“If you don’t know where you’re going, you’ll end up somewhere else.”
Where am I Going?

THE CONCEPT OF CAREER CLUSTERS

Career Clusters identify the knowledge and skills learners need as they follow a pathway toward their career goals. The knowledge and skills identified form a strong basis for learner success whether the learners are in high school, college, technical training or in the workplace. The career clusters also provide a means of exploring the many occupational options.

Each Cluster is divided into different pathways. Pathways are grouped by the knowledge and skills required for occupations in these career fields. Each pathway provides instruction as a basis for success in an array of careers and educational pursuits.

The U.S. Department of Education’s Career Clusters provide a way for schools to organize instruction and student experience around 16 broad categories that encompass virtually all occupations from entry through professional levels.
CAREER CLUSTERS
The 16 clusters and sample occupations for each are:

**Agricultural & Natural Resources**
- Food Scientist
- Environmental Engineer
- Horticulturist
- Animal Scientist
- Biochemist
- Veterinarian Assistant

**Arts, A/V Technology & Communications**
- Actor
- Video Producer
- Journalist
- Audio Engineer
- Telecommunications Technologist
- Printing/Graphics Technologist

**Architecture & Construction**
- Contractor
- Architect
- Electrician
- Heavy Equipment Operator
- Carpenter
- Plumber

**Business & Administration**
- Human Resource Administrator
- Administrative Specialist
- Financial Analyst
- International Trade Manager
- Entrepreneur
- Accountant

**Education & Training**
- Teacher
- Principal
- School Counselor
- College Professor
- Corporate Trainer
- Coach

**Finance**
- Stock Broker
- Banker
- Insurance Agent
- Financial Planner
- Loan Officer
- Tax Examiner

**Health Science**
- Physical Therapist
- Radiologic Technologist
- Occupational Therapist
- Medical Assistant
- Hospital Administrator

**Hospitality & Tourism**
- Lodging Manager
- Chef
- Travel & Tourism Manager
- Food Service Manager
- Restaurant Manager
- Leisure & Entertainment Manager

**Human Services**
- Social Worker
- Psychologist
- Child Care Worker
- Substance Abuse Specialist
- Employment Specialist
- Psychotherapist

**Information Technology**
- Software Engineer
- Network Administrator
- Web Designer/Developer
- Database Manager
- Technical Writer
- Multimedia Producer

**Law & Public Safety**
- Attorney
- Fire Fighter
- Police Officer
- Judge

**Manufacturing**
- Machinist
- Manufacturing Engineer
- Automated Process Technician
- Production Engineer/Technician
- Welding Technician
- Quality Technician

**Government & Public Administration**
- Legislator
- City Manager
- Policy/Budget Analyst
- Recreation/Parks Director
- State/Federal Agency Director
- Urban/Regional Planner

**Retail/Wholesale Sales & Service**
- Sales Associate
- Interior Designer
- Marketing Director
- Buyer
- Real Estate Broker
- Customer Service Representative

**Scientific Research/Engineering**
- Chemical Engineer
- Mathematician
- Bio Technologist
- Electrical Engineer
- Biologist
- Oceanographer

**Transportation, Distribution & Logistics**
- Pilot
- Automotive Technician
- Logistics Manager
- Flight Attendant
- Warehouse Manager
- Truck Driver
AGRICULTURE, FOOD & NATURAL RESOURCES

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.

**The Seven Pathways**

- Food Products & Processing Systems
- Plant Systems
- Animal Systems
- Power, Structural & Technical Systems
- Natural Resource Systems
- Environmental Service Systems
- Agribusiness Systems

**Employment Outlook**

Employment opportunities will continue to increase for those who provide and market an expanding array of food, forest, and veterinary medical consumer products to a growing world population. Continued globalization of the food, agricultural and natural resources system will increase opportunities for graduates who understand the socio-economic factors that define international markets. Graduates who know how to satisfy the diverse consumer needs and preferences in different cultures, and who have the language skills to communicate effectively, will have the best opportunities to be employed by the growing number of multi-national businesses.
ARCHITECTURE & CONSTRUCTION

This diverse Career Cluster prepares learners for careers in designing, planning, managing, building and maintaining the building environment. People employed in this cluster work on new structures, restorations, additions, alterations and repairs.

