

## DOCUMENT RESUME

ED 345 078

CE 061 172

**TITLE** Resource Conservation. Ohio's Competency Analysis Profile.

**INSTITUTION** Ohio State Univ., Columbus. Vocational Instructional Materials Lab.

**SPONS AGENCY** Ohio State Dept. of Education, Columbus. Div. of Vocational and Career Education.

**PUB DATE** Apr 92

**NOTE** 34p.; For related documents, see ED 338 827-852 and CE 061 142-176.

**AVAILABLE FROM** Vocational Instructional Materials Lab, Ohio State University, 1900 Kenny Road, Columbus, OH 43210-1090 (\$1.50).

**PUB TYPE** Guides - Classroom Use - Teaching Guides (For Teacher) (052)

**EDRS PRICE** MF01/PC02 Plus Postage.

**DESCRIPTORS** Cartography; Competence; \*Competency Based Education; \*Conservation (Environment); Construction Management; Employment Potential; Entry Workers; Equipment Maintenance; Facility Planning; Grounds Keepers; Job Analysis; Job Skills; Landscaping; \*Natural Resources; Occupational Information; Postsecondary Education; Safety; Secondary Education; Soil Conservation; Task Analysis; Turf Management; \*Water Quality; \*Wildlife Management

**IDENTIFIERS** DACUM Process; Ohio

**ABSTRACT**

Developed through a modified DACUM (Developing a Curriculum) process involving business, industry, labor, and community agency representatives in Ohio, this document is a comprehensive and verified employer competency profile for resource conservation occupations. The list contains units (with and without subunits), competencies, and competency builders that identify the skills needed to enter these occupations. The occupational, academic, and employability skills for this occupation or occupational area are included. Within the outline are three levels of items: core, advancing, and futuring. Core items identify the knowledge, skills, and attitudes essential for entry-level employment. These items are required to be taught and will be the basis for questions on the state vocational competency tests. Advancing items identify the knowledge, skills, and attitudes needed to advance in the occupation; futuring items identify the knowledge, skills, and attitudes needed to enter and remain in a given occupation 3 to 4 years from now. Titles of the 13 units are as follows: general safety precautions; resource conservation industry; water quality management; soil conservation; mapping; nature interpretation; fish and wildlife management awareness; groundskeeping; equipment maintenance; equipment operation; facility construction and maintenance; business management; and employability skills. (YLB)

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# O C A P

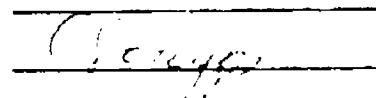
## OHIO'S COMPETENCY ANALYSIS PROFILE

### RESOURCE CONSERVATION

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EO61172



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# What is OCAP?

"A comprehensive and verified employer competency list will be developed and kept current for each program." This is the second objective of Imperative 3 of the *Action Plan for Accelerating the Modernization of Vocational Education: Ohio's Future at Work*. Ohio's Competency Analysis Profile (OCAP) lists are the Division of Vocational and Career Education's response to that objective. OCAP lists evolve from a modified DACUM process involving business, industry, labor, and community agency representatives from throughout Ohio. The OCAP process is directed by the Vocational Instructional Materials Laboratory at The Ohio State University's Center on Education and Training for Employment.

## How is OCAP used?

Each OCAP contains units (with and without subunits), competencies, and competency builders that identify the occupational, academic,\* and employability skills needed to enter a given occupation or occupational area. Within that outline there are three levels of items: core, advancing, and futuring. Core items identify the knowledge, skills, and attitudes essential for entry-level employment. These items will be the basis for questions on the state vocational competency tests (scheduled to begin in school year 1993-94). Advancing items (marked with one asterisk) identify the knowledge, skills, and attitudes needed to advance in a given occupation. Futuring items (marked with two asterisks) identify the knowledge, skills, and attitudes needed to enter and remain in a given occupation three to four years from now.

School districts may add as many units, subunits, competencies, and/or competency builders as desired to reflect local employment needs, trends, and specialties. Local advisory committees should be actively involved in the identification and verification of additional items. Using OCAP lists, instructors will be able to formulate their vocational courses of study and monitor competency gains via the new criterion-referenced competency testing program that will be directly tied to the competencies identified on the OCAP lists.

\*Academic competencies have not been identified for all OCAPs. At a later date math, communication, and science competencies will be released.

The **Employability Skills** portion of this list was verified by the following employer panel:

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# Ohio Competency Analysis Profile Resource Conservation

## Unit 1: General Safety Precautions

### Competency 1.0.1: Maintain safe work environment

#### *Competency Builders:*

- 1.0.1.1 Read and follow safety information
- 1.0.1.2 Organize and maintain clean and safe work area
- 1.0.1.3 Identify hazardous materials and location of material safety data sheets (MSDSs)
- 1.0.1.4 Store hazardous materials according to manufacturer's specifications
- 1.0.1.5 Comply with shop and equipment safety rules
- 1.0.1.6 Identify and report safety hazards
- 1.0.1.7 Correct safety hazards
- 1.0.1.8 Install and maintain safety devices
- 1.0.1.9 Comply with responder first-aid and cardiopulmonary resuscitation (CPR) certification standards
- 1.0.1.10 Complete accident report\*
- 1.0.1.11 Identify environmental issues pertaining to the industry, health administration, Environmental Protection Agency (EPA), Food and Drug Administration (FDA), and state and federal regulations\*
- 1.0.1.12 Monitor regulation updates\*

### Competency 1.0.2: Demonstrate safe work habits

#### *Competency Builders:*

- 1.0.2.1 Read and follow label information
- 1.0.2.2 Wear protective clothing and equipment
- 1.0.2.3 Use safe lifting and carrying methods
- 1.0.2.4 Interpret information on signs
- 1.0.2.5 Check working condition of respirator
- 1.0.2.6 Observe safety precautions when applying chemicals and fertilizer
- 1.0.2.7 Observe safety precautions when storing chemicals and fertilizer
- 1.0.2.8 Follow personal cleanup procedures after handling chemicals and fertilizer
- 1.0.2.9 Use self-contained breathing apparatus\*\*

\* Advancing  
\*\* Futuring

## **Resource Conservation--4/92**

### **Competency 1.0.3: Operate and maintain equipment**

#### *Competency Builders:*

- 1.0.3.1 Follow state, federal, and/or manufacturer's safety rules for equipment operation and maintenance
- 1.0.3.2 Observe and comply with safety zones around equipment
- 1.0.3.3 Operate equipment defensively
- 1.0.3.4 Interpret safety symbols
- 1.0.3.5 Maintain and use slow-moving-vehicle signs
- 1.0.3.6 Keep riders off mobile equipment
- 1.0.3.7 Maintain equipment safety shields
- 1.0.3.8 Shut down and lock out/tag out power equipment before servicing
- 1.0.3.9 Identify and correct potential equipment safety hazards
- 1.0.3.10 Follow manufacturer's service recommendations
- 1.0.3.11 Use alternative fuels\*\*

### **Competency 1.0.4: Respond to critical incidents**

#### *Competency Builders:*

- 1.0.4.1 Observe and identify hazardous situations
- 1.0.4.2 Report situations to supervisor
- 1.0.4.3 Initiate follow-through procedures
- 1.0.4.4 Initiate response\*
- 1.0.4.5 Complete incident report\*

## **Unit 2: Resource Conservation Industry**

### **Competency 2.0.1: Demonstrate understanding of industry**

#### *Competency Builders:*

- 2.0.1.1 Identify fields of endeavor
- 2.0.1.2 Identify economic importance of industry
- 2.0.1.3 Identify environmental importance of industry
- 2.0.1.4 Identify employment opportunities
- 2.0.1.5 Identify regulatory aspects of industry
- 2.0.1.6 Identify continuing-education opportunities
- 2.0.1.7 Identify professional organizations and trade journals
- 2.0.1.8 Identify state licensing requirements

