

ALTERNATIVE ENERGY SOLAR

ALTERNATIVE ENERGY - SOLAR



SOLAR ENERGY

Certificate, Associate of Applied Science (AAS)

Crowder offers a variety of degree and certificate options that will propel students into the workforce or allow them to transfer to any of our cooperative programs. Solar students leave with a practical foundation in electricity and renewable energy. The solar program trains students in photovoltaic (PV) electrical systems and passive solar design. Students can earn the NABCEP PV Associate certification. Students take a safety course and can earn their OSHA 10 and AED/CPR certifications.

WHY CROWDER?

In 1992, the Missouri state legislature designated Crowder to serve as the state's alternative and renewable energy education center. Crowder College has won countless awards in alternative energy over the past four decades as students have competed in solar bike and car races, ethanol and electric car challenges and solar house competitions. In 2016, Crowder was awarded a patent for the Bi-Field Solar Geothermal System at the MARET Center. In 2018, the MARET Center was awarded LEED Platinum status for energy innovation and design. Students help maintain the PV and solar thermal systems on campus and participate in internships. (A+ Eligible Program)



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WHAT WOULD MY JOB BE LIKE?

Solar technicians install roof mounted and ground mounted solar panels. They install related equipment including electrical wiring, battery systems, inverters, and racking. Solar technicians inspect and troubleshoot PV equipment and passive solar equipment such as solar hot water systems. They review related manuals, blueprints and schematic diagrams to determine the tasks, tools, equipment and parts needed to maintain safe work practices and solar energy systems.

- Install PV panels, inverters and wiring
- Design electrical systems
- Use power tools
- Work outside
- Do hands-on work
- Troubleshoot electrical problems



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CROWDER COLLEGE
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ALTERNATIVE ENERGY WIND

ALTERNATIVE ENERGY - WIND



WIND ENERGY

Certificate and Associate of Applied Science (AAS)

The Alternative Energy – Wind Certificate and AAS Degree provides students with a practical foundation in renewable energy. The wind program trains students in basic mechanical and electrical systems. Students can earn the Ramsay Wind Turbine Technician certification. Students take a safety course and can earn their OSHA 10 and AED/CPR certifications.

WHY CROWDER?

In 1992, the Missouri state legislature designated Crowder to serve as the state's alternative and renewable energy education center. Crowder College has won countless awards in alternative energy over the past four decades as students have competed in solar bike and car races, ethanol and electric car challenges and solar house competitions. In 2018, the MARET Center was awarded LEED Platinum status for energy innovation and design. Wind students are able to climb and train on the Nordtank NTK 65/13 industrial wind turbine that is on campus. Students maintain the residential turbine that is on campus and design and build their own wind turbines.
(A+ Eligible Program)



ALTERNATIVE ENERGY WIND

ALTERNATIVE ENERGY - WIND

WHAT WOULD MY JOB BE LIKE?

Wind turbine technicians install, inspect, troubleshoot and repair wind turbines. Technicians work with internal and external components such as programmable controllers, gearboxes, yaw drive systems, structural elements and electronic equipment. They review related manuals, blueprints and schematic diagrams to determine the tasks, tools, equipment and parts needed to maintain a highly automated system.

- Monitor turbine performance
- Troubleshoot mechanical & electrical systems
- Read electrical schematics & multimeters
- Climb wind turbines
- Do hands-on work
- Travel



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