The Three Pathways

- Design/Pre-Construction
- Construction
- Maintenance/Operations

Employment Outlook

Architecture and construction comprise one of the largest industries in the United States. Based on the latest statistics, this career cluster has 13.8 million jobs. In the next few years, many new jobs will be added and many employment opportunities will result from the need to replace experienced workers who leave jobs.
ARTS, A/V TECHNOLOGY & COMMUNICATIONS

Broadly, individuals that work in the AV communications industry manufacture, sell, rent, design, install, integrate, operate, and repair the equipment of audiovisual communications. They are involved in the presentation of sound, video, and data to groups in such venues as corporate boardrooms, hotels, convention centers, classrooms, theme parks, stadiums, and museums. The major activity sectors in the AV communications industry are distributive service firms (AV dealers, rental companies, consultants, designers, and related firms), manufacturers of AV presentations and communications products, and large end-users.

THE SIX PATHWAYS

- Audio/Video Communications Technology
- Broadcasting, Film & Journalism
- Performing Arts
- Printing Technology
- Telecommunications
- Visual Arts

Employment Outlook

Most observers expect the job growth rate within AV industries to be at 20-30% for the foreseeable future. In just the AV systems technician field, the industry could expect to add 20,600 jobs annually.
BUSINESS, MANAGEMENT & ADMINISTRATION

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.

The Six Pathways

• Management
• Business Financial Management & Accounting
• Human Resources
• Business Analysis
• Marketing
• Administration & Information Support

Employment Outlook

The business management and administration services industry is projected to be one of the fastest growing through the year 2008. Nearly half of all jobs are in managerial and professional occupations, and nearly one-fourth of all workers are self-employed. The business management and administration services industry is one of the highest-paying industries. In the next few years, many new jobs will be added and many openings will result from the need to replace experienced workers who leave jobs.
EDUCATION & TRAINING

This diverse Career Cluster prepares learners for careers in planning, managing and providing education and training services, and related learning support services. Millions of learners each year prepare for careers in education and training in a variety of settings that offer academic instruction, vocational and technical instruction, and other education and training services.

The Three Pathways

• Teaching and Training
• Professional Support Services
• Administration and Administrative Support

Employment Outlook

A growing emphasis on improving education and making it available to more Americans will increase the overall demand for workers in the Education and Training Cluster. Employers are expected to devote greater resources to job-specific training programs in response to the increasing complexity of many jobs, the aging of the work force, and technological advances that can leave employees with obsolete skills. This will result in particularly strong demand for training and development specialists across all industries.
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.

The Four Pathways

• Financial and Investment Planning
• Business Financial Management
• Banking and Related Services
• Insurance Services

Employment Outlook

The finance industry is a critical sector of the United States economy with over six million people employed in finance-related occupations. Although some of the finance occupations project only moderate growth through the year 2008, the advances in technology and trends toward direct marketing provide exciting and challenging opportunities for careers across all areas of the cluster. In the next few years, many new jobs will be added and many openings will result from the need to replace experienced workers who leave jobs.
GOVERNMENT & PUBLIC ADMINISTRATION

Government affects Americans in countless ways. In a democratic society, government is the means of expressing the public will. This includes a variety of activities. In fact, virtually every occupation can be found within government. There are, however, some activities that are unique to government. The federal government defends us from foreign aggression; represents American 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 those careers that are unique to government and not contained in another Career Cluster.

The Seven Pathways
• Governance
• National Security
• Foreign Service
• Planning
• Revenue and Taxation
• Regulation
• Public Management and Administration

Employment Outlook
Because of its public nature, the factors that influence federal government staffing levels are unique. The Congress and President determine the government’s payroll budget. Each Presidential Administration and Congress have different public policy priorities, which increase levels of federal employment in some programs and decrease federal employment in others.

