



Fairbanks North Star Borough School District

CAREER & TECHNICAL EDUCATION CURRICULUM

Architecture

Cabinetmaking

Drafting

Inventor Welding

drafting

Metalworking

Woods

Trades

CAD

Computer-Aided

Building

Autodesk

Construction

Architecture & Construction

ADOPTED: APRIL 4, 2017

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Course Information	
Course Name	ARCHITECTURAL DRAFTING 1A
Course Number	CTEC105
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	<i>Drafting 1A and Drafting 1B</i>
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Drafting
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	SkillsUSA
Names/Numbers of Occupational Standards	AD 1.0-3.0
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Architectural Drafting 1A</i> exposes students to the basic elements of architectural design, building code, site considerations, and mechanical considerations involved in drafting multiple representations of residential and commercial structures.
Instructional Topic Headings (please separate each heading by a semi-colon)	Room Design; Designing to Standards; Section Views
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	Revit Architecture Certified User
Course Addresses	http://downloads.certipoint.com/marketing/Autodesk/doc/ACU_Revit_Architecture.pdf
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	Yes
Date of Current Agreement	January 2016
Postsecondary Institution Name	UAF Community & Technical College
Postsecondary Course Name	Architectural Drafting I
Postsecondary Course Number	DRT F140
Number of Postsecondary Credits	3 credits with <i>Architectural Drafting 1A and 1B</i>
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Robert Rouse, Guy Zody
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will develop and demonstrate an understanding of terms commonly used in the drafting profession.	SkillsUSA AD 1.0, 1.1, 2.4	AC 1, 6 AC-DES 2	CS.4	MP.1	B2-3	2, 4	Tech/Prod	Test or Quiz; Student Product
Students will demonstrate an understanding of room design by drawing functional floor plans.	SkillsUSA AD 3.0 (3.5)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	IK.7	N-Q.1	B2-3	2, 4-8, 11	Tech/Prod	Student Product
Students will apply principles and procedures for adding annotation according to standard dimensioning practice.	SkillsUSA AD 3.0 (3.3, 3.4)	AC 1-2, 6; AC-DES 1- 8	RT.1	N-Q.3	B2-3	2, 4-8, 11	Tech/Prod	Student Product
Students will develop elevation views according to national standards.	SkillsUSA AD 2.0 (2.3.3), AD 3.0 (3.2, 3.5)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	RT.2-3	N-Q.1, 3	B2-3	2, 4-8, 11	Tech/Prod	Student Product
Students will develop site plans to national standards.	SkillsUSA AD 3.0 (3.5)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	RT.2-3	N-Q.1, 3	B2-3	2, 4-8, 11	Tech/Prod	Student Product
Students will develop section views to national standards.	SkillsUSA AD 3.0 (3.2, 3.5)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	RT.2-3	N-Q.1, 3	B2-3	2, 4-8, 11	Tech/Prod	Student Product
Students will develop detail drawings to national standards.	SkillsUSA AD 3.0 (3.5)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	RT.2-3	N-Q.1, 3	B2-3	2, 4-8, 11	Tech/Prod	Student Product
Students will develop door and window schedules that meet architectural standards.	SkillsUSA AD 2.5 (2.5.8)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	KI.3	N-Q.1, 3	B2-3	2, 4-8, 11	Tech/Prod	Student Product
Students will draw revision blocks, title blocks, and sheet sizes that meet architectural standards.	SkillsUSA AD 2.5 (2.5.4)	AC 1-2, 6	IK.7	N-Q.2	B2-3	2, 4	Tech/Prod	Student Product
Students will understand building code as it relates to architectural drafting.	SkillsUSA AD 3.0	AC-CST 7 AC-DES 1-8	KI.3	N-Q.1-3	B2-3	2, 4-8, 11	Health/Safety	Student Product
Students will understand career fields related to architectural drafting.		AC 4-5, 7; AC-CST 1	IK.7	MP.7-8	B4	1-8, 10	Labor; Tech/Prod	Student Product

Course Information	
Course Name	ARCHITECTURAL DRAFTING 1B
Course Number	CTEC106
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	<i>Drafting 1A and Drafting 1B</i>
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Drafting
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	SkillsUSA Drafting Practices and Standards Manual (DPSM)
Names/Numbers of Occupational Standards	SkillsUSA
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Architectural Drafting 1B</i> continues and completes an introductory in architectural designs and drafting. The students will complete a large project pertaining to design of a residential or commercial building. The design plan will include site plans, elevation drawings, floor plans and detail drawings.
Instructional Topic Headings (please separate each heading by a semi-colon)	Room Design; Designing to Standards; Section Views
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	Autodesk Revit User Certificate
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	Yes
Date of Current Agreement	January 2016
Postsecondary Institution Name	UAF Community & Technical College
Postsecondary Course Name	Architectural Drafting I
Postsecondary Course Number	DRT F140
Number of Postsecondary Credits	3 credits with <i>Architectural Drafting 1A and 1B</i>
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Guy Zody
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will develop and demonstrate understanding of terms commonly used in the drafting profession.	SkillsUSA AD 1.0, 1.1, 2.4	AC 1, 6; AC-DES 2	CS.4	MP.1	B2-3	2, 4	Tech/Prod	Quiz, Test; Portfolio
Students will demonstrate an understanding of room design by drawing functional floor plans.	SkillsUSA AD 3.0 (3.5)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	IK.7	N-Q.1	B2-3	2, 4-8, 11	Tech/Prod	Quiz, Test; Portfolio
Students will apply principles and procedures for adding annotation according to standard dimensioning practice.	SkillsUSA AD 3.0 (3.3, 3.4)	AC 1-2, 6; AC-DES 1-8	RT.1	N-Q.3	B2-3	2, 4, 6, 8, 11	Tech/Prod	Quiz, Test; Portfolio
Students will develop elevation views according to national standards.	SkillsUSA AD 2.0 (2.3.3) 3.0 (3.2, 3.5)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	RT.2; RT.3	N-Q.1, 3	B2-3	2, 4-8, 11	Tech/Prod	Quiz, Test; Portfolio
Students will develop site plans to national standards.	SkillsUSA AD 3.0 (3.5)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	RT.2; RT.3	N-Q.1, 3	B2-3	2, 4-8, 11	Tech/Prod	Quiz, Test; Portfolio
Students will develop section views to national standards.	SkillsUSA AD 3.0 (3.2, 3.5)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	RT.2; RT.3	N-Q.1, 3	B2-3	2, 4-8, 11	Tech/Prod	Quiz, Test; Portfolio
Students will develop detail drawings to national standards.	SkillsUSA AD 3.0 (3.5)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	RT.2; RT.3	N-Q.1, 3	B2-3	2, 4-8, 11	Tech/Prod	Quiz, Test; Portfolio
Students will develop door and window schedules that meet architectural standards.	SkillsUSA AD 2.5 (2.5.8)	AC 1-2, 6; AC-CST 7; AC-DES 1-8	KI.3	N-Q.1, 3	B2-3	2, 4-8, 11	Tech/Prod	Quiz, Test; Portfolio
Students will understand basic building code as it relates to architectural drafting.		AC-CST 7; AC-DES 1-8	IK.7	N-Q.2	B2-3	2, 4-8, 11	Health/Safety	Quiz, Test; Portfolio
Students will complete an architectural portfolio.	SkillsUSA AD 3.0	AC 1-4, 6; AC-CST 4, 7; AC-DES 1-8,	KI.3	N-Q.1-3		2, 4-8, 11	Tech/Prod	Portfolio; Related Work Product
Students will understand career fields related to architectural drafting.		AC 4-5, 7; AC-CST 1	IK.7	MP.7-8	B4	1-8, 10	Labor; Tech/Prod	Field Trip; Research Project

