perfect teaching and learning resources from our library of over 5,000.
- Store your classroom materials online so that they are available to you from any computer.
- Select from free learning resources that emphasize visualization, rich context, staged-problem solving, and electronically enabled collaboration / communication.
- Save a list of your favorite resources for quick retrieval.
- Reach your students more effectively by using web media for the digital age.
- Augment your own dynamic presence in the classroom with teaching tools that mirror the skills needed for success in higher education and the 21st Century workplace.
- Create and share lesson plans that teach your subjects utilizing your favorite resources.
- Earn PGP points by completing PRISM led online Moodle course – either Beginning Moodle or Intermediate Moodle courses are available to you at no cost several times throughout the year.

*Through our strong support from the **Lilly Endowment** and others, we are constantly growing and improving. Check our site regularly to see what new resources you can use in your classroom.*

www.rose-prism.org