### **Competency 2.0.2: Examine plant physiology and growth**

#### *Competency Builders:*

- 2.0.2.1 Describe woody and herbaceous plants
- 2.0.2.2 Identify plant parts
- 2.0.2.3 Identify photosynthesis process
- 2.0.2.4 Identify functions of roots, stems, and leaves
- 2.0.2.5 Identify requirements for healthy plant growth
- 2.0.2.6 Identify taproot and fibrous root systems
- 2.0.2.7 Identify differences between evergreen and deciduous plants

\* Advancing  
\*\* Futuring

**Competency 2.0.3: Identify and classify plants**

*Competency Builders:*

- 2.0.3.1 Classify plants as monocots or dicots
- 2.0.3.2 Identify plants according to common names
- 2.0.3.3 Identify purpose of binomial nomenclature
- 2.0.3.4 Classify plants as annuals, biennials, or perennials
- 2.0.3.5 Identify environmental plant preferences
- 2.0.3.6 Classify plants according to growth habit
- 2.0.3.7 Identify plants according to scientific names\*
- 2.0.3.8 Update endangered species lists\*\*

**Competency 2.0.4: Follow legal regulations**

*Competency Builders:*

- 2.0.4.1 Follow general safety precautions
- 2.0.4.2 Identify and explain boating regulations
- 2.0.4.3 Identify and explain fishing regulations
- 2.0.4.4 Identify and explain littering regulations
- 2.0.4.5 Identify and explain swimming regulations
- 2.0.4.6 Post legal regulations
- 2.0.4.7 Identify and explain park regulations
- 2.0.4.8 Identify and explain game laws
- 2.0.4.9 Identify and explain stream, lake, pond, and groundwater laws
- 2.0.4.10 Identify and explain outdoor burning regulations
- 2.0.4.11 Monitor regulation updates\*\*

**Competency 2.0.5: Identify and classify common animal species**

*Competency Builders:*

- 2.0.5.1 Follow general safety precautions
- 2.0.5.2 Identify mammals and explain their life histories
- 2.0.5.3 Identify birds and explain their life histories
- 2.0.5.4 Identify reptiles and explain their life histories
- 2.0.5.5 Identify amphibians and explain their life histories
- 2.0.5.6 Identify invertebrates and explain their life histories
- 2.0.5.7 Identify fish and explain their life histories

**Competency 2.0.6: Examine interdependency of ecosystem**

*Competency Builders:*

- 2.0.6.1 Identify relationship between communities of ecosystem
- 2.0.6.2 Identify major plant biomes
- 2.0.6.3 Differentiate renewable and nonrenewable resources
- 2.0.6.4 Identify communities
- 2.0.6.5 Recycle materials\*\*

\* Advancing  
\*\* Futuring

## Unit 3: Water Quality Management

### Competency 3.0.1: Identify and assess stream dynamics

#### *Competency Builders:*

- 3.0.1.1 Follow general safety precautions
- 3.0.1.2 Identify a watershed area
- 3.0.1.3 Identify disturbances and destructive forces
- 3.0.1.4 Determine stream profile
- 3.0.1.5 Evaluate stream corridor improvement
- 3.0.1.6 Identify nonpoint source pollution
- 3.0.1.7 Measure stream velocity\*
- 3.0.1.8 Measure stream volume\*

### Competency 3.0.2: Determine water quality parameters

#### *Competency Builders:*

- 3.0.2.1 Follow general safety precautions
- 3.0.2.2 Measure turbidity
- 3.0.2.3 Measure pH
- 3.0.2.4 Measure temperature
- 3.0.2.5 Measure dissolved oxygen
- 3.0.2.6 Profile dissolved oxygen and temperature
- 3.0.2.7 Survey macroinvertebrates
- 3.0.2.8 Identify pollution sources
- 3.0.2.9 Identify water quality indicators
- 3.0.2.10 Measure alkalinity
- 3.0.2.11 Measure residue content\*
- 3.0.2.12 Measure fecal coliform count\*
- 3.0.2.13 Measure phosphorus level\*
- 3.0.2.14 Measure nitrate level\*
- 3.0.2.15 Measure sulfate level\*
- 3.0.2.16 Measure chloride level\*
- 3.0.2.17 Determine water quality index\*
- 3.0.2.18 Interpret water test results\*

## Unit 4: Soil Conservation

### Competency 4.0.1: Identify soil characteristics

#### *Competency Builders:*

- 4.0.1.1 Follow general safety precautions
- 4.0.1.2 Define soil horizons
- 4.0.1.3 Calculate land slope
- 4.0.1.4 Determine soil texture
- 4.0.1.5 Determine soil structure
- 4.0.1.6 Determine soil type
- 4.0.1.7 Determine soil drainage
- 4.0.1.8 Determine soil productivity

\* Advancing

\*\* Futuring

**Competency 4.0.2: Conserve soil**

*Competency Builders:*

- 4.0.2.1 Follow general safety precautions
- 4.0.2.2 Determine land capability classification
- 4.0.2.3 Determine erosion rates
- 4.0.2.4 Interpret aerial photos
- 4.0.2.5 Interpret soil survey maps
- 4.0.2.6 Identify erosion types
- 4.0.2.7 Identify erosion causes
- 4.0.2.8 Identify soil erosion control methods
- 4.0.2.9 Use infrared mapping\*\*
- 4.0.2.10 Use remote sensors\*\*

**Unit 5: Mapping**

**Competency 5.0.1: Conduct a basic survey**

*Competency Builders:*

- 5.0.1.1 Follow general safety precautions
- 5.0.1.2 Measure distance
- 5.0.1.3 Use and maintain tripod level
- 5.0.1.4 Read target rod
- 5.0.1.5 Use and interpret hand signals
- 5.0.1.6 Record field notes
- 5.0.1.7 Determine allowable error
- 5.0.1.8 Calculate acreage
- 5.0.1.9 Draw a field layout
- 5.0.1.10 Locate bench mark\*
- 5.0.1.11 Take backsight reading\*
- 5.0.1.12 Take foresight reading\*
- 5.0.1.13 Perform bench level circuit survey\*
- 5.0.1.14 Use technological advancements\*\*

**Competency 5.0.2: Interpret topographic maps**

*Competency Builders:*

- 5.0.2.1 Follow general safety precautions
- 5.0.2.2 Identify legal descriptions
- 5.0.2.3 Identify map symbols
- 5.0.2.4 Interpret map legend
- 5.0.2.5 Determine true and magnetic north
- 5.0.2.6 Draw a profile using contour lines
- 5.0.2.7 Measure distance
- 5.0.2.8 Identify terrain type
- 5.0.2.9 Interpret elevation
- 5.0.2.10 Identify direction of water flow
- 5.0.2.11 Determine area

\* Advancing  
\*\* Futuring



## Resource Conservation--4/92

### Competency 5.0.3: Orient to field position

#### *Competency Builders:*

- 5.0.3.1 Follow general safety precautions
- 5.0.3.2 Follow compass course
- 5.0.3.3 Locate objects in field
- 5.0.3.4 Orient compass to topographic maps
- 5.0.3.5 Adjust compass to local declination
- 5.0.3.6 Use back bearings
- 5.0.3.7 Pace out distances
- 5.0.3.8 Determine area
- 5.0.3.9 Measure distance
- 5.0.3.10 Draw field layout
- 5.0.3.11 Draw metes and bounds\*
- 5.0.3.12 Utilize satellite tracking\*\*

## Unit 6: Nature Interpretation

### Competency 6.0.1: Demonstrate interpretive abilities

#### *Competency Builders:*

- 6.0.1.1 Follow general safety precautions
- 6.0.1.2 Lead nature hike for a group
- 6.0.1.3 Prepare an interpretative exhibit or display
- 6.0.1.4 Present an interpretive slide show
- 6.0.1.5 Present a program
- 6.0.1.6 Develop an interpretive publication
- 6.0.1.7 Lead an interpretive activity
- 6.0.1.8 Use computerized displays\*\*