Course Information	
Course Name	AUTODESK INVENTOR 1A
Course Number	
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	None
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Drafting
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	SkillsUSA Technical Standards Modern Drafting Practices and Standards Manual (MDPSM)
Names/Numbers of Occupational Standards	SkillsUSA Technical Standards TD 2.0, 10.1, 11.0, VA 2.0, 5.0 MDPSM 5.1-6.1, 21.2
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Autodesk Inventor 1A</i> is a 3D modeling course that develops the skills and knowledge to create drawings, parts, assemblies, and presentations in the computer environment.
Instructional Topic Headings (please separate each heading by a semi-colon)	User Interface (UI); File Management (FM); Sketches (S); Part Modeling (PM); Assembly Modeling (AM); Presentation Files (P); Drawing (D); Visualization (V)
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	Autodesk Inventor User Certification
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Joel Scurr
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	New Course
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will demonstrate the ability to navigate the Inventor User Interface, including the ribbon, the ViewCube, and the browser.	TD 11.0	ST-ET.2-3	RI.6.4	MP 5	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will understand the parametric nature of their designs and manipulate them through the browser.	TD 11.0	ST-ET.2-3	RI.9-10.4	MP 2, 5	B1	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create a project file and understand the importance of file structure and organization in a history based parametric modeling program.	TD 11.0	ST-ET.2-3	RI.9-10.8	MP 2-3, 7	B1	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create fully constrained sketches and demonstrate an understanding of dimensions and geometric constraints.	TD 2.0	ST-ET.2-3	RI.9-10.8	G-CO.1-2, 12	B4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will use patterns and driven constraints within the sketch environment.	TD 2.0	ST-ET.2-3	RI.9-10.3	MP 4-5, 7	D6	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will use projected and cut geometry within the sketch environment.	TD 2.0	ST-ET.2-3	RI.11-12.2	G-CO.12	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will modify sketches with the move, copy, rotate, trim, extend, and offset tools.	TD 2.0	ST-ET.2-3	RI.11-12.2	MP 5	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create features using the extrude, shell, hole, sweep, loft, and revolve tools.	VA2.0	ST-ET.2-3	RI.8.10	Mp 5	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will pattern features using rectangular pattern, circular pattern, and mirror tools.	TD 11.0	ST-ET.2-3	RI.9-10.7	MP 5	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create a multibody part.	VA2.0	ST-ET.2-3	RI.11-12.7	G-CO.12	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create and use work features including planes, points, and axis.	TD 11.0	ST-ET.2-3	RI.11-12.7	MP 7; G-CO.12	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create thread, fillet, and chamfer features.	TD 11.0	ST-ET.2-3	RI.8.10	MP 5-6	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create components from a multibody part.	VA2.0	ST-ET.2-3	RI.11-12.7	MP 2, 7	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will use assembly constraints and joints.	TD 11.0	ST-ET.2-3		MP 5	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create and modify a part in the context of an assembly.	TD 11.0	ST-ET.2-3		MP 2	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will place an assembly into a presentation file and create an exploded assembly view.	TD 11.0	ST-ET.2-3		MP 2-3, 6-7	C4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create a drawing template including a border and title block.	TD 11.0	ST-ET.2-3; AC.1		MP 5	B4	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will use parts, assemblies, and presentation files to create drawings.	TD 11.0	ST-ET.2-3; AC.1		MP 5	D6	2, 4, 11	Tech/Prod; Technology	Student Products; Assessments
Students will annotate and dimension drawings according to industry norms.	TD 11.0	ST-ET.2-3; AC.1		MP 3-4	D6	2, 4, 11	Tech/Prod; Technology	Student Products; Assessments
Students will use section, detail, and auxiliary views to communicate design intent.	TD 5.0,11.0	ST-ET.2-3; AC.1		MP 3	D5	2, 4, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create rendered images in the studio environment.	TD 11.0	ST-ET.2-3		MP 5	B4	2, 4, 11	Tech/Prod; Technology	Student Products; Assessments
Students will animate an assembly including cameras constraints, and fades.	TD 11.0	ST-ET.2-3		MP 5	C4	2, 4, 11	Tech/Prod; Technology	Student Products; Assessments

Course Information	
Course Name	AUTODESK INVENTOR 1B
Course Number	
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	Autodesk Inventor 1A
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Drafting
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	SkillsUSA Technical Standards Modern Drafting Practices and Standards Manual
Names/Numbers of Occupational Standards	SkillsUSA Technical Standards TD 2.0, 10.1, 11.0, VA 2.0 MDPSM 5.1-6.1, 21.2
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Autodesk Inventor 1B is a 3D modeling course that further develops the skills and knowledge to create drawings, parts, assemblies, and presentations in a computer environment. It includes advance part and assembly modeling, as well as an introduction to different Inventor environments such as weldment, sheet metal, design, frame generator and analysis, and the rendering and animation tools.
Instructional Topic Headings (please separate each heading by a semi-colon)	File Management (FM); Sketching (S); Part Modeling (PM); Assembly Modeling (AM); Presentation (P); Drawing (D); Weldments (W); Sheet Metal (SM)
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	Autodesk Inventor Professional Certification
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Joel Scurr
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	New Course
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will create a read/write library within a project file.	TD 11.0	ST-ET.2-3	L.11-12.6; RLSTS.11.1-5, 10; WHSSTS.11-12.2d	MP 2-6	E3	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create dynamic input dimensions.	TD 2.0	ST-ET.2-3	RLSTS.11.1-5, 10	MP 2-6	E3	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will sketch using relax mode.	TD 2.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will use the 3D sketch tool.	TD 2.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create work features.	VA2.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	E3	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will edit existing parts using direct edit.	VA2.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10; WHSSTS.11.12.2b-d	MP 2-6	E3	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create a 3D path using the intersection curve and project to surface commands.	VA2.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	E3	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create a part using surfaces.	VA2.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create an iPart.	VA2.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will emboss text and a profile.	VA2.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will use the coil tool to create a printable thread.	VA2.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create a robust multibody parametric part that can withstand design revisions.	VA2.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	E3	2, 8, 11	Tech/Prod; Technology	Student Products; Assessments
Students will edit and apply a material to a part, body, and surface.	VA2.0; TD10.1	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will create a level of detail.	TD 11.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will use shrink wrap.	TD 11.0	ST-ET.2-3	RLSTS.11.1-2.10	MP 2-7	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create a frame with the frame generator.	TD 11.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will perform stress analysis of parts and assemblies.	TD 11.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	B2	2, 8, 11	Tech/Prod; Technology	Student Products; Assessments
Students will use measuring tools and find the minimum distance between parts and components.	TD 11.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will animate a presentation file.	TD 11.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 2-6	E3	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will modify a style in a drawing.	TD 11.0	ST-ET.2-3	RLSTS.11.1-2, 4, 7-10	MP 3-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will edit a hole table.	TD 11.0	ST-ET.2-3; AC.1	RI.11-12.10	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will modify a bill of materials.	TD 10.1, 11.0	ST-ET.2-3; AC.1	RI.11-12.10; RLSTS.11.1-4, 8-9	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create a weldment.	TD 11.0	ST-ET.2-3	RI.11-12.10; RLSTS.11.1-4, 8-9	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will modify sheet metal parts using corner seam, punch, and cut tools.	TD 11.0	ST-ET.2-3	RI.11-12.10; RLSTS.11.1-4, 8-9	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments
Students will create, use, and export a flat pattern.	TD 11.0	ST-ET.2-3; AC.1	RI.11-12.10; RLSTS.11.1-4, 8-9	MP 2-6	B2	2, 11	Tech/Prod; Technology	Student Products; Assessments

