



**FORESTRY
FORESTRY AIDE
SKILLS STANDARDS
OD46905**

Competency-Based Education: OKLAHOMA'S RECIPE FOR SUCCESS

BY THE INDUSTRY FOR THE INDUSTRY

Oklahoma's *CareerTech* system of competency-based education uses industry professionals and certification standards to identify the knowledge and abilities needed to master an occupation. This industry input provides the foundation for development of instructional materials that help prepare the comprehensively trained, highly skilled employees demanded by our workplace partners.

TOOLS FOR SUCCESS

CareerTech relies on three basic instructional components to deliver competency-based instruction: skills standards, curriculum materials, and competency assessments.

Skills standards provide the foundation for competency-based instruction in Oklahoma's *CareerTech* system. The skills standards outline the knowledge, skills, and abilities needed to perform related jobs within an industry. Skills standards are aligned with national skills standards; therefore, a student trained to the skills standards possesses technical skills that make him/her employable in both state and national job markets.

Curriculum materials contain information and activities that teach students the knowledge and skills outlined in the skills standards. In addition to complementing classroom instruction, curriculum resources provide supplemental activities to enhance learning and provide hands-on training experiences.

Competency Assessments test the student over material outlined in the skills standards and taught using the curriculum materials. When used with classroom performance evaluations, written competency assessments provide a means of measuring occupational readiness.

Although each of these components satisfy a unique purpose in competency-based education, they work together to reinforce the skills and abilities students need to gain employment and succeed on the job.

MEASURING SUCCESS

Written competency assessments are used to evaluate student performance. Results reports communicate competency assessment scores to students and provide a breakdown of assessment results by duty area. The results breakdown shows how well the student has mastered skills needed to perform major job functions and identifies areas of job responsibility that may require additional instruction and/or training.

Group analysis of student results also provides feedback to instructors seeking to improve the effectiveness of career and technology training. Performance patterns in individual duties indicate opportunities to evaluate training methods and customize instruction.

TRUE TO OUR PURPOSE

"Helping Oklahomans succeed in the workplace" defines the mission of Oklahoma *CareerTech* and its competency-based system of instruction. Skills standards, curriculum, and assessments that identify and reinforce industry expectations provide accountability for programs and assure *CareerTech*'s continued role in preparing skilled workers for a global job market

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SKILLS STANDARDS
Frequency and Criticality Ratings**

- Duty A: Explore the World of Forestry
- Duty B: Investigate Career Opportunities in Forestry
- Duty C: Identify Forests and Forest Products
- Duty D: Determine Patterns of Tree Growth and Classification
- Duty E: Identify Forest Trees
- Duty F: Practice Forest Safety
- Duty G: Identify and Use the Basic Tools of Forestry
- Duty H: Practice Tree Measurement
- Duty I: Use Basic Surveying Techniques
- Duty J: Use Legal Land Description
- Duty K: Cruise Timber Stands
- Duty L: Apply Forest Management Practices
- Duty M: Identify Forest Fire Protection Practices
- Duty N: Identify Types of Forest Damage
- Duty O: Apply Forest Utilization Practices

Frequency: represents how often the task is performed on the job. Frequency rating scales vary for different occupations. The rating scale used in this publication is presented below:

- 1 = less than once a week
- 2 = at least once a week
- 3 = once or more a day

Criticality: denotes the level of consequence associated with performing a task incorrectly. The rating scale used in this publication is presented below:

- 1 = slight
- 2 = moderate
- 3 = extreme

DUTY A: Explore the World of Forestry

CODE	TASK	F/C
A.01	Observe forest conditions	2/2
A.02	State importance of forest conservation	2/3

DUTY B: Investigate Career Opportunities in Forestry

CODE	TASK	F/C
B.01	Identify state and local employment opportunities	1/1
B.02	Write a thank you letter	1/1
B.03	Give a presentation about a career in forestry	1/1

DUTY C: Identify Forests and Forest Products

CODE	TASK	F/C
C.01	Identify wood products	2/2
C.02	Identify trees by region	2/2

DUTY D: Determine Patterns of Tree Growth with Classification

CODE	TASK	F/C
D.01	Count annual rings to obtain information about trees	3/2
D.02	Identify trees using size classifications	3/3

DUTY E: Identify Forest Trees

CODE	TASK	F/C
E.01	Identify trees using a key	3/2
E.02	Identify tree characteristics	3/3

DUTY F: Practice Forest Safety

CODE	TASK	F/C
F.01	Identify poisonous snakes	1/3
F.02	Recognize symptoms of heat stroke, heat cramps, and heat exhaustion	1/2
F.03	Recognize forest dangers	2/3
F.04	Identify precautions and procedures concerning getting lost including finding direction	2/3
F.05	Recognize symptoms and treatment of hypothermia	1/3
F.06	Identify poisonous plants	2/3
F.07	Explain environmental hazards	2/2

DUTY G: Identify and Use the Basic Tools of Forestry

CODE	TASK	F/C
G.01	Identify power equipment used in forestry	1/1
G.02	Design and maintain a tool kit	2/3
G.03	Use and sharpen a double-bitted ax with a file	2/2
G.04	Use identification tools	2/2

DUTY H: Practice Tree Measurement

CODE	TASK	F/C
H.01	Determine merchantable height of trees	2/2
H.02	Calculate estimated volume, weight, and value of timber	2/2
H.03	Measure diameter using a diameter tape	2/2
H.04	Demonstrate the ability to measure height using a Biltmore stick	2/2
H.05	Take tree measurements	3/2

DUTY I: Use Basic Surveying Techniques

CODE	TASK	F/C
I.01	Use an isogonic chart to correct magnetic readings to true readings	2/2
I.02	Adjust the compass to true readings	2/2
I.03	Determine the length of your pace and pace unknown distances	2/2
I.04	Chain a horizontal distance as the head chain person	2/2
I.05	Chain a horizontal distance as the rear chain person	2/2
I.06	Layout a right-angle offset	2/2
I.07	Chain a slope	2/2
I.08	Identify units of measure	2/2

DUTY J: Use Legal Land Descriptions

CODE	TASK	F/C
J.01	Interpret descriptions for the subdivision of a section	2/2
J.02	Determine distance and direction on a topographic map	2/3
J.03	Identify symbols and features on a United States Geological Survey (USGS) map	2/2
J.04	Identify methods for drawing the map	1/1

DUTY K: Cruise Timber Stands

CODE	TASK	F/C
K.01	State advantages and disadvantages of strip cruising	2/2
K.02	Plan a sampling layout	1/2

DUTY L: Apply Forest Management Practices

CODE	TASK	F/C
L.01	Plant bareroot seedlings	1/1
L.02	State advantages and disadvantages of natural and artificial methods of reforestation	1/2

DUTY M: Identify Forest Fire Protection Practices

CODE	TASK	F/C
M.01	Analyze information on forest fires	2/2
M.02	Implement forest fire control	2/3
M.03	Identify fire classes	3/3
M.04	Distinguish between good and bad effects of fire	1/1
M.05	Perform methods of fire attack	1/3

DUTY N: Identify Types of Forest Damage

CODE	TASK	F/C
N.01	Control Insect damage	2/3
N.02	Report on damage from natural and manmade causes	1/1

DUTY O: Apply Forest Utilization Practices

CODE	TASK	F/C
O.01	Distinguish between the responsibilities of the landowner and the forester in forest utilization	1/1