### Competency 6.0.2: Develop interpretive skills

#### *Competency Builders:*

- 6.0.2.1 Use field guides and keys
- 6.0.2.2 Operate audiovisual equipment
- 6.0.2.3 Label a scientific collection
- 6.0.2.4 Explain folklore and history of area
- 6.0.2.5 Identify target audience's level of understanding
- 6.0.2.6 Identify interpretive styles
- 6.0.2.7 Identify interpretive tools and aids

\* Advancing  
\*\* Futuring

## Unit 7: Fish and Wildlife Management Awareness

### Competency 7.0.1: Identify angling materials and methods

#### *Competency Builders:*

- 7.0.1.1 Identify types of rods and reels
- 7.0.1.2 Identify artificial and natural baits and lures
- 7.0.1.3 Identify habitat for nature bait
- 7.0.1.4 Identify angling types for sport fishing
- 7.0.1.5 Complete aquatic education course\*

### Competency 7.0.2: Identify fish management techniques

#### *Competency Builders:*

- 7.0.2.1 Follow general safety precautions
- 7.0.2.2 Identify farm pond construction and multiple-use concepts
- 7.0.2.3 Identify construction design features conducive to effective fish management
- 7.0.2.4 Identify acceptable and unacceptable farm pond species for stocking
- 7.0.2.5 Identify fish-stocking guidelines
- 7.0.2.6 Identify role of acceptable fish species to be introduced
- 7.0.2.7 Identify valued sport fish species
- 7.0.2.8 Determine acceptable level of owner management
- 7.0.2.9 Determine owner purpose of water area
- 7.0.2.10 Identify fish harvest guidelines
- 7.0.2.11 Identify fish-sampling methods
- 7.0.2.12 Identify average age growth information for sport fish
- 7.0.2.13 Identify fish population renovation methods
- 7.0.2.14 Recognize need for population assessment of predator species
- 7.0.2.15 Recognize need to assess growth rates for predator species
- 7.0.2.16 Recognize economic importance of recreational fisheries
- 7.0.2.17 Identify fish population management practices
- 7.0.2.18 Recognize actions which would shorten recreational life of a water area
- 7.0.2.19 Locate aquatic endangered species list
- 7.0.2.20 Develop fish management plan\*

### Competency 7.0.3: Identify aquatic vegetative management

#### *Competency Builders:*

- 7.0.3.1 Follow general safety precautions
- 7.0.3.2 Identify owner or agency objectives of water area
- 7.0.3.3 Recognize physical, chemical, cultural, and biological vegetative control methods
- 7.0.3.4 Identify advantages and disadvantages of aquatic vegetation related to recreation
- 7.0.3.5 Apply water quality parameters
- 7.0.3.6 Determine surface area to be treated
- 7.0.3.7 Determine volume to be treated

\* Advancing

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\*\* Futuring

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## Resource Conservation--4/92

### Competency 7.0.4: Evaluate wildlife populations

#### *Competency Builders:*

- 7.0.4.1 Follow general safety precautions
- 7.0.4.2 Cruise a study area
- 7.0.4.3 Collect census data
- 7.0.4.4 Recognize recreational users
- 7.0.4.5 Define demographics
- 7.0.4.6 Assess habitat\*
- 7.0.4.7 Evaluate population trends\*
- 7.0.4.8 Measure mortality\*
- 7.0.4.9 Use satellite tracking\*\*

### Competency 7.0.5: Identify firearm safety materials and methods

#### *Competency Builders:*

- 7.0.5.1 Follow general safety precautions
- 7.0.5.2 Identify basic archery equipment
- 7.0.5.3 Identify types of rifle actions
- 7.0.5.4 Identify types of shotgun actions
- 7.0.5.5 Identify types of sporting firearms
- 7.0.5.6 Identify basic muzzleloading equipment
- 7.0.5.7 Identify common game animals
- 7.0.5.8 Identify common nongame animals
- 7.0.5.9 Identify reasons for game laws and seasons
- 7.0.5.10 Complete hunter education course
- 7.0.5.11 Maintain target range
- 7.0.5.12 Practice safe weapons handling
- 7.0.5.13 Identify differences between rifles and shotguns and specific ammunition types
- 7.0.5.14 Identify additional equipment necessary for hunting
- 7.0.5.15 Explain basic reloading components\*
- 7.0.5.16 Plan target range\*
- 7.0.5.17 Set up target range\*

### Competency 7.0.6: Trap mammals

#### *Competency Builders:*

- 7.0.6.1 Follow general safety precautions
- 7.0.6.2 Identify reasons for trapping
- 7.0.6.3 Identify reasons for game laws and seasons
- 7.0.6.4 Identify basic types of traps
- 7.0.6.5 Identify common animals that are trapped
- 7.0.6.6 Identify basic sets of each species trapped
- 7.0.6.7 Identify other equipment needed in trapping
- 7.0.6.8 Develop and maintain trapline
- 7.0.6.9 Complete trapper education course
- 7.0.6.10 Maintain records
- 7.0.6.11 Prepare skins for market
- 7.0.6.12 Develop animal welfare acceptable methods\*\*

\* Advancing

\*\* Futuring

**Competency 7.0.7: Apply animal-control techniques**

*Competency Builders:*

- 7.0.7.1 Follow general safety precautions
- 7.0.7.2 Identify animal's behavior
- 7.0.7.3 Approach animal
- 7.0.7.4 Apply various muzzles
- 7.0.7.5 Form temporary muzzles
- 7.0.7.6 Apply pneumatic collar
- 7.0.7.7 Open mouth
- 7.0.7.8 Restrain animal's head
- 7.0.7.9 Net birds
- 7.0.7.10 Use squeeze cage
- 7.0.7.11 Use snake hood and fork
- 7.0.7.12 Operate restraining mechanisms
- 7.0.7.13 Tape legs
- 7.0.7.14 Use rodent restrainer
- 7.0.7.15 Identify animal-control purposes
- 7.0.7.16 Use small-animal carrier
- 7.0.7.17 Use rabbit restrainer
- 7.0.7.18 Use metabolism cage
- 7.0.7.19 Use shoebox cage
- 7.0.7.20 Develop animal welfare acceptable methods\*\*

**Competency 7.0.8: Identify wildlife management techniques**

*Competency Builders:*

- 7.0.8.1 Follow general safety precautions
- 7.0.8.2 Identify basic reasons for wildlife management
- 7.0.8.3 Identify basic wildlife management practices for forest game, farm game, furbearers, waterfowl, and nongame species
- 7.0.8.4 Identify common animals associated with forest game, farm game, furbearers, waterfowl, and nongame species
- 7.0.8.5 Collect and prepare study skins in each category of species
- 7.0.8.6 Identify different types of capture techniques
- 7.0.8.7 Identify basic types of equipment used in wildlife management
- 7.0.8.8 Identify importance of habitat development as it relates to wildlife populations
- 7.0.8.9 Identify advantages and disadvantages of introduction of wildlife species to new habitats
- 7.0.8.10 Identify importance of healthy wildlife population to local economy
- 7.0.8.11 Identify different types of population control
- 7.0.8.12 Identify types of population density surveys
- 7.0.8.13 Identify importance of habitat evaluation and cover mapping
- 7.0.8.14 Identify carrying capacity
- 7.0.8.15 Prepare a wildlife management plan\*

\* Advancing  
\*\* Futuring

## Unit 8: Groundskeeping

### Competency 8.0.1: Prepare media mixes

#### *Competency Builders:*

- 8.0.1.1 Follow general safety precautions
- 8.0.1.2 Mix media materials
- 8.0.1.3 Mix in media amendments
- 8.0.1.4 Prepare compost\*\*

### Competency 8.0.2: Prepare landscape area

#### *Competency Builders:*

- 8.0.2.1 Follow general safety precautions
- 8.0.2.2 Spread topsoil or topsoil products
- 8.0.2.3 Grade planting area
- 8.0.2.4 Apply lime and/or gypsum
- 8.0.2.5 Shape beds
- 8.0.2.6 Mark off contour\*

