

Renewable Energy – The Future is Here

Exploring and Learning Today – A Summer STEM Camp

June 1 – 6, 2025 -- Hosted on the NWOSU campus in Alva, OK



FREE Summer STEM Camp for Oklahoma students entering grades 9-12 in fall 2025

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 2025 are eligible to apply. Students will get an inside view of a wind turbine 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, and 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, 2025)

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 2025 camp schedule

Sunday, June 1:

6:30-7:30pm: Camp check-in, welcome, & orientation at Cunningham Hall, NWOSU

7:30-8:30pm: Introductions and Ice-breaker/ropes course activities

Monday, June 2:

8am: Breakfast @ Coronado Café

9:00am: Welcome – introduction to power & electricity

9:30am: Introduction to Renewable Energy Careers

10:30am: Introduction to Wind Energy

Noon: Lunch @ Coronado Café

1:00-2:30pm: Continued Wind Energy activities/labs

2:15pm: Break

2:30-4:00pm: Continued Wind Energy activities/labs

4:00-5:30pm: Break/Free time

5:30pm: Supper @ Coronado Café

6:45pm: Movie at Rialto Theatre

Tuesday, June 3:

8am: Breakfast @ Coronado Café

9am: Solar Energy Presentation & Activities

Noon: Lunch @ Coronado Café

1-2:15pm: Solar Energy Labs with the Renewable Energy Trainer

2:15pm: Break

2:30-4:00pm: Continued Solar Energy Labs & Activities

4:00pm: Break/Free time at dorms

5:30pm: Super at Coronado Cafeteria

6:30pm: Visit Bradt's Menagerie

7:30pm: Evening activities at dorm (movies, games, swimming at Wellness Center, etc)

Wednesday, June 4:

8:00am: Breakfast @ Coronado Café

8:45am: Leave for wind site tour

10:00am: Presentation & Tour at Sooner Wind site near Mooreland, OK

12:00pm: Lunch in Woodward

1:00pm: Travel to Alabaster Caverns State Park

2:00pm: Tour of Alabaster Caverns

3:00pm: Return to Alva

4:00pm: Presentation on educational opportunities leading to STEM fields by NWOSU (college readiness, educational programs, financial assistance options for post-secondary education, etc)

4:45pm: Break/free time at dorms

6:00pm: Supper at 818 Diner

7:30pm: Evening activities at dorm (movies, games, swimming at Wellness Center, etc)

Thursday, June 5:

8:00am: Breakfast @ Coronado Café

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 (@ High Plains)

1:00pm: Activities/training at High Plains (SCADA, climbing tower, renewable energy careers)

3:30pm: Activity in Woodward (mini-golf)

5:00pm: Supper in Woodward

6:00pm: Return to Alva

7:30pm: Evening activities at dorm (movies, games, swimming at Wellness Center, etc)

Friday, June 6:

8:00am: Breakfast @ Coronado Café

9:00am: Introduction to Hydroelectric Power (in Buckles Robotics lab in Shockley Hall)

11:15am: camp evaluations/surveys, return to dorms to check out

Noon: camp ends (students check out at Cunningham Hall at noon)