State and local government employment is projected to increase approximately 12 percent during the next decade. Employment growth will stem from a rising demand for services at the state and local levels. An increasing population, along with state and local assumption of responsibility for some services previously provided by the federal government, is fueling the growth of these services.
HEALTH SERVICES

Health Services is one of the largest industries in the country, with more than 11 million jobs, including the self-employed. The health services industry includes establishments ranging from small-town private practice physicians who employ only one medical assistant to busy inner city hospitals that provide thousands of diverse jobs. More than half of all non-hospital health service establishments employ fewer than five workers. On the other hand, almost two-thirds of hospital employees were in establishments with more than 1,000 workers.

The Four Pathways

- Therapeutic
- Information
- Environmental
- Diagnostic

Employment Outlook

Wage and salary employment in the health services industry is projected to increase more than 25 percent through 2010, compared with an average of 16 percent for all industries. Employment growth is expected to account for about 2.8 million new jobs – 13 percent of all wage and salary jobs added to the economy over the 2000-2010 period.

Note: Adapted from information currently available.
HOSPITALITY & TOURISM

The Hospitality and Tourism Cluster prepares learners for careers in the management, marketing and operations of restaurants and other food services, lodging, attractions, recreation events and travel-related services. Hospitality operations are located in communities throughout the world.

The Four Pathways

• Restaurant and Food/Beverage Services
• Lodging
• Travel and Tourism
• Recreation, Amusements and Attractions

Employment Outlook

Travel and tourism is one of the largest and fastest-growing industries in the world. Each year, travel and tourism employers around the world pay more than $1.6 trillion in wages and salaries and create 12.5 million new jobs. Beginning salaries depend on the employee’s skills, education and job level at a hotel, restaurant, tourism office, recreation facility, amusement park or attraction site. Salaries range from entry-level wages to six figures. This industry is known for promoting from within and for its large number of young managers.
HUMAN SERVICES

This diverse Career Cluster prepares individuals for employment in career pathways related to families and human needs.

The Five Pathways

- Early Childhood Development and Services
- Counseling and Mental Health Services
- Family and Community Services
- Personal Care Services
- Consumer Services

Employment Outlook

Based on the latest statistics, more than 7.2 million people are employed in human services occupations. Faster than average employment growth through the year 2010, coupled with high turnover, should create numerous employment opportunities.
INFORMATION TECHNOLOGY

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, Business to Engineering and Environmental Services.

Anyone preparing for an IT career should have a solid grounding in math and science.

The Four Pathways

• Network Systems
• Information Support & Services
• Interactive Media
• Programming/Software Engineering

Employment Outlook

Even in times of economic downturn, there is still a large market for people with IT skills in organizations of all sizes. ITAA expects continued growth opportunities within the IT field.
LAW, PUBLIC SAFETY & SECURITY

The Law, Public Safety 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.

The Five Pathways

• Correction Services
• Emergency and Fire Management Services
• Security and Protective Services
• Law Enforcement Services
• Legal Services

Employment Outlook

Renewed national interest in public safety and security should help expand opportunities for employment in the Law, Public Safety and Security Cluster. Numerous job openings will stem from employment growth attributable to the desire for increased corporate, industrial and homeland security. Also, a more security-conscious society and concern about drug-related crimes should contribute to the increasing demand.
MANUFACTURING

All careers in Manufacturing require you to have a strong mechanical ability, specialized skills, communication skills and computation skills. You will be required to apply problem solving, make decisions, and work in a team environment.

Preparation for careers in Manufacturing must begin in the elementary grades and continue through high school allowing students to gain experience in applied, real-time manufacturing situations. Students will also find it advantageous to participate in a post-high school program that will expand some skills in specific jobs that meet the requirements of the employer.

The Four Pathways

• Production
• Production Planning and Control
• Manufacturing Engineering
• Industrial Maintenance

Employment Outlook

As technology advances, each worker has the opportunity to produce more, so fewer workers are needed. However, there are excellent opportunities in manufacturing where technology and career pathways provide for satisfying careers. In 2000, manufacturing was the 3rd largest jobs division, behind services and retail trade. Manufacturing, which is considered a goods-producing industry is expected to account for 1.3 million new jobs. This represents a modest job increase.