Course Information	
Course Name	BUILDING TRADES 1A
Course Number	CTEC3011
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	<i>Algebra I</i> (may be concurrently enrolled)
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	National Center for Construction Education and Research (NCCER) SkillsUSA
Names/Numbers of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5th edition 2015 SkillsUSA Technical Standards 2015-2016 Carpentry Skills Assessment
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Building Trades 1A</i> is designed to introduce students to basic construction craft skills and industry expectations. Shop safety concepts will be emphasized along with the introduction and use of common hand and power tools. There will also be an emphasis on promoting employability skills such as critical thinking/problem-solving, communication skills, and teamwork. These skills will be reinforced through hands-on experiences.
Instructional Topic Headings (please separate each heading by a semi-colon)	
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	National Center for Construction Education and Research (NCCER) Core Curriculum 5th edition 2015
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Guy Zody
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will develop and demonstrate an understanding of safety culture and procedures used in the construction industry.	NCCER Core 00101-15	AC-CST 5, 9; AC-MO 1; ED 4	RSST.11-12.10	MP 6	B3	1	Tech/Prod	Discussion; Quiz; Activity
Students will demonstrate safe and proper use of hand tools frequently used in construction trades.	NCCER Core 00103-15; SkillsUSA Carpentry C 10.1-10.2	AC 5, 9; AC-MO 1; ED 4	SL.11-12.4	MP 5-6	B2	2	Tech/Prod; Health/Safety	Activity
Students will demonstrate the safe and proper use of stationary and hand-held power equipment frequently used in enclosed shops and on a current construction/industrial worksite.	NCCER Core 00103-15, 00104-15	AC 5, 9; AC-MO 1; ED 4	SL.11-12.4	MP 5-6	B2	2	Tech/Prod; Health/Safety	Activity; Project
Students will use hand and power tools to construct common geometric shapes frequently used in construction and understand their connective relationship with one another.	NCCER Core 00103-15, 00104-15; SkillsUSA Carpentry C 10.1-10.2	ST-ET 1, 4; ED 3; AC 5	SL.11-12.4	MP 5-6; G-CO.1-3; G-C.2; G-MG.1	B2	8	Tech/Prod	Discussion; Activity; Project
Students will learn and apply the components of a project plan.	NCCER Core 00105-15; SkillsUSA C 1.2	ST-ET 1, 4; AC 6; AC-CST 2	SL.11-12.4	MP 2, 4, 6	B2	8	Tech/Prod	Discussion; Quiz; Activity
Students use hand and power tools to create various joinery systems commonly used in construction.	SkillsUSA Carpentry C 10.1-10.2	ST-ET 1, 4;	SL.11-12.4	MP6	B2	8	Tech/Prod	Activity; Project
Students will learn how to read and utilize a tape measure in both standard and metric forms of measurements.	NCCER Core 00102-15, 00103-15	AC 6	RSST.11-12.10	5.MD.1, 4	B2	2	Tech/Prod	Discussion; Quiz; Activity; Project
Students will demonstrate mathematical concepts to solve problems frequently encountered in the construction industry.	NCCER Core 00102-15	ST-SM 1	RSST.11-12.10	MP 1-2, 4, 6	B2	8	Tech/Prod	Discussion; Quiz; Activity; Project
Students will use carpentry tools to lay out linear and angular measurements.	NCCER Core 00102-15, 00103-15	AC-CST 2; AC-MO 3	RSST.11-12.10	8.GA.1-A-B	B2	2	Tech/Prod	Discussion; Quiz; Activity; Project
Students will understand and identify careers related to the construction Industry.		AC 7	RSST.11-12.10	MP 3	B2	5	Tech/Prod	Discussion; Activity
Students will practice basic employability skills necessary to be successful in the construction industry.	NCCER Core 00108-15	ED 3, 5	SL.11-12.4	MP3	B2	4, 12	Tech/Prod	Discussion; Quiz; Activity; Project

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will learn the communicative skills necessary to be effective in relating concepts to others and working as a productive member of a team.	NCCER Core 00107-15	AC 1; ED 2, 5	SL.11- 12.1, 3-6	MP 1-3	B2	4, 12	Tech/Prod	Activity; Project; Discussion
Students will demonstrate craft skill competencies in sequential project-based activities.	NCCER Core 00103-15, 00104-15, 00105-15	AC-MO 3; AC-CST 2, 7, 9	SL.11- 12.4, 6	MP 1-4, 6	B2	2	Tech/Prod	Activity; Project
Students will become familiar with key trade terms frequently used in the construction industry.	NCCER Core 00101-15, 00103-15, 00104-15, 00105-15	AC 1	RSST.11- 12.10	MP 5-6	B2	4, 12	Tech/Prod	Discussion; Quiz

