



FIND YOUR FUTURE IN CAREER PATHS & CAREER CLUSTERS

**Manufacturing**

- Production
- Manufacturing Production
- Process Development
- Maintenance, Installation and Repair
- Quality Assurance
- Logistics and Inventory Control
- Health, Safety and Environmental Assurance

**Science, Technology, Engineering and Mathematics**

- Engineering and Technology
- Science and Math

**Human Services**

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

**Architecture and Construction**

- Design and Pre-Construction
- Construction
- Maintenance and Operations

**Transportation, Distribution and Logistics**

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

**Hospitality and Tourism**

- Restaurants and Food and Beverage Services
- Recreation, Amusement and Attractions
- Travel and Tourism
- Lodging

**Government and Public Administration**

- Public Management and Administration
- Governance
- National Security
- Foreign Service
- Planning
- Revenue and Taxation
- Regulation

**Health Science**

- Biotechnology Research and Development
- Therapeutic Services
- Diagnostics Services
- Health Informatics
- Support Services

**Industrial & Engineering Technology**

Building & Fixing Path

**Human Services**

Helping Path

**Law, Public Safety, Corrections and Security**

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

**Education and Training**

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

**Health Services**

Health Path

**Essential Knowledge & Skills**

- Academic Foundations
- Ethics & Legal Responsibilities
- Systems Leadership & Teamwork
- Informational Technology Applications
- Employability & Career Development
- Problem Solving & Critical Thinking
- Safety, Health & Environmental
- Communications
- Technical Skills

**Natural Resources Agriculture**

Nature Path

**Arts & Communication**

Creative Path

**Business, Management & Technology**

Business Path

**Agriculture, Food and Natural Resources**

- Food Products and Processing Systems
- Plant Systems
- Animal Systems
- Power, Structural and Technical Systems
- Natural Resources and Environmental Systems
- Agribusiness Systems

**Arts, A/V Technology and Communications**

- Audio and Video Technology and Film
- Printing Technology
- Visual Arts
- Performing Arts
- Journalism and Broadcasting
- Telecommunications

**Finance**

- Accounting
- Insurance
- Banking Services
- Business Finance
- Securities and Investments

**Information Technology**

- Network Systems
- Information Support and Services
- Web and Digital Communications
- Programming and Software Development

**Business Management and Administration**

- General Management
- Human Resources Management
- Business Information Management
- Administrative Support
- Operations Management

**Marketing**

- Marketing Management
- Marketing Communications
- Marketing Research
- Professional Sales
- Merchandising



ESSENTIAL SKILLS FOR ALL STUDENTS

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# Career Clusters 15 Critical Components Implementation Guide

## Critical Component 1: Administrative Support

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
The college or school administrators and school board members support the concept of the career emphasis/focus (cluster) process and components. They provide scheduled chunks of time for the cluster team (administration, teaching faculty, industry and education partners, and career counseling staff) to meet together, offer professional development opportunities for the cluster team, and encourage learner participation and parent and community support.	The college or school administrators and school board members are informed of the Career Cluster. They think it is a good idea but do not spend time with the cluster team or have a clear perception of the process or components.	The college or school administrators are not particularly in favor of the Career Cluster and the faculty members are on their own to try to figure out how to implement the program. The school board knows little about the Career Cluster and does not see its value since it is not an academic program.

## Critical Component 2: Shared Planning

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
The entire Cluster Curriculum Team has regularly scheduled time for program planning and curriculum design. They have the equivalent of at least one full day each month to work together and compare learner progress and curriculum effectiveness.	The Teaching team has a schedule that allows for weekly, shared program planning, curriculum design and other Career Cluster related activities.	Teaching teams are not acknowledged and must try to do planning and other preparation during lunch, before or after school.

## Critical Component 3: Career Development

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
Each learner in the Career Cluster has a scheduled meeting with a career counselor, teacher advisor, or faculty advisor on at least two occasions each school year to develop and revise as necessary an individual career education plan (plan of study). Parents are included in the career planning sessions. Learners base their career plans on a number of career awareness and exploration experiences.	The Teaching team has a schedule that allows for weekly, shared program planning, curriculum design and other Career Cluster related activities.	Learners do not have a career education plan. They only see a counselor if they are having problems in school or wish to change a class.