Note: Adapted from information currently available.
MARKETING, SALES & SERVICE

This diverse Career Cluster prepares learners for careers in planning, managing and performing marketing activities to reach organizational objectives.

The Seven Pathways

- Management and Entrepreneurship
- Professional Sales and Marketing
- Buying and Merchandising
- Marketing Communications and Promotion
- Marketing Information Management and Research
- Distribution and Logistics
- E-Marketing

Employment Outlook

According to the latest statistics, there are 16 million jobs in sales and related occupations. Advertising, marketing, promotions, public relations and sales managers hold more than 700,000 jobs. Over 300,000 high-paying management positions are likely to be available over the next decade. Employment opportunities for retail salespeople are expected to be good. Individuals with a college degree or computer skills will be sought for managerial positions in sales, logistics, management information systems, marketing and e-marketing.
A career in science, technology, engineering or mathematics is exciting, challenging, and ever-changing. Learners who pursue one of these career 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.

The Two Pathways

• Science and Mathematics

• Engineering and Technology

Employment Outlook

Given the critical nature of much of the work in science, technology, engineering and mathematics, job possibilities abound even in times of economic downturn. More scientists, technologists and engineers will be needed to meet environmental regulations and to develop methods of cleaning up existing hazards. A shift in emphasis toward preventing problems rather than controlling those that already exist, as well as increasing public health concerns, also will spur demand for these positions.
TRANSPORTATION, DISTRIBUTION & LOGISTICS

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.

The Seven Pathways

- Transportation Operations
- Logistics Planning and Management
- Warehousing and Distribution Center Operations
- Facility and Mobile Equipment Maintenance
- Transportation Systems/Infrastructure Planning, Management and Regulation
- Health, Safety and Environmental Management
- Sales and Service

Employment Outlook

Transportation, distribution and logistics is a critical sector of the United States economy. Almost 10 million people are employed in transportation or transportation-related occupations. High-growth industry and career specialties offer high-tech, high-wage opportunities. This industry sector represents over 11 percent of the gross domestic product, and is among the fastest growing of all sectors. The Bureau of Labor Statistics projects a 14.7 percent increase in employment in this sector through 2008. There will be a growing number of career opportunities in a variety of professional and technical occupations as well as high-paid, entry-level occupations that can provide career advancement opportunities.
INFORMATION AND CAREER RESEARCH

The next few pages will explain how to access information about various careers.

Family Members and Friends are good sources of first-hand knowledge. Ask them about:

- Their careers and related fields
- Anticipated skill requirements in their fields
- The job market
- Necessary certifications
- Their working environments
- Pay and other benefits
- Possible future developments in their industries
- Educational requirements for entry level, intermediate level, and advanced level

Don’t be shy asking people about their careers. People love to talk about themselves. Set up “informational interviews” or job shadow experiences to ask questions. Make a site visit!

School or Career Counselors help students plan for the future. A counselor may use career assessment instruments, computerized information systems, or other resources to help you to connect what you know about yourself with what you know about careers. School counselors can’t make your career decisions for you. They can provide you with resources and guidance to assist you in this decision-making process. What you get out of this information depends on your effort and input.

Job Shadowing – Request the opportunity to observe someone doing a job you might like to do in the future. Your counselor may be able to arrange this for you.

Co-op/Internships are short term, full or part time, paid or non-paid positions developed between student, employers and faculty, which allow students to gain on-the-job experience related to their academic program. These positions are possible springboards to regular permanent employment. (Depending on the school, students can earn academic credit toward their degree or an honorary mention in their transcripts for having held a co-op or internship position.)
Libraries often have a “career section” full of valuable material. You can find information about:

- Career planning skills
- Specific jobs
- Trends in the job market
- College, universities and training programs

Ask a reference librarian for help locating career materials, including:

- Occupational Outlook Handbook
- Encyclopedia of Careers and Vocational Guidance
- Dictionary of Occupational Titles

Professional trade associations and unions may provide information about related careers and training requirements. Unions may also sponsor training programs for people interested in specific careers.

You can get names and addresses of these organizations at the library in the Encyclopedia of Associations.