### Competency 8.0.3: Establish landscape

#### *Competency Builders:*

- 8.0.3.1 Follow general safety precautions
- 8.0.3.2 Plant seeds
- 8.0.3.3 Plant bulbs
- 8.0.3.4 Plant shrubs
- 8.0.3.5 Plant ground covers
- 8.0.3.6 Apply mulch
- 8.0.3.7 Label plants
- 8.0.3.8 Plant trees
- 8.0.3.9 Lay sod
- 8.0.3.10 Plant stolons and plugs
- 8.0.3.11 Plant hedges and screens
- 8.0.3.12 Plant annual and perennial plants
- 8.0.3.13 Dig planting hole
- 8.0.3.14 Dig up trees and shrubs with a soil ball
- 8.0.3.15 Inoculate seeds\*

### Competency 8.0.4: Fertilize plants

#### *Competency Builders:*

- 8.0.4.1 Follow general safety precautions
- 8.0.4.2 Interpret fertilizer bag labels
- 8.0.4.3 Mix fertilizer solutions
- 8.0.4.4 Apply fertilizer
- 8.0.4.5 Determine nutrient requirements\*
- 8.0.4.6 Identify symptoms of nutrient deficiency\*
- 8.0.4.7 Determine kind of fertilizer and lime to apply\*
- 8.0.4.8 Compute fertilizer costs\*

(continued)

\* Advancing  
\*\* Futuring

(continued)

- 8.0.4.9 Interpret manufacturer's fertilization rate charts\*
- 8.0.4.10 Determine amount of fertilizer and lime to apply\*
- 8.0.4.11 Select application method\*
- 8.0.4.12 Calibrate fertilizer application equipment\*
- 8.0.4.13 Use fertilizer injectors\*

**Competency 8.0.5: Maintain landscape plants**

*Competency Builders:*

- 8.0.5.1 Follow general safety precautions
- 8.0.5.2 Pinch plants
- 8.0.5.3 Cultivate plants
- 8.0.5.4 Water plants
- 8.0.5.5 Apply mulches
- 8.0.5.6 Disbud flowering plants
- 8.0.5.7 Wrap trees, shrubs, and vines
- 8.0.5.8 Prune trees
- 8.0.5.9 Prune shrubs
- 8.0.5.10 Prune hedges
- 8.0.5.11 Stake trees
- 8.0.5.12 Transplant bulbs, corms, and tubers
- 8.0.5.13 Apply growth-regulating compounds
- 8.0.5.14 Thin seedlings
- 8.0.5.15 Remove old flowers
- 8.0.5.16 Maintain plants on arbors and trellises
- 8.0.5.17 Treat tree wounds\*

**Competency 8.0.6: Maintain trees, shrubs, and hedges**

*Competency Builders:*

- 8.0.6.1 Follow general safety precautions
- 8.0.6.2 Climb trees
- 8.0.6.3 Cord wood to sell
- 8.0.6.4 Cut trees
- 8.0.6.5 Determine basic plant form for pruning
- 8.0.6.6 Dispose of pruned materials
- 8.0.6.7 Identify branches to prune
- 8.0.6.8 Install cables and braces
- 8.0.6.9 Prune suckers and water sprouts
- 8.0.6.10 Repair storm damage
- 8.0.6.11 Remove dead material
- 8.0.6.12 Remove girdling roots
- 8.0.6.13 Remove stumps
- 8.0.6.14 Repair bark injuries
- 8.0.6.15 Identify cause of injury\*
- 8.0.6.16 Determine when to prune\*
- 8.0.6.17 Identify and select bracing materials\*

\* Advancing  
 \*\* Futuring



## **Resource Conservation--4/92**

### **Competency 8.0.7: Maintain turfgrasses**

#### *Competency Builders:*

- 8.0.7.1 Follow general safety precautions
- 8.0.7.2 Sprig and plug seeded areas
- 8.0.7.3 Overseed turf
- 8.0.7.4 Water turf
- 8.0.7.5 Dethatch turf
- 8.0.7.6 Fill in holes and depressions in turf
- 8.0.7.7 Mow grass
- 8.0.7.8 Edge walks and paths
- 8.0.7.9 Remove clippings and leaves
- 8.0.7.10 Compost clippings and leaves
- 8.0.7.11 Identify mowing heights
- 8.0.7.12 Develop mowing schedule\*
- 8.0.7.13 Develop controlled mowing plan\*

### **Competency 8.0.8: Utilize pest-control program**

#### *Competency Builders:*

- 8.0.8.1 Follow general safety precautions
- 8.0.8.2 Identify insects, diseases, and weeds
- 8.0.8.3 Identify public health hazards
- 8.0.8.4 Recognize pest damage
- 8.0.8.5 Complete certification requirements for prescribed chemical application
- 8.0.8.6 Interpret chemical labels and compatibility charts
- 8.0.8.7 Identify disease- and insect-resistant species\*
- 8.0.8.8 Estimate pest population numbers\*
- 8.0.8.9 Assess degree of damage\*
- 8.0.8.10 Calculate area to be covered\*
- 8.0.8.11 Determine when controls are needed\*
- 8.0.8.12 Evaluate chemical/cultural/biological control options (e.g., integrated pest management [IPM])\*
- 8.0.8.13 Select chemicals\*
- 8.0.8.14 Compute treatment cost\*
- 8.0.8.15 Map chemical application\*

### **Competency 8.0.9: Apply chemical pest-control treatments**

#### *Competency Builders:*

- 8.0.9.1 Follow general safety precautions
- 8.0.9.2 Mix chemicals and load application equipment
- 8.0.9.3 Use application equipment
- 8.0.9.4 Follow proper cleaning procedures
- 8.0.9.5 Recognize chemical injury
- 8.0.9.6 Set out bait
- 8.0.9.7 Identify application types
- 8.0.9.8 Calibrate application equipment\*
- 8.0.9.9 Maintain application record\*

\* Advancing  
\*\* Futuring

**Competency 8.0.10: Operate aquatic recreation**

*Competency Builders:*

- 8.0.10.1 Follow general safety precautions
- 8.0.10.2 Issue boating and safety equipment
- 8.0.10.3 Place boats in water
- 8.0.10.4 Remove boats from water
- 8.0.10.5 Remove debris from water and surrounding area
- 8.0.10.6 Remove weeds from water
- 8.0.10.7 Tie boats
- 8.0.10.8 Complete basic safe boating course
- 8.0.10.9 Mount outboard engine
- 8.0.10.10 Change boat propeller
- 8.0.10.11 Conduct safety inspection
- 8.0.10.12 Install and replace safety cables and markers\*

**Competency 8.0.11: Establish and maintain trails**

*Competency Builders:*

- 8.0.11.1 Follow general safety precautions
- 8.0.11.2 Lay out trails
- 8.0.11.3 Remove obstacles from trails
- 8.0.11.4 Apply wood chips
- 8.0.11.5 Construct waterbars
- 8.0.11.6 Construct steps
- 8.0.11.7 Construct bridges
- 8.0.11.8 Identify trail layout aspects
- 8.0.11.9 Identify trail types
- 8.0.11.10 Identify and mark plants\*
- 8.0.11.11 Identify and mark trees\*

**Competency 8.0.12: Maintain roadways and sidewalks**

*Competency Builders:*

- 8.0.12.1 Follow general safety precautions
- 8.0.12.2 Clean culverts
- 8.0.12.3 Clean and repair drainage system
- 8.0.12.4 Fill chuckholes
- 8.0.12.5 Repair bridges
- 8.0.12.6 Remove snow
- 8.0.12.7 Spread gravel
- 8.0.12.8 Grade roads
- 8.0.12.9 Maintain roadsides
- 8.0.12.10 Maintain signs
- 8.0.12.11 Identify public access requirements for special populations
- 8.0.12.12 Replace culverts\*