Course Information	
Course Name	BUILDING TRADES 1B
Course Number	CTEC3022
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	<i>Algebra I</i> (may be concurrently enrolled)
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	National Center for Construction Education and Research (NCCER)
Occupational Standards	
Source of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5th edition 2015
Names/Numbers of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015 SkillsUSA Technical Standards 2015-2016 Carpentry Skills Assessment
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Building Trades 1B</i> is a continuation of <i>Building Trades 1A</i> . This course is designed to introduce students to basic construction craft skills and industry expectations. Shop safety concepts will be emphasized along with the introduction and use of common hand and power tools. There will also be an emphasis on promoting employability skills such as critical thinking/problem-solving, communication skills, and teamwork. These skills will be reinforced through hands-on experiences involving more complex individual and group projects.
Instructional Topic Headings (please separate each heading by a semi-colon)	Carpentry; Drafting; Architecture & Construction; Engineering
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	National Center for Construction Education and Research (NCCER) Core Curriculum 5th edition 2015
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Guy Zody
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will develop and demonstrate an understanding of safety culture and procedures used in the construction industry.	NCCER Core 00101-15	AC-CST 5, 9; AC-MO 1; ED 4	RI.6-12.1	MP 1, 6	B3	2	Tech/Prod	Discussion; Activity; Project; Quiz
Students will demonstrate safe and proper use of hand and power tools frequently used in construction trades.	NCCER Core 001033-15; SkillsUSA Carpentry C 10.1-10.2	AC 5, 9; AC-MO 1; ED 4	RI.6-12.1	MP 5	B3	2	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz
Students will demonstrate the safe and proper use of stationary and hand-held power equipment frequently used in enclosed shops and on a current construction/industrial worksite.	NCCER Core 00103-15, 00104-15	AC-5, 9; AC-MO 1; ED 4	RI.6-12.1	MP 5-6	B3	2	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz
Students will use hand and power tools to construct common geometric shapes frequently used in construction and understand their connective relationship with one another.	NCCER Core 00103-15, 00104-15; SkillsUSA Carpentry C 10.1-10.2	ST-ET 1, 4; ED 3; AC 5	RI.11-12.7	MP 5-6	B2	8	Tech/Prod	Discussion; Activity; Project; Quiz
Students will learn and apply the components of a project plan.	NCCER Core 00105-15; SkillsUSA C1.2	ST-ET 1, 4; AC 6; AC-CST 2	RI.11-12.7	MP 7	B2	8	Tech/Prod	Discussion; Activity; Project; Quiz
Students will use hand and power tools to create various joinery systems commonly used in construction.	NCCER 00103-15, 00104-15; SkillsUSA Carpentry C 10.1-10.2	ST-ET 1, 4	RI.11-12.7	MP 5-6	B2	8	Tech/Prod	Discussion; Activity; Project; Quiz
Students will learn how to read and utilize a tape measure in both standard and metric forms of measurements.	NCCER Core 00102-15, 00103-15		RI.11-12.7	MP 4-6	B2	2	Tech/Prod	Discussion; Activity; Project; Quiz
Students will demonstrate mathematical concepts to solve equations frequently encountered in the construction industry.	NCCER Core 00102-15	ST-SM 1	RI.11-12.7	MP 1, 4	B2	8	Tech/Prod	Discussion; Activity; Project; Quiz
Students will use carpentry tools to lay out linear and angular measurements.	NCCER Core 00102-15, 00103-15	AC-CST 2; AC-MO 3	RI.11-12.7	MP 5-6	B2	2	Tech/Prod	Discussion; Activity; Project; Quiz
Students will understand and identify careers related to the construction industry.	NCCER Core 00108-15	AC 7	RI.6-12.10	MP 4	B2	2	Tech/Prod	Discussion; Activity; Project; Quiz

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will practice basic employability skills necessary to become successful in the construction industry.	NCCER Core 00108-15	ED 3, 5	RI.11-12.7	MP 4	B2	4, 12	Tech/Prod	Discussion; Activity; Project; Quiz
Students will learn the communicative skills necessary to be effective in relating concepts to others and working as a productive member of a team.	NCCER Core 00107-15	AC 1; ED 2, 5	WS. 6-12.3; SL.6-12. 1-6	MP 4	B2	4, 12	Tech/Prod	Discussion; Activity; Project; Quiz
Students will demonstrate craft skill competencies in sequential project-based activities.	NCCER Core 00103-15, 00104-15, 00105-15	AC-MO 3; AC-CST 2, 7, 9	WS. 6-12.2, 4, 9	MP 1, 4, 6	B2	2	Tech/Prod	Discussion; Activity; Project; Quiz
Students will become familiar with key trade terms frequently used in the construction industry.	NCCER Core 00101-15, 00103-15, 00104-15, 00105-15		RI.6-12.4	MP 1, 4	B2	1	Tech/Prod	Discussion; Activity; Project; Quiz

Course Information	
Course Name	BUILDING TRADES 2A
Course Number	CTEC3033
Grade(s)	10-12
Length	One Semester
Credit	0.5
Prerequisites	Building Trades 1A/1B or Teacher Recommendation
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	National Center for Construction Education and Research (NCCER)
Occupational Standards	
Source of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015
Names/Numbers of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015 SkillsUSA Technical Standards 2015-2016 Carpentry Skills Assessment
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Building Trades 2A is designed for students who have taken Building Trades 1A/1B or equivalent. The course will guide/challenge students toward a greater development of craft skills and knowledge related to the residential and commercial carpentry industry. Students will learn how to construct basic foundations, floors, walls, and common roof systems. Students will also learn how to install doors and windows using a variety of hand and power tools.
Instructional Topic Headings (please separate each heading by a semi-colon)	Carpentry; Drafting; Architecture & Construction; Engineering
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Guy Zody, Steve Brown
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will utilize all components acquired through previous course prerequisites and build upon such knowledge and skills toward greater challenges.	NCCER 00101-15, 00103-15, 00104-15	AC-CST 5, 9; AC-MO 1; ED 4	SL.11-12.4	MP 6	B1	2-3, 6, 8, 11-12	Tech/Prod	Discussion; Activity
Students will continue to develop and demonstrate an understanding of safety practices and procedures used in the construction industry.	NCCER 00101-15, 00103-15, 00104-15	AC-CST 5, 9; AC-MO 1; ED 4	SL.11-12.4	MP 1, 6	B1	3	Tech/Prod; Health/Safety	Project-Based
Students will demonstrate the safe use and care of basic hand and power tools commonly used in carpentry.	NCCER 00103-15, 00104-15	AC-CST 5, 9 AC-MO 1 ED 4	SL.11-12.4	MP 1, 5-6	B3	3, 11	Tech/Prod; Health/Safety	Worksheet; Project
Students will demonstrate knowledge of commonly used building materials, fasteners, and adhesives.	NCCER 27102-09	AC-CST 7	RLST.11- 12.8-10	MP 1, 5-6	B4	11	Tech/Prod	Worksheet; Project
Students will acquire a knowledge of terminology commonly used in reference to building components of frame construction.	NCCER 27105-09, 27106-09	AC 1	RLST.11- 12.8-10	MP 1, 5-6	B1	2, 11	Tech/Prod	Worksheet; Project
Students will become knowledgeable of flooring systems and how to layout the components for assembly.	NCCER 27106-09	AC 2, 6; AC-CST 7-8	RLST.11- 12.8-10	MP 1, 5-6	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will construct a floor system in accordance to specifications provided by the instructor.	NCCER 27106-09	AC-CST 2, 6, 8	RLST.11- 12.8-10	MP 1, 4-7	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will become knowledgeable of wall systems and how to layout the components for assembly.	NCCER 27106-09	AC 2, 6; AC-CST, 7,8	RLST.11- 12.8-10	MP 1, 4-7	B2	2, 11	Tech/Prod	Project-Based Assessment
Students will construct and assemble multiple wall systems in accordance to specifications provided by the instructor.	NCCER 27106-09	AC-CST 2, 6, 8	RLST.11- 12.8-10	MP 1, 4-7	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will become knowledgeable of roofing systems and learn how to layout components for assembly.	NCCER 27107-09	AC 2, 6; AC-CST 7-8	RLST.11- 12.8-10	MP 1, 4-7	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will construct and assemble a roof system in accordance to specifications provided by the instructor.	NCCER 27107-09	AC-CST 2, 6, 8	RLST.11- 12.8-10	MP 1, 4-7	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will learn how to physically install doors and windows in accordance to a roughed in project plan.	NCCER 27109-09	AC 2, 6; AC-CST 7-8	RLST.11- 12.8-10	MP 1, 4-7	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will become knowledgeable of the numerous career pathways available in the construction industry and learn how to access local apprenticeship programs in their area.	NCCER 00101-15, 00103-15, 00104-15	AC 4-5, 7	RLST.11- 12.8-10	MP 1, 4-6, 8	B2	1, 8	Work Habits; Labor	Research Paper

