

# Appendix C: CARPENTRY

**Career Cluster Area: Construction**

**Prerequisites: NCCER Core Curriculum**

**Pathway: Industrial & Engineering Technology**

**Tech Prep Agreement(s):**

**Source of Occupational Skills Standards: National Center For Construction Education & Research (NCCER), Skills USA**

**Eligibility for Nationally Recognized Skill Certificate(s)/State License:**

**Description:**

Carpentry Education is designed to meet the needs of the construction industry by providing individuals with necessary technical skills to design, develop, construct, and maintain physical structures. Students utilize these skills to prepare for careers in the construction field.

**Program Contents:**

- Safety
- Math
- Employability Skills
- Communication Skills
- Materials
- Tools & Equipment
- Processes
- Codes & Regulations
- Career Opportunities

<b>Performance Standards (Learner Outcomes)</b>	<b>Alaska Reading, Writing, Math, Science Performance Standards</b>	<b>Alaska Content Standards</b>	<b>Alaska Cultural Standards</b>	<b>Alaska Employability Standards</b>	<b>Occupational Skill Standards</b>	<b>All Aspects of Industry</b>	<b>Assessment</b>
1. Identify and practice carpentry <b>safety</b> standards	R4.6, R4.9 SB.6	SB6 HL1, 2,3 TE2	C3	A6 A7	NCCER – Core Basic Safety (00101) Skills USA – Technical Standards Book p. 41 (Occupational Health & Safety)	Health/Safety Work Habits	NCCER – Core Basic Safety (00101) Skills USA – Technical Standards Book p. 41 (Occupational Health & Safety)
2. Apply a variety of <b>math</b> strategies and skills to solve carpentry problems	MA1.4.1, ME1.4.2 MA2.4.1 – MA2.4.4 MA3.4.1 – MA3.4.6 MA5.4.1 – MA5.4.3	MA1-6 MB1- 8, MC1-2 MD1-5 ME1- 3, GOVG6		A2 A4	NCCER –Core Intro to Const. Math (00102)	Technical Skills Planning Management Finance	NCCER –Core Intro to Const. Math (00102) HSGQE – Math Section

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	MB1.4.1 – MB1.4.3 MC1.4.1 – MC1.4.3 MD1.4.1, R4.6, SB.1						
3. Develop and model <b>employability skills</b>	ME1.4.1, ME1.4.2 W4.1, 4.2, 4.3, 4.4, 4.5,4.6 SC5, R4.4, 6			A 1-7 & B 1-5	Skills USA – Technical Standards Book p. 37 (Job Interview)	Work Habits Labor Technical Skills	Skills USA – Technical Standards Book p. 37 (Job Interview)
4. Demonstrate and develop effective <b>communication skills</b>	MC1.4.1 – MC1.4.3 W4.1, 4.2, 4.3 4.5 4.6 R4.1, 4.2, 4.3, 4.4, 4.5, 4.6 R4.9, 4.10, 4.11	LAA1-8, LAB1-3 LAC1-5, LAD1- 4HLC1-6, AB6 TB1-3, TA1-5, TD1-3, TE1-8	A3 E6 E7 LAE4	A2	Skills USA – Technical Standards Book p. 35 & 59 (Speech)	Technical Skills Work Habits Community Planning	HSGQE Reading Test Writing Test Skills USA – Technical Standards Book p. 35 & 59 (Speech)
5. Recognize and demonstrate technical knowledge of building <b>materials</b> (i.e. wood building materials, fasteners, and adhesives)	MA1.4.1 – MA1.4.7 MA2.4.1 – MA2.4.4 MA3.4.1, MA4.4.2 R4.4, R4.5, R4.11 SA.2, S A.4, SC.6, S.A.1, 2	SA15, GOVG3, TE1		A6	NCCER – Wood Building Materials (27102)	Technical Skills Health & Safety	NCCER – Wood Building Materials (27102)
6. Demonstrate proper use and maintenance of carpenters <b>tools and equipment</b>	MA2.4.1 – MA2.4.4 R.4.4, R4.6 SB.2,6	TA1-5		A6	NCCER – Core Intro to Hand Tools (00103) Core Intro to Power Tools (00104) module 27103	Technical Skills Health & Safety Labor Technology	NCCER – Core Intro to Hand Tools (00103) Core Intro to Power Tools (00104) module 27103