## Resource Conservation--4/92

### Competency 8.0.13: Supervise and maintain camping area

#### *Competency Builders:*

- 8.0.13.1 Follow general safety precautions
- 8.0.13.2 Enforce camping rules
- 8.0.13.3 Issue camping and recreation equipment
- 8.0.13.4 Register guests
- 8.0.13.5 Provide camping information to guests
- 8.0.13.6 Plan educational programs
- 8.0.13.7 Utilize computers\*\*

### Competency 8.0.14: Design landscape\*

#### *Competency Builders:*

- 8.0.14.1 Select and locate complements\*
- 8.0.14.2 Draw plan to scale\*
- 8.0.14.3 Draw landscape symbols\*
- 8.0.14.4 Design public area planting\*
- 8.0.14.5 Design flower garden\*
- 8.0.14.6 Match plant requirements to environmental conditions\*
- 8.0.14.7 Select plant and seed varieties\*
- 8.0.14.8 Select containers\*

### Competency 8.0.15: Prepare for landscaping\*

#### *Competency Builders:*

- 8.0.15.1 Follow general safety precautions\*
- 8.0.15.2 Calculate percent germination\*
- 8.0.15.3 Determine planting rates\*
- 8.0.15.4 Determine planting depth\*
- 8.0.15.5 Determine planting time\*
- 8.0.15.6 Interpret seed and bulb tag information\*
- 8.0.15.7 Plan planting schedules\*

## Unit 9: Equipment Maintenance

### Competency 9.0.1: Clean and store equipment

#### *Competency Builders:*

- 9.0.1.1 Follow general safety precautions
- 9.0.1.2 Remove equipment from storage
- 9.0.1.3 Remove debris from equipment
- 9.0.1.4 Use steam or high-pressure wash equipment
- 9.0.1.5 Prepare engines for storage
- 9.0.1.6 Lubricate equipment for storage
- 9.0.1.7 Drain fluids

\* Advancing  
\*\* Futuring

**Competency 9.0.2: Use and maintain equipment**

*Competency Builders:*

- 9.0.2.1 Follow general safety precautions
- 9.0.2.2 Read and follow operation instructions
- 9.0.2.3 Identify tools
- 9.0.2.4 Select tools
- 9.0.2.5 Set up and adjust tools
- 9.0.2.6 Clean and lubricate tools
- 9.0.2.7 Recondition tools
- 9.0.2.8 Sharpen tools
- 9.0.2.9 Store tools
- 9.0.2.10 Troubleshoot problems
- 9.0.2.11 Read measuring device

**Competency 9.0.3: Weld with gas**

*Competency Builders:*

- 9.0.3.1 Follow general safety precautions
- 9.0.3.2 Set up and adjust gas welding equipment
- 9.0.3.3 Select rod
- 9.0.3.4 Select and apply flux
- 9.0.3.5 Cut metal
- 9.0.3.6 Weld steel in horizontal positions
- 9.0.3.7 Weld steel with filler rod
- 9.0.3.8 Braze metal
- 9.0.3.9 Clean and store equipment
- 9.0.3.10 Secure and store gas cylinders

**Competency 9.0.4: Weld with electric arc and MIG**

*Competency Builders:*

- 9.0.4.1 Follow general safety precautions
- 9.0.4.2 Select welding equipment and accessories
- 9.0.4.3 Select electrode sizes and types
- 9.0.4.4 Select settings
- 9.0.4.5 Prepare metal
- 9.0.4.6 Weld steel in nonhorizontal positions
- 9.0.4.7 Weld pipe
- 9.0.4.8 Cut metal
- 9.0.4.9 Clean and store equipment
- 9.0.4.10 Weld steel in horizontal positions

## **Resource Conservation--4/92**

### **Competency 9.0.5: Fabricate with metal**

#### *Competency Builders:*

- 9.0.5.1 Follow general safety precautions
- 9.0.5.2 Identify types of metal
- 9.0.5.3 Design plans
- 9.0.5.4 Prepare bill of materials
- 9.0.5.5 Measure thickness of sheet metal
- 9.0.5.6 Test metal for type and hardness
- 9.0.5.7 Punch and drill metal
- 9.0.5.8 Cut metal
- 9.0.5.9 Select thread and size for tap or die
- 9.0.5.10 Thread hole or rod
- 9.0.5.11 Grind metal
- 9.0.5.12 Join metal
- 9.0.5.13 Bend sheet metal
- 9.0.5.14 Store metal

### **Competency 9.0.6: Service belt and drive chain assemblies**

#### *Competency Builders:*

- 9.0.6.1 Follow general safety precautions
- 9.0.6.2 Replace and adjust belts
- 9.0.6.3 Replace and adjust gear assembly
- 9.0.6.4 Replace and adjust chains
- 9.0.6.5 Replace pulleys and rollers
- 9.0.6.6 Clean and lubricate drive parts
- 9.0.6.7 Troubleshoot problems

### **Competency 9.0.7: Lubricate equipment**

#### *Competency Builders:*

- 9.0.7.1 Follow general safety precautions
- 9.0.7.2 Identify service points
- 9.0.7.3 Select lubricant
- 9.0.7.4 Maintain grease fittings
- 9.0.7.5 Apply lubricant

### **Competency 9.0.8: Service engine cooling systems**

#### *Competency Builders:*

- 9.0.8.1 Follow general safety precautions
- 9.0.8.2 Test coolant mixture
- 9.0.8.3 Add coolant
- 9.0.8.4 Replace hoses
- 9.0.8.5 Adjust or replace fan belt
- 9.0.8.6 Inspect for leaks
- 9.0.8.7 Flush cooling system
- 9.0.8.8 Dispose of coolant
- 9.0.8.9 Troubleshoot problems

**Competency 9.0.9: Service lubrication systems**

*Competency Builders:*

- 9.0.9.1 Follow general safety precautions
- 9.0.9.2 Select oil
- 9.0.9.3 Change oil and oil filters
- 9.0.9.4 Check oil level
- 9.0.9.5 Dispose of oil
- 9.0.9.6 Troubleshoot problems

**Competency 9.0.10: Service engine fuel and air systems**

*Competency Builders:*

- 9.0.10.1 Follow general safety precautions
- 9.0.10.2 Service air cleaner
- 9.0.10.3 Bleed diesel fuel system
- 9.0.10.4 Mix gas and oil for two-cycle engine
- 9.0.10.5 Service and clean crankcase ventilation components
- 9.0.10.6 Clean and adjust small-engine carburetor
- 9.0.10.7 Service fuel filter assembly
- 9.0.10.8 Replace exhaust system components
- 9.0.10.9 Adjust engine valves
- 9.0.10.10 Distinguish differences between two-cycle and four-cycle engines
- 9.0.10.11 Troubleshoot problems

**Competency 9.0.11: Service engine electrical systems**

*Competency Builders:*

- 9.0.11.1 Follow general safety precautions
- 9.0.11.2 Inspect and replace distributor cap and rotor
- 9.0.11.3 Inspect and replace spark plugs
- 9.0.11.4 Inspect, replace, and adjust spark plug wires
- 9.0.11.5 Inspect, change, and adjust breaker points
- 9.0.11.6 Check specific gravity of battery
- 9.0.11.7 Install battery
- 9.0.11.8 Clean and treat battery terminals, cables, and battery box
- 9.0.11.9 Charge battery
- 9.0.11.10 Replace fuses
- 9.0.11.11 Replace light bulbs
- 9.0.11.12 Jump-start vehicle
- 9.0.11.13 Troubleshoot problems

**Competency 9.0.12: Service wheels and tires**

*Competency Builders:*

- 9.0.12.1 Follow general safety precautions
- 9.0.12.2 Inspect tires
- 9.0.12.3 Check tire pressure
- 9.0.12.4 Inflate tires
- 9.0.12.5 Remove and replace wheels
- 9.0.12.6 Troubleshoot problems