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will learn to access and attain industry certifications recognized by local unions.	NCCER 00101-15, 00103-15	AC 4-5, 7	RLST.11- 12.8-10	MP 1, 4-6	B2-3	2, 5	Labor; Health/Safety	Worksheet; Assessment

Course Information	
Course Name	BUILDING TRADES 2B
Course Number	CTCE3044
Grade(s)	10-12
Length	One Semester
Credit	0.5
Prerequisites	Building Trades 2A or Teacher Recommendation
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	National Center for Construction Education and Research (NCCER)
Occupational Standards	
Source of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015
Names/Numbers of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015 SkillsUSA Technical Standards 2015-2016 Carpentry Skills Assessment
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Building Trades 2B is designed for students who have taken Building Trades 1A/1B or equivalent. The course will guide/challenge students toward a greater development of craft skills and knowledge related to the residential and commercial carpentry industry. Students will learn how to construct basic foundations, floors, walls and common roof systems. Students will also learn how to install doors and windows using a variety of hand and power tools.
Instructional Topic Headings (please separate each heading by a semi-colon)	Carpentry; Drafting; Architecture & Construction; Engineering
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Guy Zody, Steve Brown
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will utilize all components acquired through previous course prerequisites and build upon such knowledge and skills toward greater challenges.	NCCER 00101-15, 00103-15, 00104-15	AC-CST 5, 9; AC-MO 1; ED 4	SL.11-12.4	MP6	B1	2-3, 6, 8, 11-12	Tech/Prod	Discussion; Activity
Students will continue to develop and demonstrate an understanding of safety practice and procedures used in the construction industry.	NCCER 00101-15, 00103-15, 00104-15	AC-CST 5, 9; AC-MO 1; ED 4	SL.11-12.4	MP 1, 6	B1	3	Tech/Prod; Health/Safety	Project-Based
Students will demonstrate the safe use and care of basic hand and power tools commonly used in carpentry.	NCCER 00103-15, 00104-15	AC-CST 5, 9; AC-MO 1; ED 4	SL.11-12.4	MP 1, 5-6	B3	3, 11	Tech/Prod; Health/Safety	Worksheet; Project
Students will demonstrate knowledge of commonly used building materials, fasteners, and adhesives.	NCCER 27102-09	AC-CST 7	RLST.11-1, 2.8, 9.10	MP 1, 5-6	B4	11	Tech/Prod	Worksheet; Project
Students will acquire a knowledge of terminology commonly used in reference to building components of frame construction.	NCCER 27105-09, 27106-09	AC 1	RLST.11-1, 2.8, 9.10	MP 1, 5-6	B1	2, 11	Tech/Prod	Worksheet; Project
Students will become knowledgeable of flooring systems and how to layout the components for assembly.	NCCER 27106-09	AC 2, 6; AC-CST 7-8	RLST.11-1, 2.8, 9.10	MP 1, 5-6	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will construct a floor system in accordance to specifications provided by the instructor.	NCCER 27106-09	AC-CST 2, 6, 8	RLST.11-1, 2.8, 9.10	MP 1, 4-7	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will become knowledgeable of wall systems and how to layout the components for assembly.	NCCER 27106-09	AC 2, 6; AC-CST 7-8	RLST.11-1, 2.8, 9.10	MP 1, 4-7	B2	2, 11	Tech/Prod	Project-Based Assessment
Students will construct and assemble multiple wall systems in accordance to specifications provided by the instructor.	NCCER 27106-09	AC-CST 2, 6, 8	RLST.11-1, 2.8, 9.10	MP 1, 4-7	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will become knowledgeable of roofing systems and learn how to layout components for assembly.	NCCER 27107-09	AC 2, 6; AC-CST 7-8	RLST.11-1, 2.8, 9.10	MP 1, 4-7	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will construct and assemble a roof system in accordance to specifications provided by the instructor.	NCCER 27107-09	AC-CST 2, 6, 8	RLST.11-1, 2.8, 9.10	MP 1, 4-7	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will learn how to physically install doors and windows in accordance to a roughed in project plan.	NCCER 27109-09	AC 2, 6; AC-CST 7-8	RLST.11-1, 2.8, 9.10	MP 1, 4-7	B4	2, 11	Tech/Prod	Project-Based Assessment
Students will become knowledgeable of the numerous career pathways available in the construction industry and learn how to access local apprenticeship programs in their area.	NCCER 00101-15, 00103-15, 00104-15	AC 4-5, 7	RLST.11-1, 2.8, 9.10	MP 1, 4-6, 8	B2	1, 8	Work Habits; Labor	Research Paper

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will learn to access and attain industry certifications recognized by local unions.	NCCER 00101-15, 00103-15	AC 4-5, 7	RLST.11-1, 2.8, 9.10	MP 1, 4-6	B2-3	2, 5	Labor; Health/Safety	Worksheet; Assessment