The Illinois Employment and Training Center of DuPage County offers services to help people explore career and training opportunities. It has a career resource center where you can gather information on careers, learn about training requirements, find out where to get training for specific careers, and access computerized information systems. Career counseling available by appointment, call 630-495-4345, extension 274.

The DuPage County Employment Center is located at 837 South Westmore-Meyers Road in Lombard. Call (630) 495-4345, Ext. 1, for directions. Hours are Monday through Friday from 8:00 AM to 5:00 PM, Wednesdays open until 7:00 PM.
INFORMATIONAL INTERVIEWING

What is it?
The Informational Interview is the key tool that will assist you in obtaining the information that you need to learn more about careers that you may enjoy. You can get all this straight from the people who currently work in the field.

What are the purposes of the career information interview?
· To obtain information about an individuals’ experiences in career areas of your choice.
· To meet others who share your enthusiasm, have similar talents and interests, and are putting these factors to use in their careers. These people may also know about the “hidden job market” in their fields and can share this information with you.
· To gain experience, self-confidence and skill in interviewing with others about yourself and your career interests.

How do I do it?
Select an occupation you would like to know more about. Read all you can about the occupation. That is the first step in career awareness. Once you’ve done your research, you can arrange to meet someone who does that job. See if your friends or relatives can give you a contact name. If not, call the place where this type of person would be employed.

Ask if you can have 15 to 20 minutes of this person’s time to find out more about this kind of occupation. It is very hard for someone to deny you a few minutes of his or her time. If they do, be persistent and say you will call them next week to arrange for a more convenient time.

You will need to prepare some questions for your meeting.

Here are some sample questions
· How did you get into this field? (Educational background, career path)
· What is your typical day like?
· What do you like most about your job? What do you like least about your job?
· What skills are necessary for the type of work that you do? What trends do you see for these occupations in 2 – 5 years?
· Can you refer me to other individuals in this career field or related career field who would be helpful in discussing these same issues?
Follow-Up

Send a thank you note for your informational interview. At a later date, if you are still interested in the occupation, you can call this person back and inform him/her that you are very serious about getting into the field. Then ask him/her how they suggest you would get started. You are not asking him/her for a job, but you are using this person as a contact. This is a potential way for you to learn about job openings.

MORE INFORMATIONAL INTERVIEW QUESTIONS

1. What is your job title?
2. How long have you been in this position?
3. How did you get started in this type of work?
4. Would you describe your present job responsibilities and duties?
5. How do you spend a typical day?
6. What training or education did you receive for this position?
7. What do you like best about your job? What do you like least?
8. What do you think are some important things that a person going into this type of work should know?
9. Does this kind of work have a good future?
10. What future career goals do you have?
11. Did any of your past jobs prepare you for this one?
12. What kinds of courses did you need in college to prepare you for this job?
13. How big a factor was college in helping you obtain this kind of job?
14. What has contributed to your career success up to the present time?
15. What are some of the problems you have encountered on your job? How have you resolved them?
16. In what way has your present job prepared you for greater responsibilities?
17. How did you decide to become an (attorney, nurse, auto technician, etc.)?
18. Have you had any additional training or education since you completed school?
19. How do you think school contributed to your overall career development?
20. How did you spend your summers while you were in school?
21. What are your hours of work? How much vacation time do you get?
22. Can you describe your work environment?
23. What advice can you give me?
24. Would you be willing to give me referrals to other people in your career field?
Select an occupation that you have an interest in and complete this worksheet using career research guides and an informational interview.

**Occupation** - ________________________________

What are the major job responsibilities?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

What types of organizations typically hire for this career field?
______________________________________________________________________
______________________________________________________________________
______________________________________________________________________

What are the working conditions? (hours, days/nights, environment)
______________________________________________________________________
______________________________________________________________________

What education is needed for this job?
______________________________________________________________________
______________________________________________________________________

What is the employment outlook for this field?
______________________________________________________________________
______________________________________________________________________

What is the salary range for this position? (entry level and with experience)
______________________________________________________________________
______________________________________________________________________

What are some related career fields?
______________________________________________________________________

What is my overall impression of how I would “fit” with this career field?
______________________________________________________________________
______________________________________________________________________