

CAREER PATHWAYS AND CLUSTERS

The Career Cluster initiative is coordinated by the National Association of State Directors of Career Technical Education Consortium. Career Clusters provide 16 groupings of occupations and associated career pathways that help students explore similarly grouped career options. The Career Cluster is an organization tool that helps students navigate their way to greater success in college and career.

CAREER PATHS

Each of the following career paths have corresponding career clusters with more specific career pathways to help students understand how similar careers may be grouped together.

- **Arts and Communications:** Designed to cultivate students' awareness, interpretation, application and production of visual, verbal and written work.
- **Business, Finance and Information Technology:** Designed to prepare students for careers in the world of business, finance and information services.
- **Engineering and Industrial Technology:** Designed to cultivate students' interest, awareness and application to areas related to technologies necessary to design, develop, install or maintain physical systems.
- **Human Services:** Designed to cultivate students' interests, skills and experience for employment in careers related to families and human needs.
- **Health Services:** Designed to cultivate students' interest in the life, physical and behavioral sciences. In addition, the planning, managing and providing of therapeutic services, diagnostic services, health information and biochemistry research development.
- **Natural Resources Agriculture:** Designed to cultivate students' interest in preserving our agriculture, food and natural resources.



CAREER CLUSTERS

(Suggested elective course lists can be found under the Career Cluster button in the Interactive Program of Studies).

ARTS AND COMMUNICATIONS

Arts, A/V Technology and Communications	
Description:	<p>This cluster offers two different avenues of concentration. Careers in the Performing Arts, Visual Arts or certain aspects of Journalism, Broadcasting and Film require courses and activities that challenge students' creative talents.</p> <p>Careers in Audio-Video Communications Technology, Telecommunications or Printing Technology require strong backgrounds in computer and electronic-based technology and a solid foundation in math and science. All require an ability to effectively communicate in both oral and written form. In addition, the creative aspects of this cluster are rapidly merging with the technological, making it even more challenging. Preparation for careers in this cluster must begin in the early years and continue through high school, allowing students to gain experience in the performing and visual arts as well as in the academic foundations.</p>
Career Pathways:	<p>Audio and Video Technology and Film Journalism and Broadcasting Performing Arts Printing Technology Telecommunications Visual Arts</p>

BUSINESS, FINANCE AND INFORMATION TECHNOLOGY

Business Management and Administration	
Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Business Management and Administration. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes, and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>The Business Management and Administration Cluster prepares learners for careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Career opportunities are available in every sector of the economy and require specific skills in organization, time management, customer service and communication.</p>
Career Pathways:	<p>Administrative Support Business Information Management General Management Human Resources Management Operations Management</p>

Finance

Description:	<p>There are thousands of challenging educational and training opportunities within the high-skilled world of Finance. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges, two-year community colleges, four-year colleges, and career technical schools/ institutes.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>The Finance Cluster prepares learners for careers in financial and investment planning, banking, insurance and business financial management. Career opportunities are available in every sector of the economy and require specific skills in organization, time management, customer service and communication.</p>	
Career Pathways:	Accounting Banking Services Business Finance	Insurance Securities and Investments

Information Technology

Description:	<p>IT careers involve the design, development, support and management of hardware, software, multimedia and systems integration services. The IT industry is a dynamic and entrepreneurial working environment that has a revolutionary impact on the economy and society. In addition to careers in the IT industry, IT careers are available in every sector of the economy from Financial Services to Medical Services, from Business to Engineering and Environmental Services.</p> <p>Anyone preparing for an IT career should have a solid grounding in math and science.</p> <p>A career in IT is challenging and ever-changing. Those who pursue jobs in the IT sector will quickly discover ongoing opportunities to learn about and work with exciting new technologies that are transforming the world. IT education can be obtained in high schools, technical colleges/institutes and universities.</p>	
Career Pathways:	Information Support and Services Network Systems	Programming and Software Development Web and Digital Communications

