



# The 16 CAREER CLUSTERS



A Career Cluster is a grouping of occupations and broad industries based on commonalities

**MCCTC CBI Program** 



### Agriculture, Food & Natural Resources

The production, processing, marketing, distribution, financing and development of agricultural products and resources including food, fiber, wood products, natural resources, farm and animal products.



#### INTERESTS

Enjoy working outdoors and be physically active Enjoy Nature, taking care of pets, identifying environmental hazards and caring deeply about protecting the environment

#### CAREERS

Agricultural Science Teachers Veterinarians Forest Fire Fighter Food Inspectors and Scientists Game Warden and Animal Breeders Farm workers and laborers, farms and animals Nursery and greenhouse workers

#### SUGGESTED HIGH SCHOOL COURSES

Earth Science, Biology, Chemistry, Agricultural Courses, CAD, Natural Resources, Floral Design, Statistics, Discrete Math, Greenhouse Mgt.

Animal Science

# Architecture

# & Construction

Careers in designing, planning, managing, building and maintaining the construction industry.



#### INTERESTS

Enjoy working with their hands, using tools Have an aptitude for math and science Like solving or analyzing problems Building homes or other structures Building bridges and roadways

#### CAREERS

Architect Brickmason or Cement Mason Electrician or Plumber Carpenter Structural Steel Workers Construction Inspector Elevator Installer/Repairer Roofer

#### SUGGESTED HIGH SCHOOL COURSES

Algebra, Geometry, Construction, Science, Construction Materials, CAD, Computer Courses, Mechanical Drawing, Electricity and Electronics, Blueprint reading, Business Management

**Building Construction and Remodeling** 

Electricity

## Communications, Arts, A/V Tech &

Designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing art and journalism and entertainment services



#### INTERESTS

Drawing pictures or cartoons to amuse people Performing music, drama and or dance Creating an original video or film Sketching or painting pictures Taking photographs Making jewelry, sculpture or ceramics Designing a newspaper layout

#### CAREERS

Graphic Artist Art , Theatre or Music Teacher Newspaper Reporter Photojournalist Author or Writer or Director Musician

#### SUGGESTED HIGH SCHOOL COURSES

Art, Graphic Art, Humanities, Journalism English, Photography, Communications, Music, Political Science, Photography

Creative Arts and Design

## Business, Management & Administration

Planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. These opportunities are available in every sector of the economy.



#### INTERESTS

Running your own business Developing web pages Preparing reports Analyzing data Being a club officer Organizing a school event or fundraiser Managing tasks for a group

#### CAREERS

Accountant or CPA Financial Manager Company Executive (CEO, CFO) Office Manager Public Relations Specialist Management Analyst Billing Clerk

#### SUGGESTED HIGH SCHOOL COURSES

Economics, Business, Accounting, Math, English, Keyboarding, Computers, Marketing, Sports Management, International Relations, Desktop and Multimedia

# Education & Training

Planning, managing and providing education and training services, and related learning support services.



#### INTERESTS

Tutoring or babysitting young children Attending a summer camp Help others draw, write or read Create crafts, art or bulletin boards Play games with spelling, reading or math Coaching sports

#### CAREERS

School Counselor or School Psychologist Teacher or Teacher's Aide College Advisor Day Care Center Director Librarian Vice Principal or Principal

#### SUGGESTED HIGH SCHOOL COURSES

English, Math, Science, History, Teacher Cadet, Sociology, Psychology, Human Development Marriage and Family, Early Childhood Ed. Education courses

Early Childhood Education



Planning, service for financial and investment planning, banking, insurance and business financial management.



#### INTERESTS

Investing money Developing a budget Using spreadsheets and financial computer programs Balancing a checkbook Being a treasurer of a club Organizing a fundraiser Planning a mock stock market game Studying investments and the stock market

#### CAREERS

Appraiser

Financial Institution Manager (Banker) Loan Officer (Mortgage or others) Securities Trader Tax Preparer or Auditor Claim Examiner or Adjuster

#### SUGGESTED HIGH SCHOOL COURSES

Business Math, Computers, Keyboarding, Statistics Economics, Business Law, Algebra, Accounting, English, Marketing, Record Keeping and Data Processing

## Government & Public Adm.

Executing governmental functions to include Governance; National Security, Foreign Service, Planning; Revenue and Taxation; Regulation; and Management and Administration at the local, state and federal levels.