## **Resource Conservation--4/92**

### **Competency 9.0.13: Service hydraulic systems**

#### *Competency Builders:*

- 9.0.13.1 Follow general safety precautions
- 9.0.13.2 Select oil
- 9.0.13.3 Check and add oil
- 9.0.13.4 Replace oil filter
- 9.0.13.5 Bleed air from system
- 9.0.13.6 Inspect system for oil leaks
- 9.0.13.7 Inspect and replace hoses
- 9.0.13.8 Troubleshoot problems

### **Competency 9.0.14: Maintain chain saw**

#### *Competency Builders:*

- 9.0.14.1 Follow general safety precautions
- 9.0.14.2 Remove and install guide, bar, and chain
- 9.0.14.3 Adjust chain tension
- 9.0.14.4 Sharpen chain
- 9.0.14.5 Service guide bar and chain
- 9.0.14.6 Replace chain
- 9.0.14.7 Service air filter
- 9.0.14.8 Service spark plug
- 9.0.14.9 Service exhaust system
- 9.0.14.10 Perform spark test
- 9.0.14.11 Inspect fuel system

## **Unit 10: Equipment Operation**

### **Competency 10.0.1: Perform prestart functions**

#### *Competency Builders:*

- 10.0.1.1 Follow general safety precautions
- 10.0.1.2 Select fuel
- 10.0.1.3 Check prestart mechanism
- 10.0.1.4 Inspect lights
- 10.0.1.5 Flag extended materials
- 10.0.1.6 Refuel power units
- 10.0.1.7 Turn on boat air blower
- 10.0.1.8 Troubleshoot problems

**Competency 10.0.2: Hitch equipment to power unit**

*Competency Builders:*

- 10.0.2.1 Follow general safety precautions
- 10.0.2.2 Connect front-end-operated equipment
- 10.0.2.3 Connect 3-point-hitch equipment
- 10.0.2.4 Attach and detach power takeoff equipment
- 10.0.2.5 Hitch towed equipment
- 10.0.2.6 Connect hydraulic lines
- 10.0.2.7 Connect electrical hookups
- 10.0.2.8 Connect safety chains

**Competency 10.0.3: Operate vehicles and boats**

*Competency Builders:*

- 10.0.3.1 Follow general safety precautions
- 10.0.3.2 Adjust throttle for operating conditions
- 10.0.3.3 Interpret equipment gauges
- 10.0.3.4 Start and shut down engine
- 10.0.3.5 Use hand operating signals
- 10.0.3.6 Operate manual transmission
- 10.0.3.7 Operate automatic transmission
- 10.0.3.8 Use braking systems
- 10.0.3.9 Adjust seating and steering
- 10.0.3.10 Operate liftgate
- 10.0.3.11 Operate dump bed
- 10.0.3.12 Operate winch
- 10.0.3.13 Operate hydraulics
- 10.0.3.14 Operate power takeoff
- 10.0.3.15 Operate outboard motor

**Competency 10.0.4: Operate chain saw**

*Competency Builders:*

- 10.0.4.1 Follow general safety precautions
- 10.0.4.2 Identify chain saw parts
- 10.0.4.3 Identify parts of saw chain
- 10.0.4.4 Conduct preoperating maintenance inspection
- 10.0.4.5 Start saw
- 10.0.4.6 Make overbuck cut
- 10.0.4.7 Make underbuck cut
- 10.0.4.8 Determine tree's line of fall
- 10.0.4.9 Identify use of wedges in felling operation
- 10.0.4.10 Determine escape route
- 10.0.4.11 Make notch cut
- 10.0.4.12 Make back cut

## Unit 11: Facility Construction and Maintenance

### Competency 11.0.1: Construct with wood

#### *Competency Builders:*

- 11.0.1.1 Follow general safety precautions
- 11.0.1.2 Cut lumber to dimension
- 11.0.1.3 Assemble joints with glue
- 11.0.1.4 Cut and fit joints
- 11.0.1.5 Select and use metal fasteners
- 11.0.1.6 Cut and set ties and poles
- 11.0.1.7 Identify types of woods
- 11.0.1.8 Install and repair bracing
- 11.0.1.9 Read plan
- 11.0.1.10 Troubleshoot problems
- 11.0.1.11 Install and repair doors\*

### Competency 11.0.2: Maintain electrical systems

#### *Competency Builders:*

- 11.0.2.1 Follow general safety precautions
- 11.0.2.2 Read electric meter
- 11.0.2.3 Replace fuses
- 11.0.2.4 Reset circuit breakers
- 11.0.2.5 Repair extension cords
- 11.0.2.6 Replace outlets and switches
- 11.0.2.7 Maintain lighting fixtures
- 11.0.2.8 Identify electrical fundamentals
- 11.0.2.9 Clean and lubricate motors\*

### Competency 11.0.3: Install and maintain water system

#### *Competency Builders:*

- 11.0.3.1 Follow general safety precautions
- 11.0.3.2 Cut and fit pipe or tubing
- 11.0.3.3 Identify pipe and tubing types
- 11.0.3.4 Install pipe and pipe fittings
- 11.0.3.5 Install and repair valves and faucets
- 11.0.3.6 Set up portable pumps
- 11.0.3.7 Install insulation
- 11.0.3.8 Install filters
- 11.0.3.9 Unclog pipes
- 11.0.3.10 Locate existing underground waterlines
- 11.0.3.11 Open and backfill trench line
- 11.0.3.12 Replace gaskets
- 11.0.3.13 Troubleshoot problems
- 11.0.3.14 Install flow-control devices\*
- 11.0.3.15 Tap into existing waterlines\*
- 11.0.3.16 Test and adjust sprinkler spray patterns\*

\* Advancing

\*\* Futuring

**Competency 11.0.4: Operate sprinkler system**

*Competency Builders:*

- 11.0.4.1 Follow general safety precautions
- 11.0.4.2 Program automatic timers
- 11.0.4.3 Adjust sprinkler patterns
- 11.0.4.4 Adjust water pressure
- 11.0.4.5 Troubleshoot problems
- 11.0.4.6 Determine sprinkler precipitation rate\*
- 11.0.4.7 Computerize watering\*\*

**Competency 11.0.5: Install and maintain fencing**

*Competency Builders:*

- 11.0.5.1 Follow general safety precautions
- 11.0.5.2 Identify fencing system options
- 11.0.5.3 Determine amount of fence required
- 11.0.5.4 Identify fencing materials
- 11.0.5.5 Identify posts and braces
- 11.0.5.6 Identify fasteners
- 11.0.5.7 Lay out and stretch fence
- 11.0.5.8 Install posts and braces
- 11.0.5.9 Install gates
- 11.0.5.10 Install fasteners
- 11.0.5.11 Remove fencing
- 11.0.5.12 Troubleshoot problems
- 11.0.5.13 Use invisible fencing\*\*

**Competency 11.0.6: Apply protective coatings**

*Competency Builders:*

- 11.0.6.1 Follow general safety precautions
- 11.0.6.2 Determine type of coating and application
- 11.0.6.3 Clean and sand surface
- 11.0.6.4 Apply masking tape
- 11.0.6.5 Thin paint
- 11.0.6.6 Mix and apply primer coat
- 11.0.6.7 Apply finish coat
- 11.0.6.8 Apply wood preservative
- 11.0.6.9 Clean up equipment
- 11.0.6.10 Identify types and uses of coatings

\* Advancing  
\*\* Futuring



**Competency 11.0.7: Construct with concrete\***

*Competency Builders:*

- 11.0.7.1 Follow general safety precautions\*
- 11.0.7.2 Use survey level\*
- 11.0.7.3 Select concrete materials and additives\*
- 11.0.7.4 Select and use concrete tools\*
- 11.0.7.5 Calculate volume of concrete to order or mix\*
- 11.0.7.6 Excavate structure sites for concrete pouring\*
- 11.0.7.7 Install concrete reinforcement\*
- 11.0.7.8 Build and remove concrete forms\*
- 11.0.7.9 Mix and pour concrete\*
- 11.0.7.10 Finish concrete surface\*
- 11.0.7.11 Cure concrete\*
- 11.0.7.12 Lay block\*
- 11.0.7.13 Lay brick\*
- 11.0.7.14 Install edging\*
- 11.0.7.15 Use precast concrete\*\*