## Critical Component 4: Professional Development

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
The entire Cluster Team jointly participates in professional development activities that help build their knowledge, skills, and abilities in the selected Career Cluster and the application to teaching methodology.	The Teaching team is provided resources and release time to attend at least one professional development activity each year.	Release time for professional development is not made available for other than school related in-service sessions.

## Critical Component 5: Standards-Based Curriculum

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
Curriculum is designed to include both the Career Cluster Foundation and Pathway Knowledge and Skills, industry standards, and appropriate academic standards. Curriculum enhances and reinforces academic content and, as a result, improves both Career Cluster and academic achievement.	Curriculum is focused on academic content. Little attention is paid to the Career Cluster Foundation Knowledge and Skills.	Traditional curriculum is offered. It may not be standards based.

## Critical Component 6: Parent and Community Support

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
Parents and/or guardians/mentors are informed of the program content, participate in the career decision-making process, and support the program in various settings. Community groups offer program support through sponsorships and marketing. They assist with identifying workplace learning sites and building industry partnerships.	Parents/guardians and community groups receive notification of the selected Career Cluster. They are invited to participate.	Parents/guardians and community groups are not actively involved in the Career Cluster. They receive responses as requested.

## Critical Component 7: Education Partnerships

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
Elementary school, middle school, high school, career technical school, college, university, and adult skill center faculty are included in the Career Cluster team, as appropriate, to assure a learning continuum. Partnerships are formalized -- interdisciplinary and sequential -- across levels of education.	Partnerships are formal or informal and may be limited to specific teaching faculty and courses.	Education partnerships have not been developed.

## Critical Component 8: Business and Industry Partnerships

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
Partners are fully engaged as Cluster Team members. They are representative of the entire Career Cluster. The representatives participate in planning and development as well as assist in classroom and workplace implementation and support.	Industry partnerships are limited to individual classroom participation based on one to one relationships.	Industry partnerships have not been developed.

## Critical Component 9: Multi-Measure Assessment

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
Assessment includes both cumulative (projects, research papers, portfolios, workplace learning or community service) and on-demand (multiple choice, presentation, demonstration, scenario response) measures and meets the criteria for several disciplines.	Assessment is limited to on-demand modalities or a single cumulative modality and only measures content for one discipline.	Assessment is traditional, e.g., multiple choice, matching, essay and true-false items.

## Critical Component 10: Interdisciplinary Teams

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
The Cluster Teams work collaboratively to offer the curriculum in an interdisciplinary approach. The content is typically designed around a common theme or project with a culminating activity, product, or service as a result of the instruction.	Teachers from two disciplines work together to connect content around a common theme or project.	Teachers work independently in single disciplines. Content is not connected.

## Critical Component 11: Flexible Schedules

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
School schedules are flexible and allow for interdisciplinary team managed blocks of time as needed for projects, labs, and other action-based activities.	Blocks of time are assigned to particular disciplines.	The school schedule is organized in traditional blocks of time.

## Critical Component 12: Integrated Curriculum

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
The curriculum is developed and taught by the Cluster Team. The content is multidisciplinary and based on academic and Career Clusters Foundation Knowledge and Skills and taught within the context of the selected Career Cluster industry. Career Cluster content is strengthened by the integration of academic concepts.	The curriculum is enhanced, expanded or reinforced through collaboration between an academic and a career technical teacher.	Integration is unilaterally determined by the career technical teacher.

## Critical Component 13: Creative and Innovative Teaching Strategies

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
Team-building, critical-thinking, and problem-solving activities are incorporated into the program. All content is reinforced through application and practice.	Instruction is limited to use of applications to reinforce the content.	The content is taught in traditional lecture, read and test mode.

## Critical Component 14: Workplace Learning

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
All learners participate in workplace learning experiences consistent with their career goals. The workplace learning is directly related to and consistent with the classroom instruction.	Each learner has limited job shadow experience opportunities. The experience is related to the learners' career goals.	Workplace learning is not a part of the program.

## Critical Component 15: Student-Centered Learning

LEVEL 3: EXCELLENT	LEVEL 2: IN PROGRESS	LEVEL 1: NO PROGRESS
Learners are involved in the design and development of their coursework based on their interests, career goals and consistency with the standard(s) to be met.	Learners are provided with an outline of the course with expected outcomes. They are given a list of project topics from which to make a selection.	Curriculum is offered in a traditional mode with teachers presenting the information.