

Renewable Energy – The Future is Here – Exploring and Learning Today

A Summer STEM Camp

May 27 – 31, 2024 -- Hosted on the NWOSU campus in Alva, OK



FREE Summer 2024 STEM Camp for Oklahoma students entering grades 9-12 in fall 2024

Funded by the Oklahoma State Regents for Higher-Education and hosted by Northwestern Oklahoma State University, High Plains Technology Center,



OG&E, and Next Era Energy, *Renewable Energy – The Future is Here – Exploring & Learning Today:* A summer STEM camp will engage



students in hands-on learning with experts in higher-education as well as professionals in the field of renewable energy. Students entering grades



9-12 in the fall of 2024 are eligible to apply. Students will get an inside view of a nacelle, experience with simulators and a climbing tower, and see an operational Renewable Energy Site. Students will learn about the generation and use of electricity as well as an introduction to electronics and robotics. Students will have hands-on experiences with the Renewable Energy Trainer,



a portable Microgrid training device that includes power generation, micro-inverter, and storage using renewable energy technology. Students will also build and assemble a wind turbine, learn about solar power as well as hydroelectric power.

Apply online at <https://www.nwosu.edu/stem-summer-camp>

(applications accepted March 1 – April 1, 2024)

Questions or for more information contact Dr. Tim Maharry @ tjmaharry@nwosu.edu or 580-327-8583



Renewable Energy – The Future is Here – Exploring & Learning Today: tentative camp schedule

Monday, May 27:

9:30-10:30am: Camp check-in, welcome, & orientation at Fryer Hall, NWOSU
10:30am: Introduction to Energy & Electricity (AC/DC)
Noon: Lunch
1:00-2:15pm: Continued Energy & Electricity activities/labs
2:15pm: Break
2:30-4:30pm: Continued Energy & Electricity activities/labs
4:30-5:30pm: Break/Free time
5:30pm: Supper @ Coronado Cafe
6:45pm: Movie at Rialto Theatre

Tuesday, May 28:

8am: Breakfast
9am: Solar Energy Presentation & Activities
Noon: Lunch
1-2:30pm: Solar Energy Labs with the Renewable Energy Trainer
3:00pm: Leave for Alabaster Caverns State Park
4:00pm: Tour of Alabaster Caves
5:30pm: Super at Alabaster Caverns State Park
6:30pm: Travel back to Alva
7:30pm: Evening activities at dorm (movies, games, swimming at Wellness Center, etc)

Wednesday, May 29:

8:00am: Breakfast
9:00am: Travel to High Plains Technology Center in Woodward
10:30am: Activities/training at High Plains (safety training, simulator, wind turbine operation)
12:00pm: Lunch in Woodward
1:00pm: Activities/training at High Plains (SCADA, climbing tower, renewable energy careers)
3:00pm: Leave for wind site tour
3:30pm: Presentation & Tour at Sooner Wind site near Mooreland, OK
5:30pm: Supper in Woodward
6:30pm: Return to Alva
8:00pm: Evening activities at dorm (movies, games, swimming at Wellness Center, etc)

Thursday, May 30:

8am: Breakfast
9am: Introduction to Hydroelectric Power – activities & labs in Robotics lab @ NWOSU
Noon: Lunch
1:00pm: Wind Energy Labs & Activities
3:30pm: Presentation on careers in Renewable Energy by NextEra (including information on the industry, as well as education, training, and employment opportunities in renewable energy)
4:30pm: Break/Free time
5:30pm: Supper
6:30pm: Evening activity (bowling at Cookie's Bowl)

Friday, May 31:

7:30am: Breakfast
8:15am: Travel to OG&E solar plant near Covington, OK
10:00am: Presentation and tour of solar energy facility
11:30am: Lunch in Enid
12:15pm: Return to Alva
1:30pm: Presentation on educational opportunities leading to STEM fields by NWOSU (college readiness, educational programs, financial assistance options for post-secondary education, etc)
2:30pm: camp evaluations/surveys, return to dorms to check out
3:00pm: camp ends