**Competency 11.0.8: Construct with stone\***

*Competency Builders:*

- 11.0.8.1 Follow general safety precautions\*
- 11.0.8.2 Lay stone\*
- 11.0.8.3 Lay gravel\*
- 11.0.8.4 Install walkways\*
- 11.0.8.5 Construct a wall\*
- 11.0.8.6 Set landscape stones\*

## **Unit 12: Business Management**

**Competency 12.0.1: Perform general office duties**

*Competency Builders:*

- 12.0.1.1 Duplicate materials
- 12.0.1.2 File materials
- 12.0.1.3 Open and close business facility
- 12.0.1.4 Use telephone
- 12.0.1.5 Operate calculator
- 12.0.1.6 Use two-way radio
- 12.0.1.7 Maintain service records
- 12.0.1.8 Process mail\*
- 12.0.1.9 Prepare correspondence\*
- 12.0.1.10 Prepare reports\*
- 12.0.1.11 Secure business documents\*
- 12.0.1.12 Schedule appointments and meetings\*
- 12.0.1.13 Plan work schedules\*
- 12.0.1.14 Operate computer\*
- 12.0.1.15 Use fax machine\*
- 12.0.1.16 Use fiber-optic lines\*\*

\* Advancing  
\*\* Futuring

**Competency 12.0.2: Control inventory**

*Competency Builders:*

- 12.0.2.1 Follow safety precautions
- 12.0.2.2 Organize storage area
- 12.0.2.3 Organize sales area
- 12.0.2.4 Conduct physical inventory
- 12.0.2.5 Determine quantity of bulk items
- 12.0.2.6 Maintain inventory records
- 12.0.2.7 Use computerized records\*\*

**Competency 12.0.3: Receive merchandise**

*Competency Builders:*

- 12.0.3.1 Follow general safety precautions
- 12.0.3.2 Verify order
- 12.0.3.3 Unpack merchandise
- 12.0.3.4 Interpret packing slips and invoices
- 12.0.3.5 Check merchandise for shipping discrepancies
- 12.0.3.6 Inspect merchandise for damage
- 12.0.3.7 Distribute merchandise to designated location
- 12.0.3.8 Use computerized records\*\*

**Competency 12.0.4: Ship merchandise**

*Competency Builders:*

- 12.0.4.1 Follow general safety precautions
- 12.0.4.2 Determine delivery route
- 12.0.4.3 Record shipments
- 12.0.4.4 Load merchandise
- 12.0.4.5 Secure load
- 12.0.4.6 Follow government regulations
- 12.0.4.7 Prepare shipping documents\*
- 12.0.4.8 Arrange delivery\*
- 12.0.4.9 Process special orders\*
- 12.0.4.10 Process returns to vendor\*

## **Unit 13: Employability Skills**

### **Subunit 13.1: Career Development**

#### **Competency 13.1.1: Investigate career options**

*Competency Builders:*

- 13.1.1.1 Determine interests and aptitudes
- 13.1.1.2 Identify career options
- 13.1.1.3 Research occupations matching interests and aptitudes
- 13.1.1.4 Select career(s) that best match(es) interests and aptitudes
- 13.1.1.5 Identify advantages and disadvantages of career options, including nontraditional careers
- 13.1.1.6 Assess differences in wages, annual incomes, and job opportunities based on geographic location
- 13.1.1.7 Develop a career plan

#### **Competency 13.1.2: Analyze potential barriers to employment**

*Competency Builders:*

- 13.1.2.1 Identify common barriers to employment
- 13.1.2.2 Describe strategies to overcome employment barriers

## **Unit 13: Employability Skills**

### **Subunit 13.2: Decision Making and Problem Solving**

#### **Competency 13.2.1: Apply decision-making techniques in the workplace**

*Competency Builders:*

- 13.2.1.1 Identify the decision to be made
- 13.2.1.2 Compare alternatives
- 13.2.1.3 Determine consequences of each alternative
- 13.2.1.4 Make decisions based on values and goals
- 13.2.1.5 Evaluate the decision made

#### **Competency 13.2.2: Apply problem-solving techniques in the workplace**

*Competency Builders:*

- 13.2.2.1 Diagnose the problem and its causes
- 13.2.2.2 Identify alternatives and their consequences in relation to the problem
- 13.2.2.3 Examine multicultural and nonsexist dimensions of problem solving
- 13.2.2.4 Utilize resources to explore possible solutions to the problem
- 13.2.2.5 Compare and contrast the advantages and disadvantages of each solution
- 13.2.2.6 Determine appropriate action
- 13.2.2.7 Evaluate results

## **Unit 13: Employability Skills**

### **Subunit 13.3: Work Ethic**

#### **Competency 13.3.1: Evaluate the relationship of self-esteem to work ethic**

##### *Competency Builders:*

- 13.3.1.1 Identify special characteristics and abilities in self and others
- 13.3.1.2 Identify internal and external factors that affect self-esteem

#### **Competency 13.3.2: Analyze the relationship of personal values and goals to work ethic both in and out of the workplace**

##### *Competency Builders:*

- 13.3.2.1 Distinguish between values and goals
- 13.3.2.2 Determine the importance of values and goals
- 13.3.2.3 Evaluate how values affect goals
- 13.3.2.4 Identify short-term and long-term goals
- 13.3.2.5 Prioritize personal goals
- 13.3.2.6 Describe how personal values are reflected in work ethic
- 13.3.2.7 Describe how interactions in the workplace affect personal work ethic
- 13.3.2.8 Examine how life changes affect personal work ethic

#### **Competency 13.3.3: Demonstrate work ethic**

##### *Competency Builders:*

- 13.3.3.1 Examine factors that influence work ethic
- 13.3.3.2 Exhibit characteristics that reflect an appropriate work ethic

## **Unit 13: Employability Skills**

### **Subunit 13.4: Job-Seeking Skills**

#### **Competency 13.4.1: Prepare for employment**

##### *Competency Builders:*

- 13.4.1.1 Identify traditional and nontraditional employment sources
- 13.4.1.2 Utilize employment sources
- 13.4.1.3 Research job opportunities, including nontraditional careers
- 13.4.1.4 Interpret equal employment opportunity laws
- 13.4.1.5 Explain the critical importance of personal appearance, hygiene, and demeanor throughout the employment process
- 13.4.1.6 Prepare for generic employment tests and those specific to an occupation/organization

**Competency 13.4.2: Design a résumé**

*Competency Builders:*

- 13.4.2.1 Identify personal strengths and weaknesses
- 13.4.2.2 List skills and/or abilities, career objective(s), accomplishments/achievements, educational background, and work experience
- 13.4.2.3 Demonstrate legible written communication skills using correct grammar, spelling, and concise wording
- 13.4.2.4 Complete résumé using various formats
- 13.4.2.5 Secure references

**Competency 13.4.3: Complete and process job application forms**

*Competency Builders:*

- 13.4.3.1 Explain the importance of an application form
- 13.4.3.2 Identify ways to obtain job application forms
- 13.4.3.3 Describe methods for handling illegal questions on job application forms
- 13.4.3.4 Demonstrate legible written communication skills using correct grammar, spelling, and concise wording
- 13.4.3.5 Return application to proper person, request interview, and follow up

**Competency 13.4.4: Demonstrate interviewing skills**

*Competency Builders:*

- 13.4.4.1 Investigate interview environment and procedures
- 13.4.4.2 Explain the critical importance of personal appearance, hygiene, and demeanor
- 13.4.4.3 Demonstrate question and answer techniques
- 13.4.4.4 Demonstrate methods for handling difficult and/or illegal interview questions

**Competency 13.4.5: Secure employment**

*Competency Builders:*

- 13.4.5.1 Identify present and future employment opportunities within an occupation/organization
- 13.4.5.2 Research the organization/company
- 13.4.5.3 Use follow-up techniques to enhance employment potential
- 13.4.5.4 Compare and evaluate job offers

