CEAT Career Services

Ready Reference A-6

What Can I Do with a Degree In...

Aerospace Engineering

Aerospace Engineers design, develop, test, and help manufacture commercial and military aircraft, missiles, and spacecraft. They develop new technologies specializing in areas such as commercial transports, helicopters, spacecraft, or rockets. Further areas of specialization include: aerodynamics, propulsion, thermodynamics, structures, celestial mechanics, acoustics, and guidance and control systems.

OSU Mechanical & Aerospace Engineering Homepage
http://ww.mae.okstate.edu
American Institute of Aeronautics & Astronautics
http://www.aiaa.org

Architecture

Architecture is the art and science of the design and construction of the built environment. Architects develop design concepts into building images that can then be constructed by others who are part of a team. Projects may range in size from a room to a city, and may involve the planning of a new building or the renovation of an old one.

OSU School of Architecture Homepage
http://www.architecture.ceat.okstate.edu
American Institute of Architects
http://www.aia.org
American Institute of Architecture Students
http://www.aias.org

Architectural Engineering

Architectural Engineers work closely with architects on the design of buildings. Where the architect focuses primarily on space utilization and aesthetics, the architectural engineer is concerned with structure, safety, cost and sound construction methods.

OSU School of Architecture Homepage
http://www.architecture.ceat.okstate.edu
Architectural Engineering Institute
http://www.aeinstitute.org/architectural-engineering/architectural-engineering-institute/

Biosystems & Agricultural Eng.

Biosystems and Agricultural Engineering involves designing stainable systems to produce food, fuel, clothing, and shelter, while providing for a clean and healthy environment. Biosystems and Agricultural Engineering students may choose degree options in Biomechanical, Environmental & Natural Resources, Food or Bioprocessing.

OSU Biosystems Engineering Homepage
http://biosystems.okstate.edu
Architectural Engineering Institute
http://www.asabe.org

Chemical Engineering

Chemical Engineers apply principles of chemistry, physics, and engineering to the design and operation of plants for the production of materials that undergo chemical changes during manufacturing. The plants and processes they design and optimize produce items we use in daily life and help to keep our environment clean.

OSU School of Chemical Engineering Homepage
https://che.okstate.edu/
American Chemical Society
http://www.acs.org
American Institute of Chemical Engineers
http://www.aiche.org

Civil & Environmental Eng.

Civil engineers plan, design, and supervise the construction of facilities essential to modern life such as mass transit systems, airports, water treatment facilities, high-rise buildings, offshore drilling platforms, and other projects.

OSU School of Civil Engineering Homepage
http://cive.okstate.edu
American Society of Civil Engineers
http://www.asce.org
Chi Epsilon Civil Engineering Honor Society
http://www.chi-epsilon.org

Computer Engineering

Computer engineers are involved with the design, construction, and operations of computer systems. In addition to hardware, computer engineers also work with programming.

OSU School of Electrical & Computer Engineering
http://www.ece.okstate.edu
Institute of electrical and Electronics Engineers Computer Society
http://www.computer.org

Construction Engineering

Construction managers use both technical and management skills to plan and build facilities that other engineer and architects. Construction managers are involved with planning the job from start to finish, estimating construction costs, determining the equipment and personnel needs, and supervising the construction. These professional apply knowledge of construction methods and equipment along with principles of planning, organizing, managing, and operating construction enterprises.

OSU Construction Engineering Homepage
http://cmt.okstate.edu
Associated General Contractors
http://www.agc.org
Construction Education Connection
http://www.constructioneducation.com
Association for Project Managers
http://www.apminfo.com

Electrical Engineering

Electrical Engineering is the largest of the engineering disciplines. Electrical engineers are concerned with electrical devices and systems, and with the use of electrical industries. Virtually every industry utilizes electrical engineers.

OSU School of Electrical & Computer Engineering Homepage
https://ece.okstate.edu

Institute of Electrical and Electronics Engineers
http://www.ieee.org

Electrical Engineering Tech.

Electrical Engineering Technology is a relatively specialized application of technical knowledge to produce products and services in the electronics industry. Electrical engineering technology is used in many areas of industry and government, which depend on electronics for control, communication, and computation. Electrical Engineering Technology is "hands-on".

OSU Electrical Engineering Technology Homepage
http://eet.okstate.edu

Fire Protection & Safety Tech.

Fire Protection & Safety Technology focuses on industrial loss control. Reducing loss potential involves designing facilities with special emphasis on life safety, fire resistivity, automatic detection and extinguishing systems. Other areas addressed by FPST are redesigning equipment and processes, air sampling, noise level monitoring, developing practical approaches to compliance, occupation safety, and risk management.

OSU Fire Protection & Safety Homepage
http://fpst.okstate.edu

Industrial Engineering & Mgmt.

Industrial Engineers determine the most effective ways for an organization to use the basic factors of production, people, machines, materials, information, and energy to make or process a product. Industrial engineering is involved with the human and organization aspects of developing systems.

OSU Industrial Engineering & Management Homepage
http://iem.okstate.edu

Mechanical Engineering

Mechanical Engineers apply the principles of mechanics and energy to the design of machines and devices. Perhaps the broadest of the engineering disciplines, mechanical engineering includes three broad technical areas: energy, structures and motions in mechanical systems, and manufacturing

OSU Mechanical Engineering Homepage
https://mae.okstate.edu

American Society of Mechanical Engineers
http://www.asme.org

Mechanical Engineering Tech.

Mechanical Engineering Technology has a wide range of activities including design, development, testing, manufacturing and productions, field service engineering, and marketing and sales. The scope includes transportation, power generation, fluid power, energy conversion, climate control, machine design, manufacturing and automation, and process control.

OSU Mechanical Engineering Technology Homepage
http://www.met.okstate.edu

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