



Planning, managing, and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.



<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Sample Career Specialties / Occupations</p>	<ul style="list-style-type: none"> + Aerospace Engineer Aeronautical Engineer Agricultural Engineer □ Agricultural Technician Application Engineer Architectural Engineer Automotive Engineer + Biomedical Engineer Biotechnology Engineer + Chemical Engineer Civil Engineer Communications Engineer Computer Engineer Computer Hardware Engineer □ Computer Programmer Computer Science Technician Computer Software Engineer Construction Engineer Consultant Development Engineer Drafter Electrical Engineer □ Electrician □ Electronics Technician Energy Transmission Engineer Environmental Engineer Facilities Technician Fire Protection Engineer Geothermal Engineer Hazardous Waste Engineer ❖ Hazardous Waste Technician Human Factors Engineer Industrial Engineer □ Industrial Engineering Technician Licensing Engineer Manufacturing Engineer Manufacturing Technician Manufacturing Processes Engineer + Marine Engineer Materials Engineer Materials Lab & Supply Technician Mechanical Engineer Metallurgic Engineer Mining Engineer Naval Engineer Network Technician Nuclear Engineer Ocean Engineer Operations Research Engineer Packaging Engineer Packaging Technician Petroleum Engineer Pharmaceutical Engineer Plastics Engineer Power Systems Engineer Product Design Engineer Project Engineer Project Manager Prototype Engineer Quality Engineer □ Quality Technician □ Radio/TV Broadcast Technician Radiology Engineer Researcher Safety Engineer Software Engineer □ Sound Technician Structural Engineer □ Survey Technician Systems Design Engineer Technical Sales Manager Technical Writer Telecommunications Engineer Textile Engineer Transportation Engineer 	<ul style="list-style-type: none"> Analytical Chemist Anthropologist Applied Mathematician Archeologist + Astronomer Astrophysicist Atmospheric Scientist Biologist + Botanist CAD Operator Cartographer + Chemist Communications Technologist Conservation Scientist Cosmologist Cryptographer Crystallographer Demographer Dye Chemist Ecologist Economist Electronmicroscopist Environmental Scientist Expert Systems Scientist Geneticist Geologist Geophysicist Geoscientist Herpetologist Hydrologist Ichthyologist Inorganic Chemist Laboratory Technician Mammalogist Marine Scientist Materials Analyst Materials Scientist Mathematician Metallurgist + Meteorologist Microbial Physiologist Mycologist Nanobiologist Nuclear Chemist Nuclear Technician Numerical Analyst Nutritionist + Oceanographer Organic Chemist Ornithologist Paleontologist Physicist Polymer Scientist Programmer Protein Scientist Protozoologist Quality-Control Scientist Radio Chemist Research Chemist Research Technician Science Teacher □ Lab Technician Scientific Visualization / Graphics Expert Spectroscopist Statistician + Technical Writer Technologist Toxicologist + Zoologist
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Pathways</p>	<p style="text-align: center;">Engineering and Technology Science and Math</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Cluster K&S</p>	<p>Cluster Knowledge and Skills</p> <ul style="list-style-type: none"> • Academic Foundations • Communications • Employability and Career Development • Ethics and Legal Responsibilities • Information Technology Applications • Leadership and Teamwork • Problem Solving and Critical Thinking • Safety, Health, and Environment • Systems • Technical Skills <p>Education Needed for Career</p> <ul style="list-style-type: none"> ❖ High School – completed high school, high school with career and technology training, GED, on-the-job training, or apprenticeship □ Junior College – completed junior/community college, postsecondary technical, or career and technology training + Baccalaureate Degree – completed four-year degree or more 	