**Unit 13: Employability Skills**

**Subunit 13.5: Job Retention Skills**

**Competency 13.5.1: Analyze the organizational structure of the workplace**

*Competency Builders:*

- 13.5.1.1 Identify and evaluate employer expectations regarding job performance, work habits, attitudes, personal appearance, and hygiene
- 13.5.1.2 Be aware of and obey all company policies and procedures
- 13.5.1.3 Examine the role/relationship between employee and employer
- 13.5.1.4 Recognize opportunities for advancement and reasons for termination

**Competency 13.5.2: Maintain positive relations with others**

*Competency Builders:*

- 13.5.2.1 Exhibit appropriate work habits and attitude
- 13.5.2.2 Identify behaviors to establish successful working relationships
- 13.5.2.3 Cooperate and compromise through teamwork and group participation
- 13.5.2.4 Identify alternatives for dealing with harassment, bias, and discrimination based on race, color, national origin, sex, religion, handicap, or age

## **Unit 13: Employability Skills**

### **Subunit 13.6: Job Advancement**

**Competency 13.6.1: Analyze opportunities for personal and career growth**

*Competency Builders:*

- 13.6.1.1 Determine opportunities within an occupation/organization
- 13.6.1.2 Compare and contrast other opportunities
- 13.6.1.3 List benefits of job advancement
- 13.6.1.4 Evaluate factors involved when assuming a new position within or outside an occupation/organization

**Competency 13.6.2: Exhibit characteristics needed for advancement**

*Competency Builders:*

- 13.6.2.1 Display a positive attitude
- 13.6.2.2 Demonstrate knowledge of a position
- 13.6.2.3 Perform quality work
- 13.6.2.4 Adapt to changing situations and technology
- 13.6.2.5 Demonstrate capability for different positions
- 13.6.2.6 Participate in continuing education/training programs
- 13.6.2.7 Respect, accept, and work with ALL individuals in the workplace

## **Unit 13: Employability Skills**

### **Subunit 13.7: Technology in the Workplace**

**Competency 13.7.1: Assess the impact of technology in the workplace**

*Competency Builders:*

- 13.7.1.1 Cite how past business/industry practices have influenced present business/industry processes
- 13.7.1.2 Investigate the use of technology in the workplace
- 13.7.1.3 Analyze how present skills can be applied to learning new technologies

**Competency 13.7.2: Use a variety of technological applications**

*Competency Builders:*

- 13.7.2.1 Explore basic mathematical, scientific, computer, and technological principles
- 13.7.2.2 Use technology to accomplish assigned tasks
- 13.7.2.3 Create solutions to problems using technical means

## **Unit 13: Employability Skills**

### **Subunit 13.8: Lifelong Learning**

#### **Competency 13.8.1: Apply lifelong learning to individual situations**

*Competency Builders:*

13.8.1.1 Define lifelong learning

13.8.1.2 Identify factors that cause the need for lifelong learning

#### **Competency 13.8.2: Adapt to change**

*Competency Builders:*

13.8.2.1 Analyze the effects of change

13.8.2.2 Identify reasons why goals change

13.8.2.3 Describe the importance of flexibility when reevaluating goals

13.8.2.4 Evaluate the need for continuing education/training

## **Unit 13: Employability Skills**

### **Subunit 13.9: Economic Education**

#### **Competency 13.9.1: Analyze global enterprise system**

*Competency Builders:*

13.9.1.1 Identify characteristics of various enterprise systems

13.9.1.2 Examine the relationship between competition, risk, and profit

13.9.1.3 Illustrate how supply and demand influence price

#### **Competency 13.9.2: Evaluate personal money management**

*Competency Builders:*

13.9.2.1 Describe the need for personal management records

13.9.2.2 Identify methods of taxation

13.9.2.3 Analyze how credit affects financial security

13.9.2.4 Compare types and methods of investments

13.9.2.5 Prepare a personal budget

13.9.2.6 Be an informed and responsible consumer

13.9.2.7 Analyze the effects of advertising on the consumer

## **Unit 13: Employability Skills**

### **Subunit 13.10: Balancing Work and Family**

#### **Competency 13.10.1: Analyze the effects of family on work**

##### *Competency Builders:*

- 13.10.1.1 Recognize how family values, goals, and priorities are reflected in the workplace
- 13.10.1.2 Identify present and future family structures and responsibilities
- 13.10.1.3 Describe personal and family roles
- 13.10.1.4 Analyze concerns of working parent(s)
- 13.10.1.5 Examine how family responsibilities can conflict with work
- 13.10.1.6 Resolve family-related conflicts
- 13.10.1.7 Explain how to use support systems/community resources to help resolve family-related conflicts

#### **Competency 13.10.2: Analyze the effects of work on family**

##### *Competency Builders:*

- 13.10.2.1 Identify responsibilities associated with paid and nonpaid work
- 13.10.2.2 Compare the advantages and disadvantages of multiple incomes
- 13.10.2.3 Explain how work can conflict with family responsibilities
- 13.10.2.4 Explain how work-related stress can affect families
- 13.10.2.5 Identify family support systems and resources

## **Unit 13: Employability Skills**

### **Subunit 13.11: Citizenship in the Workplace**

#### **Competency 13.11.1: Exercise the rights and responsibilities of citizenship in the workplace**

##### *Competency Builders:*

- 13.11.1.1 Identify the basic rights and responsibilities of citizenship
- 13.11.1.2 Examine the history and contributions of all racial, ethnic, and cultural groups

#### **Competency 13.11.2: Cooperate with others in the workplace**

##### *Competency Builders:*

- 13.11.2.1 Identify situations in which compromise is necessary
- 13.11.2.2 Examine how individuals from various backgrounds contribute to work-related situations
- 13.11.2.3 Demonstrate initiative to facilitate cooperation
- 13.11.2.4 Give and receive constructive criticism to enhance cooperation



## **Unit 13: Employability Skills**

### **Subunit 13.12: Leadership**

#### **Competency 13.12.1: Evaluate leadership styles appropriate for the workplace**

*Competency Builders:*

- 13.12.1.1 Identify characteristics of effective leaders
- 13.12.1.2 Compare leadership styles
- 13.12.1.3 Demonstrate effective delegation skills
- 13.12.1.4 Identify opportunities to lead in the workplace

#### **Competency 13.12.2: Demonstrate effective teamwork skills**

*Competency Builders:*

- 13.12.2.1 Identify the responsibilities of a valuable group member
- 13.12.2.2 Exhibit open-mindedness
- 13.12.2.3 Identify methods of involving each member of a team
- 13.12.2.4 Contribute to the efficiency and success of a group
- 13.12.2.5 Determine ways to motivate others

#### **Competency 13.12.3: Utilize effective communication skills**

*Competency Builders:*

- 13.12.3.1 Identify the importance of listening
- 13.12.3.2 Demonstrate assertive communication
- 13.12.3.3 Recognize the importance of verbal and nonverbal cues and messages
- 13.12.3.4 Analyze written material
- 13.12.3.5 Prepare written material
- 13.12.3.6 Give and receive feedback
- 13.12.3.7 Articulate thoughts
- 13.12.3.8 Use appropriate language

## **Unit 13: Employability Skills**

### **Subunit 13.13: Entrepreneurship**

#### **Competency 13.13.1: Evaluate the role of small business in the economy**

*Competency Builders:*

- 13.13.1.1 Identify the benefits of small business to a community
- 13.13.1.2 Analyze opportunities for small business in a community

#### **Competency 13.13.2: Examine considerations of starting a business**

*Competency Builders:*

- 13.13.2.1 Research a business idea
- 13.13.2.2 Compare various ways to become a small business owner
- 13.13.2.3 Investigate factors to consider in financing a new business
- 13.13.2.4 Evaluate entrepreneurship as a career option

Distributed by

**Vocational Instructional Materials Laboratory**

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