Course Information	
Course Name	BUILDING TRADES 3A
Course Number	CTEC3055
Grade(s)	11-12
Length	One Semester
Credit	0.5
Prerequisites	<i>Building Trades 2A/2B</i> or Teacher Recommendation
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	National Center for Construction Education and Research (NCCER)
Occupational Standards	
Source of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015
Names/Numbers of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015 SkillsUSA Technical Standards 2015-2016 Carpentry Skills Assessment
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Building Trades 3A</i> is for students who have successfully completed <i>Building Trades 2A/2B</i> and want to continue learning about residential and commercial carpentry. Students will expand their knowledge of building materials and become more proficient interpreting project plans. As the course progresses, students will develop a knowledge of finish carpentry and cabinet making. Students will learn how to build and install a cabinet.
Instructional Topic Headings (please separate each heading by a semi-colon)	Carpentry; Drafting; Architecture & Construction; Engineering
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Guy Zody
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will review safety and technical standards for <i>Building Trades 1A/1B</i> and <i>2A/2B</i> .	NCCER CORE 00101-15	AC-CST 5, 9; AC-MO 1; ED 4	RS.6-12.4	MP 4	B1	2-3, 6, 8, 11-12	Tech/Prod	Discussion; Activity
Students will continue to learn about the various building materials, fasteners, and adhesives frequently used to interconnect building components.	NCCER Carpentry Level 1 27102-13	AC-CST 9; AC-MO 3	RS.6-12.4	MP 5	B4	11	Tech/Prod	Worksheet; Project
Students will continue to learn the essentials of reading blueprint plans and drawings. This would include specifications and types of information relevant to the carpentry trades.	NCCER CORE 00105-15; Carpentry Level 1 27104-13	AC 1, 6; AC-DES 6-7	RS.6-12.7	MP 4-5, 7	B1	3	Tech/Prod; Health/Safety	Project-based
Students will become acquainted with various types of concrete and mixtures, and will become knowledgeable of reinforcing materials, forms, and ties..	SkillsUSA C2.1, C3.1-3.4	AC-CST 9	RS.6-12.4	MP 5	B4	2, 11	Tech/Prod	Project-based; Assessment
Students will learn the basic components of designing, building, and installing cabinet systems. They will design and build a cabinet.	SkillsUSA C7.4; CM 1.0-5.0	AC 2, 6; AC-CST 7, 9	RS.6-12.4	MP5	B4	2, 11	Tech/Prod	Project-based; Assessment
Students will review applicable uniform plumbing codes/requirements.	SkillsUSA PLB.6.0	AC-MO 1, 3, 6	RS.6-12.4	MP 5	B1	2-3, 6, 8, 11-12	Tech/Prod; Health/Safety	Discussion; Activity; Quiz
Students will demonstrate understanding of types and uses of pipe and fittings.	SkillsUSA PLB.3.0	AC-CST 9	RS.6-12.4	MP 5	B4	11	Tech/Prod	Worksheet; Project
Students will learn appropriate terminology related to the plumbing industry.	SkillsUSA PLB.1.0	AC 1	RS.6-12.4	MP 4-5	B4	2	Tech/Prod	Worksheet; Project
Students will review applicable National Electrical Codes/Requirements.	SkillsUSA ECW.1.0-2.0	AC-MO 1, 3, 6	RS.6-12.4	MP 4-5	B1	2-3, 6, 8, 11-12	Tech/Prod; Health/Safety	Discussion; Activity; Quiz
Students will learn the basic installation of branch circuits and wiring.	SkillsUSA ECW.2.0	AC-CST 9	RS.6-12.4	MP 5	B4	11	Tech/Prod	Worksheet; Project
Students will learn about cold climate housing technology and the various methods associated with green building.	NCCER-CORE 00105-14	AC-DES 1-8	RS.6-12.4	MP 5	B4	2, 5-8, 11-12	Tech/Prod Health/Safety Technology	Worksheet; Project

Course Information	
Course Name	BUILDING TRADES 3B
Course Number	CTEC3066
Grade(s)	
Length	One Semester
Credit	0.5
Prerequisites	<i>Building Trades 3A</i>
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	National Center for Construction Education and Research (NCCER)
Occupational Standards	
Source of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015
Names/Numbers of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015 SkillsUSA Technical Standards 2015-2016 Carpentry Skills Assessment
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Building Trades 3B</i> is a continuation of <i>Building Trades 3A</i> and want to continue learning about residential and commercial carpentry. Students will expand their knowledge of building materials and become more proficient interpreting project plans. As the course progresses, students will develop a knowledge of finish carpentry and cabinet making. Students will learn how to build and install a cabinet.
Instructional Topic Headings (please separate each heading by a semi-colon)	Carpentry; Drafting; Architecture & Construction; Engineering
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Guy Zody, Steve Brown
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will review safety and technical standards for <i>Building Trades 1A/1B</i> and <i>2A/2B</i> .	NCCER CORE 00101-15	AC-CST 5, 9; AC-MO 1; ED 4	RS.6-12.4	MP 4	B1	2-3, 6, 8, 11-12	Tech/Prod	Discussion; Activity
Students will continue to learn about the various building materials, fasteners, and adhesives frequently used to interconnect building components.	NCCER Carpentry Level 1 27102-13	AC-CST 9; AC-MO 3	RS.6-12.4	MP 5	B4	11	Tech/Prod	Worksheet; Project
Students will continue to learn the essentials of reading blueprint plans and drawings. This would include specifications and types of information relevant to the carpentry trades.	NCCER CORE 00105-15; Carpentry Level 1 27104-13	AC 1, 6; AC-DES 6-7	RS.6-12.7	MP 4-5, 7	B1	3	Tech/Prod; Health/Safety	Project-based
Students will become acquainted with various types of concrete and mixtures, and will become knowledgeable of reinforcing materials, forms, and ties..	SkillsUSA C2.1, C3.1-3.4	AC-CST 9	RS.6-12.4	MP 5	B4	2, 11	Tech/Prod	Project-based; Assessment
Students will learn the basic components of design, building, and installing cabinet systems. They will design and build a cabinet.	SkillsUSA C7.4; CM 1.0-5.0	AC 2, 6; AC-CST 7, 9	RS.6-12.4	MP5	B4	2, 11	Tech/Prod	Project-based; Assessment
Students will review applicable uniform plumbing codes/requirements.	SkillsUSA PLB.6.0	AC-MO 1, 3, 6	RS.6-12.4	MP 5	B1	2-3, 6, 8, 11-12	Tech/Prod; Health/Safety	Discussion; Activity; Quiz
Students will demonstrate understanding of types and uses of pipe and fittings.	SkillsUSA PLB.3.0	AC-CST 9	RS.6-12.4	MP 5	B4	11	Tech/Prod	Worksheet; Project
Students will learn appropriate terminology related to the plumbing industry.	SkillsUSA PLB.1.0	AC 1	RS.6-12.4	MP 4-5	B4	2	Tech/Prod	Worksheet; Project
Students will review applicable National Electrical Codes/Requirements.	SkillsUSA ECW.1.0-2.0	AC-MO 1, 3, 6	RS.6-12.4	MP 4-5	B1	2-3, 6, 8, 11-12	Tech/Prod; Health/Safety	Discussion; Activity; Quiz
Students will learn the basic installation of branch circuits and wiring.	SkillsUSA ECW.2.0	AC-CST 9	RS.6-12.4	MP 5	B4	11	Tech/Prod	Worksheet; Project
Students will learn about cold climate housing technology and the various methods associated with green building.	NCCER-CORE 00105-14	AC-DES 1-8	RS.6-12.4	MP 5	B4	2, 5-8, 11-12	Tech/Prod Health/Safety Technology	Worksheet; Project