Marketing

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Marketing. Learners need a solid background in communication, math and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>This diverse Career Cluster prepares learners for careers in planning, managing and performing marketing activities to reach organizational objectives.</p>	
Career Pathways:	Marketing Communications Marketing Management Marketing Research	Merchandising Professional Sales

ENGINEERING AND INDUSTRIAL TECHNOLOGY CAREER CLUSTERS

Architecture and Construction Manufacturing

Description:	The Architecture and Construction Career Cluster is divided into three pathways. Pathways are grouped by the knowledge and skills required for occupations in these fields. Each pathway provides instruction as a basis for success in an array of careers and educational pursuits. This diverse Career Cluster prepares learners for careers in designing, planning, managing, building and maintaining the built environment. People employed in this cluster work on new structures, restorations, additions, alterations and repairs.
Career Pathways:	Construction Design/Pre-Construction Maintenance/Operations

Manufacturing

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Manufacturing. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers. Apprenticeship programs prepare learners for journey-worker status.</p> <p>Industry plays a major role in training and career development by supporting apprenticeships, training, joint industry/school programs and industry training leading to certification and college/university credit.</p> <p>This diverse Career Cluster prepares learners for careers in planning, managing, and performing the processing of materials into intermediate or final products. Careers also include related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.</p>	
Career Pathways:	Health, Safety and Environmental Assurance Logistics and Inventory Control Maintenance, Installation and Repair Manufacturing Production Process	Development Production Quality Assurance

Transportation, Distribution and Logistics

Description:	<p>There are many challenging educational opportunities within the high-skilled world of Transportation, Distribution and Logistics. Students can begin preparing in high school or middle school. Learners need a solid background in communications, math, science and technology.</p> <p>Along the way, career guidance professionals assist students in assessing their educational goals, interests, abilities and skills to ensure a fit to the cluster's many pathway options. Students can participate in coordinated workplace learning experiences such as site visits, job shadowing, and internships. If they choose, they may achieve valuable skill certifications while in high school that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare students for entry-level, professional and technical careers.</p> <p>This diverse Career Cluster exposes students to careers and businesses involved in the planning, management, and movement of people, materials, and products by road, air, rail and water. It also includes related professional and technical support services such as infrastructure planning and management, logistic services, and the maintenance of mobile equipment and facilities.</p>	
Career Pathways:	Facility and Mobile Equipment Maintenance Health, Safety and Environmental Management Logistics Planning and Management Services Sales Transportation Operations and Service	Transportation Systems/Infrastructure Planning, Management and Regulation Warehousing and Distribution Center Operations

Science, Technology, Engineering and Mathematics

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Science, Technology, Engineering and Mathematics. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>A career in science, technology, engineering or mathematics is exciting, challenging, and ever-changing. Learners who pursue one of these fields will be involved in planning, managing, and providing scientific research and professional and technical services including laboratory and testing services, and research and development services.</p>
Career Pathways:	<p>Engineering and Technology</p> <p>Science and Mathematics</p>

HUMAN SERVICES

Education and Training

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Education and Training. Learners need a solid background in academic, technical and presentation/ facilitation skills. The educational background for a career in the education and training field can begin in high schools, technical colleges/institutes, and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees that prepare learners for professional and technical careers.</p> <p>This diverse Career Cluster prepares learners for careers in planning, managing and providing education and training services, and related learning support services. Each year many learners train for careers in education and training in a variety of settings that offer academic instruction, career technical instruction, and other education and training services.</p>
Career Pathways:	<p>Administration and Administrative Support</p> <p>Professional Support Services</p> <p>Teaching and Training</p>