#### INTERESTS

Participating in a debate or on a debate team Learning and speaking a foreign language Making speeches Running for class or club office Volunteering as a legislative aide Campaigning for political candidates

#### CAREERS

Government Investigator (FBI, CIA, DIA) Public Works Director City or Town Manager Congressional Aide Legislative Assistant State Department Official

#### SUGGESTED HIGH SCHOOL COURSES

Accounting, Business Law, Economics, Government Business Management, History, Foreign Languages, Humanities, Sociology, Law, English, Statistics

# HEALTH SCIENCE

Planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services and biotechnology research and development.



Allied Health and Pre-Nursing

Exercise Science and Physical Therapy

**Biomedical Science** 

#### INTERESTS

Learn first aid or CPR Volunteer at a retirement home Learn how the body/mind work Watch medical shows on TV Be a team manager on a school athletic team

#### CAREERS

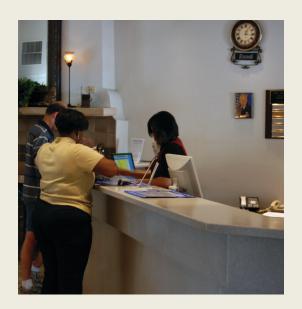
Dietician Athletic Trainer Pharmacist Physician Assistant, Nurse, Radiologic Tech Music or Art Therapist Dentist or Physician or Surgeon Recreational, Occupational Therapists Physical Therapist Dental Lab Technician

#### SUGGESTED HIGH SCHOOL COURSES

Biology, Anatomy, English, Math, First Aid, Chemistry, Psychology, Health and PE, Music and Art

# Hospitality and Tourism

Management, marketing and operations of restaurants and other food services, lodging, attractions, recreation events and travel related services.



#### INTERESTS

Planning vacations or school trips Cooking and baking Participating in sports Exercising and working out Planning school functions Recreational activities Being a lifeguard Reading about other countries and cultures

#### CAREERS

Recreational Leader Camp Counselor Travel Agent Hospitality Manager Hotel Manager Chef/Baker/Server/Cook Tour Director

#### SUGGESTED HIGH SCHOOL COURSES

English, Foreign Languages, Geography, History, Child Care Studies, Physical education, Health, Sociology and Psychology

Culinary Arts

<u>Cosmetology</u>

# HR-HUMAN SERVICES

Preparing individuals for employment in career pathways that relate to families and human needs.



#### INTERESTS

Listening and helping friends with problems Working with the elderly shopping and comparing prices Volunteering Delivering food and clothes to people in need Serving home at a homeless shelter Working with the elderly making family menus

#### CAREERS

Child care worker Recreational Worker Rehabilitation or Substance Abuse Director Deaf Interpreter Associate Nutrition counselor Funeral Director or Clergy

#### SUGGESTED HIGH SCHOOL COURSES

Child Care, Home Economics, Sociology, psychology, Foreign Languages, English/Lit., History, Computer Literacy, Nursing, Early Child Ed., Human Development, Family Living

# IT Information Technology

Design, development, support and management of hardware, software, multimedia and systems integration services.



#### INTERESTS

Play video games Assemble computer parts or repair systems Write software programs Develop web pages Surf the internet Analyzing data or information Documenting and recording information Learn or install software programs

#### CAREERS

Computer System Engineers, Analysts or Architects Database Administrators Network Systems Analysts Web Administrators Business Intelligence Analysts Computer Security Specialists

#### SUGGESTED HIGH SCHOOL COURSES

Advanced Math courses, Keyboarding, Computers Information Systems, Computer New work Administrator, IT Engineering, Applied technology, Web Design, Law and Ethics

Networking and Cybersecurity

Software Development

Law Public Safety, and Security Planning, managing and providing legal, public safety, protective services and homeland security, including professional and technical support.



#### INTERESTS

Reading mystery novels or watching mystery movies Following court cases in the news Volunteering to search for missing pets or children Participating in a search and/or rescue training Volunteering for the local fire department

#### CAREERS

Attorney or District Attorney Corrections Officer Court Reporter or Clerk Police Officer or Detective Polygraph Examiner Firefighter or Inspector Forensic Artist Paralegal Probation and Parole Officer

#### SUGGESTED HIGH SCHOOL COURSES

Law, Government, EMT, History, Psychology, Sociology, Data Processing, Computer Literacy, Health & PE First Aid, Math, Office Administration

Public Safety

# Manufacturing

Planning, managing and performing the procession of materials in into intermediate or final products and related professional and technical support activities as production planning and the control, maintenance and engineering of products.