Course Information	
Course Name	BUILDING TRADES 4A
Course Number	CTEC3077
Grade(s)	12
Length	One Semester
Credit	0.5
Prerequisites	Building Trades 3A/3B and Teacher Recommendation
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	National Center for Construction Education and Research (NCCER) SkillsUSA
Names/Numbers of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015 SkillsUSA Technical Standards 2015-2016 Carpentry Skills Assessment
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	In <i>Building Trades 4A</i> , students will <i>declare</i> a specific trade apprenticeship in which to focus upon throughout the school year. Both student and instructor will determine together a personalized assessment of the student's current knowledge and skills (based off the student's previous three years of study) and plot a direction for successful entry into such post-secondary apprenticeship program. Independent learning assignments which engage the apprenticeship program and local business partners will be utilized along with internet searches and resources. The course will discuss in further detail: building site earth work, soil types, foundational methods, roof rafters, stair calculations along with enclosure methods and building envelopes. In addition, students will be expected to continue developing their craft skills by designing and building a capstone project. Student's may independently choose to obtain other industry certifications or complete those they had previously began.
Instructional Topic Headings (please separate each heading by a semi-colon)	Carpentry; Drafting; Architecture & Construction; Engineering
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	National Center for Construction Education and Research (NCCER)
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Guy Zody, Steve Ratzlaff
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Student's will engage in self-assessments and planning for their post-secondary future.	NCCER Core 00107-09	AC 7; ED 9-10	SL.6-12.4	MP 5-6	C4	1, 4, 10	Tech/Prod	Reflection; Discussion; Planning
Student's will <i>declare</i> a pre-apprenticeship program and will define sequential steps toward acceptance and entry.	NCCER Carpentry 1 27101-06	AC 5	WHST. 6-12.2	MP 5-6	C4	10	Tech/Prod	Discussion; Planning
Student's will make contact with their local apprenticeship program and local business partners.	NCCER Carpentry 1 27101-06	ED-TT 11; ED 5	LS.6-12.4	MP 5-6	C4	4, 10	Tech/Prod	Planning; Collaboration
Students will successfully submit an application to their local apprenticeship of choice along with a well-crafted résumé.	NCCER Carpentry 1 27101-06	ED 2, 10; AC 7	WHST. 6-12.2, 4	MP 5	C4	4, 10	Tech/Prod	Organizing; Planning; Activity
Student's will engage in mock interviews.	NCCER Carpentry 1 27101-06	AC-DES 2	WHST. 6-12.2, 7	MP 5	C4	10	Tech/Prod	Preparation; Reflection; Discussion
Student's will develop employability soft skills.	NCCER Core 00107-09, 00108-09	AC 5	WHST. 6-12.2	MP 5	C4	1, 12	Tech/Prod	Activity; Praxis; Discussion
Student's will develop leadership skills with the expectation to supervise other classmates in some phase of a construction process.	NCCER Core 00108-09	AC-CST 6-9; AC 6; ED 3, 5	SL.6-12.4	MP 5	C4	8-9, 12	Tech/Prod	Activity; Organization; Discussion
Students must perform necessary construction math calculations and measurements in complex scenarios.	SkillsUSA C1.0; NCCER Core 00102-09	ST-ET 1, 4; ST-SM 2	RST.6-12.10	MP 5	C4	6, 11	Tech/Prod	Activity; Project-based Assessment
Students must successfully design and build roof rafters and a set of stairs.	SkillsUSA C5.0, C8.0-8.3; NCCER Carpentry 27107-06, 27110-06	ST-ET 1, 4; ST-SM 2; AC 6	SL.6-12.2	MP 5	C4	4, 8	Tech/Prod	Activity; Project-based Assessment
Students will learn about building site earth work, soil types, and foundational structures.	SkillsUSA C2.0; NCCER Core 00101-09; Carpentry 1 27105-06, 27108-06	AC-CST 9; AC-DES 3	SL.9-12.4	MP 5	C4	2, 8	Tech/Prod	Discussion; Quiz

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will design and build a <i>Capstone project</i> as approved by the instructor.	SkillsUSA C1.1-2, C4.1, C10.2	ST-ET 1, 4; AC 1, 6; AC-CST 1-9	SL.9-12.4	MP 5	C4	2, 4, 12	Tech/Prod	Planning; Organization; Activity
Students may mentor younger students in basic carpentry skills.	NCCER Core 00108-09	ED-TT 2, 4-5, 11	SL.9-12.4	MP 5	C4	4, 12	Tech/Prod	Leadership Discussion

Course Information	
Course Name	BUILDING TRADES 4B
Course Number	CTEC3088
Grade(s)	12
Length	One Semester
Credit	0.5
Prerequisites	Building Trades 4A and Teacher Recommendation
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015 SkillsUSA
Names/Numbers of Occupational Standards	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015 SkillsUSA Technical Standards 2015-2016 Carpentry Skills Assessment
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	In <i>Building Trades 4B</i> , students will continue to <i>declare</i> a specific trade apprenticeship in which to focus upon throughout the school year. Both student and instructor will determine together a personalized assessment of the student's current knowledge and skills (based off the student's previous three years of study) and plot a direction for successful entry into such post-secondary apprenticeship program. Independent learning assignments which engage the apprenticeship program and local business partners will be utilized along with internet searches and resources. The course will discuss in further detail: building site earth work, soil types, foundational methods, roof rafters, stair calculations along with enclosure methods and building envelopes. In addition, students will be expected to continue developing their craft skills by designing and building a capstone project. Student's may independently choose to obtain other industry certifications or complete those they had previously began.
Instructional Topic Headings (please separate each heading by a semi-colon)	Carpentry; Drafting; Architecture & Construction; Engineering
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	National Center for Construction Education and Research (NCCER) Core Curriculum 5 th edition 2015
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes

Employability Standards	
Source of Employability Standards	Alaska
Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Guy Zody, Steve Brown
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Student's will engage in self-assessments and planning for their post-secondary future.	NCCER Core 00107-09	AC 7; ED 9-10	SL.6-12.4	MP 5-6	C4	1, 4, 10	Tech/Prod	Reflection; Discussion; Planning
Student's will <i>declare</i> a pre-apprenticeship program and will define sequential steps toward acceptance and entry.	NCCER Carpentry 1 27101-06	AC 5	WHST. 6-12.2	MP 5-6	C4	10	Tech/Prod	Discussion; Planning
Student's will make contact with their local apprenticeship program and local business partners.	NCCER Carpentry 1 27101-06	ED-TT 11; ED 5	LS.6-12.4	MP 5-6	C4	4, 10	Tech/Prod	Planning; Collaboration
Students will successfully submit an application to their local apprenticeship of choice along with a well-crafted résumé.	NCCER Carpentry 1 27101-06	ED 2, 10; AC 7	WHST. 6-12.2, 4	MP 5	C4	4, 10	Tech/Prod	Organizing; Planning; Activity
Student's will engage in mock interviews.	NCCER Carpentry 1 27101-06	AC-DES 2	WHST. 6-12.2, 7	MP 5	C4	10	Tech/Prod	Preparation; Reflection; Discussion
Student's will develop employability soft skills.	NCCER Core 00107-09, 00108-09	AC 5	WHST. 6-12.2	MP 5	C4	1, 12	Tech/Prod	Activity; Praxis; Discussion
Student's will develop leadership skills with the expectation to supervise other classmates in some phase of a construction process.	NCCER Core 00108-09	AC-CST 6-9; AC 6; ED 3, 5	SL.6-12.4	MP 5	C4	8-9, 12	Tech/Prod	Activity; Organization; Discussion
Students must perform necessary construction math calculations and measurements in complex scenarios.	SkillsUSA C1.0; NCCER Core 00102-09	ST-ET 1, 4; ST-SM 2	RST.6-12.10	MP 5	C4	6, 11	Tech/Prod	Activity; Project-based Assessment
Students must successfully design and build roof rafters and a set of stairs.	SkillsUSA C5.0, C8.0-8.3; NCCER Carpentry 27107-06, 27110-06	ST-ET 1, 4; ST-SM 2; AC 6	SL.6-12.2	MP 5	C4	4, 8	Tech/Prod	Activity; Project-based Assessment
Students will learn about building site earth work, soil types, and foundational structures.	SkillsUSA C2.0; NCCER Core 00101-09; Carpentry 1 27105-06, 27108-06	AC-CST 9; AC-DES 3	SL.9-12.4	MP 5	C4	2, 8	Tech/Prod	Discussion; Quiz