Government and Public Administration

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Government and Public Administration. Learners need a solid background in social studies, political science, foreign language and history. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees that prepare learners for professional and technical careers.</p> <p>Government affects everyone in countless ways. In a democratic society, government is the means of expressing the public will. In fact, virtually every occupation can be found within government. There are some activities unique to government. The federal government defends the public from foreign aggression; represents the nation's interests abroad; deliberates, passes and enforces laws; and administers many different programs. State and local governments pass laws or ordinances and provide vital services to constituents. There are many opportunities in government in every career area. The Government and Public Administration Career Cluster focuses on unique careers only available within government.</p>								
Career Pathways:	<table border="0"> <tr> <td>Foreign Service</td><td>Public Management and Administration</td></tr> <tr> <td>Governance</td><td>Regulation</td></tr> <tr> <td>National Security</td><td>Revenue and Taxation</td></tr> <tr> <td>Planning</td><td></td></tr> </table>	Foreign Service	Public Management and Administration	Governance	Regulation	National Security	Revenue and Taxation	Planning	
Foreign Service	Public Management and Administration								
Governance	Regulation								
National Security	Revenue and Taxation								
Planning									

Hospitality and Tourism

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Hospitality and Tourism. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>The Hospitality and Tourism Cluster prepares learners for careers in the management, marketing and operations of restaurants and other food services, lodging, attractions, recreational events and travel-related services. Hospitality operations are located in communities throughout the world.</p>				
Career Pathways:	<table border="0"> <tr> <td>Lodging</td><td>Restaurants and Food/Beverage Services</td></tr> <tr> <td>Recreation, Amusements and Attractions</td><td>Travel and Tourism</td></tr> </table>	Lodging	Restaurants and Food/Beverage Services	Recreation, Amusements and Attractions	Travel and Tourism
Lodging	Restaurants and Food/Beverage Services				
Recreation, Amusements and Attractions	Travel and Tourism				

Human Services

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Human Services. Learners need a solid background in communication, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>This diverse Career Cluster prepares individuals for employment in career pathways related to families and human needs</p>	
Career Pathways:	<p>Consumer Services</p> <p>Counseling and Mental Health Services</p> <p>Early Childhood Development and Services</p>	<p>Family and Community Services</p> <p>Personal Care Services</p>

Law, Public Safety, Corrections and Security

Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Law, Public Safety, Corrections and Security. Learners need a solid background in math, science and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities. Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees that prepare learners for professional and technical careers. The Law, Public Safety, Corrections and Security Cluster helps prepare students for careers in planning, managing, and providing legal, public safety, protective services and homeland security, including professional and technical support services.</p>	
Career Pathways:	<p>Correction Services</p> <p>Emergency and Fire Management Services</p> <p>Law Enforcement Services</p>	<p>Legal Services</p> <p>Security and Protective Services</p>

HEALTH SERVICES

Health Sciences	
Description:	<p>There are many challenging educational and training opportunities within the high-skilled world of Health Science. Learners need a solid background in math, science, communications, and technical skills. Education and training can be obtained in high schools, technical colleges/institutes and universities.</p> <p>Along the way, career guidance professionals assist learners in assessing their educational goals, interests, abilities and skills to facilitate a good match to the cluster's many pathway options. Learners participate in relevant educational opportunities framed in the context of the cluster. They gain knowledge and skills through coordinated workplace learning experiences such as site visits, job shadowing and internships. If they choose, they may achieve valuable skill certifications that lead to employment. Colleges and universities offer advanced degrees and industry certifications that prepare learners for professional and technical careers.</p> <p>This Health Science Career Cluster orients students to careers that promote health, wellness, and diagnosis as well as treat injuries and diseases. Some of the careers involve working directly with people, while others involve research into diseases or collecting and formatting data and information. Work locations are varied and may be in hospitals, medical or dental offices or laboratories, cruise ships, medivac units, sports arenas, space centers, or within the community.</p>
Career Pathways:	Biotechnology Research and Development Support Services Diagnostic Services Therapeutic Services Health Informatics

NATURAL RESOURCES AGRICULTURE

Agricultural, Food and Natural Resources	
Description:	<p>This diverse Career Cluster prepares learners for careers in the planning, implementation, production, management, processing, and/or marketing of agricultural commodities and services, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products. It also includes related professional, technical and educational services.</p>
Career Pathways:	Agribusiness Systems Animal Systems Environmental Service Systems Food Products & Processing Systems Natural Resource Systems Plant Systems Power, Structural & Technical Systems Architecture & Construction

For more information please visit... www.careertech.org/Career-Clusters