Advanced Manufacturing

#### INTERESTS

Sewing, weaving, knitting or other projects Building things such as wood projects Taking machine shop classes Repairing machinery Stalling and repairing home stereo equipment Working with leather goods Operating a printing press

#### CAREERS

Machine Operator Welder Cabinetmaker or Furniture maker Textile Inspector, Tester Health and Safety Specialist Industrial Psychologist Operations Research Analyst Laborer

#### SUGGESTED HIGH SCHOOL COURSES

Math, Industrial Arts, Shop Mechanics Mechanical Drawing, Geometry, Chemistry Business Management, Computer Concepts Electricity and Electronics, Blueprint Reading,

## Marketing, Sales & Service

Planning, managing and performing marketing activities to reach organization objectives.



#### INTERESTS

Give people advice on products they buy Sell products for fundraisers Take tours of houses for sale Design and model clothes Decorate homes or rearrange furniture Likes working with numbers Enjoys shopping Setting up a fashion show

#### CAREERS

Real Estate Agent or manager Real Estate Appraiser Fashion or Floral Designer Retail Store Manager or Clerk Customer Service Representative Sales manager Fashion Model

#### SUGGESTED HIGH SCHOOL COURSES

Intro to Business, Marketing, Art, Retail Sales, Business Math, Accounting, Keyboarding, Computer Literacy, Art, Office Education, General Merchandising, English

# Science Technology, Engineering & MATH

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



#### Engineering and Robotics STEM

#### INTERESTS

Collecting rocks or fossils Identifying plants and animals Conducting science experiments Watching the weather Designing and test vehicles or planes Developing new products or machinery Stargazing Designing experiments

#### CAREERS

Anthropologist Physicist Environmental Scientist Engineer (nuclear, industrial, Chemical, Civil, Petroleum) Aerospace Engineer Computer Hardware Engineer

#### SUGGESTED HIGH SCHOOL COURSES

Earth Science, Biology, Chemistry, Physics, Anatomy Advanced math, Advanced Science, Computer Technology, English, Drafting, Statistics

# Transportation n, Distribution & Cogistics

Planning, management and movement of people, materials and goods by road, pipeline, rail, air, and water and related services such as transportation, infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Automotive Technologies

Custom Auto Paint, Design, and Repair

Diesel Power Tech

Aviation Maintenance

#### INTERESTS

Playing with automobiles or trains Loves flying

Loves boating

Interested in knowing how machines work Interested in fixing all types of machines Interested in the distribution of goods

#### CAREERS

Commercial Pilots Traffic Technicians Transportation Specialist Aerospace technicians Air Cargo Handlers Bus and Auto Mechanics Motorboat Mechanics Electrical Equipment Installers





#### SUGGESTED HIGH SCHOOL COURSES

Math and Science Electricity and Electronics, Transportation and Distribution Courses, Logistics, Diesel Technology Occupation Outlook Handbook

2 1. Type in <u>www.bls.gov/ooh</u> and click enter. You should see this: COH HOME | OCCUPATION FINDER | OCH FAQ | OCH GLOSSARY | A Z INDEX | OCH SITE MAP | EN ESPAÑOL Go Search Handbook OCCUPATIONAL OUTLOOK HANDBOOK Occupational Outlook Handbock ~ EN ESPAÑOL Home The OOH can help you find career information on duties, education and training, pay, and outlook for hundheds of occupations. OCCUPATION GROUPS SELECT OCCUPATIONS BY 2016 Median Pay On the job Training. Architecture and Engineering Entry Level Education. . Arts and Design Number of New Jobs (Projected) . Growth Rate (Projected) • GO Building and Grounds Cleaning **Business and Financial** FEATURED OCCUPATION Community and Social Service Computer and Information Technology **Financial Analysts** Construction and Extraction Financial analysts provide guidance to businesses and Education Training, and Library individuals making investment decisions. They assess the Entertainment and Sports performance of stocks, bonds, and other types of Farming, Fishing, and Forestry investments. Lood Preparation and Serving view profile » Healthcare Installation, Maintenance, and Repair Legal Life, Physical, and Social Science A-Z INDEX Management Malh ABCDEEGHIJKLMNOPOBSIUVWXY 3 Media and Communication Military **BROWSE OCCUPATIONS** Office and Administrative Support

1

- 1. From here you have a couple of options. You can click on any of the occupations groups to the left.
- 2. You can type the name of the occupation in the "search handbook" box.
- 3. You can click on the first letter of the occupation and it will take you to a list of occupations that start with that letter.

# Career Research Assignment