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					Skills USA – Technical Standards Book p. 149 Carpentry		Skills USA – Technical Standards Book p. 149 Carpentry
7. Demonstrate industry standard practices for various carpentry <b>processes</b> (i.e. floor systems, wall and ceiling framing, roof framing, and windows/doors)	MA1.4.1 – MA1.4.7 MA2.4.1 – MA2.4.4 MA3.4.1, MA4.4.2 MA5.4.6, MA5.4.7 R4.4, R4.5 a, R4.5 b R4.6, R4.9, R4.11 SA.4 SB.2, 3, SC.6	SA2, 4,5, SA7 SA15, SB2, GA1, GC1-3, GE1-6, GF2, TC1-3	A2 D5	A6	NCCER – Carpentry Modules 27104 - 27107 Skills USA – Technical Standards Book p. 149 (Carpentry)	All Aspects of Industry	NCCER – Carpentry Modules 27104 - 27107 Skills USA – Technical Standards Book p. 149 (Carpentry)
8. Demonstrate knowledge of building <b>codes &amp; regulations</b> related to the carpentry trade	MA1.4.1, MA2.4.1, MA2.4.3, MC1.4.3 R4.4 R4.5,6, R4.9 SA.14c, SA.15 SB.5	SA4,5, SA7, SA15, GE1-6, GF3,4, GOVA1,4, TE4, HLD2,3		A7		Planning Management Community Technical Skills Health & Safety	
9. Explore & analyze carpentry <b>career</b> opportunities	ME1.4.1, ME1.4.2 R4.4, R4.5, R4.6, R4.11 SD.1 W4.3	GB6, GOVF6, 7, TE5		A5 A7 B1-5	NCCER – Orientation to the Trade (27101) ASVAB Skills USA – Technical Standards Book p. 107 Total Quality	Planning Work Habits Technology Technical Skills Labor Health & Safety	NCCER – Orientation to the Trade (27101) ASVAB Skills USA – Technical Standards Book p. 107 Total Quality Management

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					Management		

**Recommended Resources: (websites, textbooks, equipment, reference materials, supplies)**

National Center for Construction Education and Research (NCCER)  
PO Box 141104  
Gainesville, FL 32614-1104 (352) 334-0911

Website <http://www.nccer.org/>

Email [info@NCCER.org](mailto:info@NCCER.org)

(ASVAB) Armed Services Vocational Aptitude Battery: Local Military Recruiter

<http://www.asvabprogram.com/>

(Auto CAD) Autodesk Inc.

<http://www3.autodesk.com/adsk/0,,129446-123112,00.html>

Skills USA VICA

<http://www.skillsusa.org/>

PO Box 3000

Leesburg, VA 20177

(703) 777-8810

American Design Drafting Association (ADDA)

Website <http://www.adda.org/>

PO Box 799

Rockville, MD 20848

(301) 460-6875

Email [national@adda.org](mailto:national@adda.org)

High School Graduation Qualifying Examinations (HSGQE) Practice Test

[http://www.eed.state.ak.us/tls/assessment/HSGQE/Final\\_HSGQE\\_Practice\\_Test.pdf](http://www.eed.state.ak.us/tls/assessment/HSGQE/Final_HSGQE_Practice_Test.pdf)

Occupational Safety and Health Administration (OSHA), US Dept. of Labor, Washington, DC

<http://www.osha.gov/>

American National Standards Institute (ANSI)

<http://www.ansi.org/>

2000 International Building Code (IBC)

[http://www.bocai.org/book\\_building.asp](http://www.bocai.org/book_building.asp)

Building Officials and Code Administrators International, Inc.,

4550 W. Flossmoor Rd.

Country Club Hills, IL 60478-5795,

(800) 214-4321

<http://www.bocai.org>

<http://www.certification.net/>

Alaska Reading, Writing and Math Standards

Alaska Content Standards

Alaska Employability Standards

Cultural Standards for Students – Alaska Native Knowledge Network.

All Aspects of Industry – Institute for Workforce Education

<http://www.eed.state.ak.us/tls/PerformanceStandards/>

<http://www.eed.state.ak.us/contentstandards/home.html>

[http://www.eed.state.ak.us/qschools/Employability\\_Standards.html](http://www.eed.state.ak.us/qschools/Employability_Standards.html)

<http://www.ankn.uaf.edu/stustan.html>

[http://www.lx.org/iwe/Resources/All\\_Aspects.doc](http://www.lx.org/iwe/Resources/All_Aspects.doc)