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will design and build a <i>Capstone project</i> as approved by the instructor.	SkillsUSA C1.1-2, C4.1, C10.2	ST-ET 1, 4; AC 1, 6; AC-CST 1-9	SL.9-12.4	MP 5	C4	2, 4, 12	Tech/Prod	Planning; Organization; Activity
Students may mentor younger students in basic carpentry skills.	NCCER Core 00108-09	ED-TT 2, 4-5, 11	SL.9-12.4	MP 5	C4	4, 12	Tech/Prod	Leadership Discussion

Course Information	
Course Name	COMPUTER AIDED DRAFTING (CAD) 1A
Course Number	CTEC103
Grade(s)	10-12
Length	One Semester
Credit	0.5
Prerequisites	Drafting 1A/1B
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Drafting
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	Modern Drafting Practices and Standards Manual SkillsUSA
Names/Numbers of Occupational Standards	MDPSM Chapters 3, 5-6, 10, 14, 21
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Computer Aided Drafting 1A provides an understanding of the features, limitations, and considerations associated with the operation of a computer-based drafting system. Students will gain experience using CAD software and associated plotters, printers, etc. Students will progress in a self-paced curriculum incrementally developing CAD competency as demonstrated by drawings that are produced throughout the course.
Instructional Topic Headings (please separate each heading by a semi-colon)	Features of CAD System; Limitations of CAD System; Considerations in Operation of CAD System; CAD Software; Plotters; Printers
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	Yes
Date of Current Agreement	January 2016
Postsecondary Institution Name	UAF Community & Technical College
Postsecondary Course Name	Beginning AutoCAD
Postsecondary Course Number	DRT 170
Number of Postsecondary Credits	3 credits with <i>Computer Aided Drafting 1A/1B</i>
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Robert Rouse, Guy Zody
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will analyze multi-view drawings.	MDPSM 5.3	AC 1, 6	RST. 11-12.10	MP 7	B4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets
Students will apply dimensions to drawings according to drafting standards and practices.	MDPSM 6.0-6.11	AC 1, 3, 6	RST. 11-12.10	MP 5	B4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets
Students will understand and draw objects to correct scale.	MDPSM 3.1.4	AC 1-3, 6	RST. 11-12.5	MP 5	B4, E4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets
Students will determine and utilize appropriate symbols and text techniques.	MDPSM 3.0, 5.1, 5.25.5, 6.0, 7.1-7.5	AC 1, 3, 6	RST. 11-12.5	MP 3	B4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets
Students will understand the spatial relation between views and objects.	MDPSM 5.1-5.8	AC 1, 3, 6	RST. 11-12.3	MP 7	B4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets
Students will use orthographic projection to develop views and object placement.	MDPSM 5.1, 5.8	AC 1, 3, 6	RST. 11-12.3	MP 5	B4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets
Students will show proficiency in drawing pictorial-drawing methods such as isometric, oblique, and perspective using CAD software.	MDPSM 5.5	AC 1-3, 6	RST. 11-12.5	MP 5	B4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets
Students will be aware of and practice basic CAD drafting techniques.	MDPSM 21.2	AC 1-7	RST. 11-12.5	MP 6	B4, E4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets
Students will identify careers related to design and drafting.		AC 4-5, 7	RST. 11-12.3	MP 5	B4	10	Labor; Community; Work Habits	Research Paper
Students will develop and demonstrate understanding of terms commonly used in the drafting profession.	SkillsUSA AD 1.0, 1.1, 2.4	AC 1, 6	RST. 11-12.5	MP 3	B4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets
Students will apply principles and procedures for adding annotation according to standard dimensioning practice.	MDPSM 6.2, 14.0-14.7	AC 1-3, 6	RST. 11-12.3	MP 3	B4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets
Students will draw revision blocks, title blocks, and sheet sizes according to industry standards.	MDPSM 10.1-10.4, 3.1-3.6; SkillsUSA AD 2.5 (2.5.4)	AC 1-3, 6	RST. 11-12.5	MP 5	B4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets
Students will understand career fields related to CAD.		AC 1, 3-5, 7	RST.11-12.3	MP 3	B4	10	Tech/Prod; Technology	Research Paper
Students will utilize advanced drafting and design tools such as AutoCAD drafting programs and plotters.	MDPSM 21.0-21.11	AC 1-3, 6	RST.11-12.2	MP 3, 5	B4	2, 4, 8	Management; Technology	Drawings; Worksheets
Students will construct advanced CAD two-dimensional drawings using multiple command methods, absolute and relative coordinates, and polar snap/grid.	MDPSM 5.3	AC 1-3, 6	RST. 11-12.5	MP 7	B4	2, 4, 8	Tech/Prod; Technology	Drawings; Worksheets

Course Information	
Course Name	COMPUTER AIDED DRAFTING (CAD) 1B
Course Number	CTEC104
Grade(s)	10-12
Length	One Semester
Credit	0.5
Prerequisites	Computer Aided Drafting (CAD) 1A
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Drafting
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	Modern Drafting Practices and Standards Manual: www.thedraftingzone.com SkillsUSA
Names/Numbers of Occupational Standards	MDPSM 5.1-6.1, 21.2
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Computer Aided Drafting 1B emphasizes CAD techniques such as 3D applications, rendering, and working drawings. Projects are self-paced and require a high degree of self-pace, self-motivation, and discipline in order to attain the completion of the course.
Instructional Topic Headings (please separate each heading by a semi-colon)	CAD Techniques; 3D Applications; Rendering Drawings; Working Drawings; Assembly Drawings; Animation Techniques
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	Autodesk User Certification
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	Yes
Date of Current Agreement	January 2016
Postsecondary Institution Name	UAF Community & Technical College
Postsecondary Course Name	Beginning AutoCAD
Postsecondary Course Number	DRT 170
Number of Postsecondary Credits	3 credits with <i>Computer Aided Drafting (CAD) 1A/1B</i>
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Robert Rouse, Guy Zody
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will demonstrate proper startup and care of computer drafting software and equipment.	MDPSM 21.0.3; SkillsUSA TD 11.0	AC 6	RST. 11-12.5	MP 5	B3	2, 8, 11	Tech & Prod; Technology	Performance; Quiz
Students will demonstrate advanced ability to manage computer-drawing files.	MDPSM 21.01-03, 21.1-3; SkillsUSA TD 11	AC 6	RST. 11-12.5	MP 5	B4	2, 4, 8, 11	Tech & Prod; Technology	Drawings
Students will develop knowledge of drafting symbols related to specific industrial sectors including electrical, welding, and mechanical.	MDPSM 3.0, 5.1, 5.25.5, 6.0, 7.1-7.5	AC 1, 6	RST. 11-12.5	M- 6	B3; E4	2, 4	Tech & Prod; Technology	Drawings; Quizzes
Students will use the CAD software vocabulary to explain drafting problems.	MDPSM 21 (all), TD 11	AC 1, 6	RST. 11-12.5	MP 5	B4; C4	2, 4, 8, 11	Tech & Prod; Technology	Quizzes
Students will create a drawing portfolio as a documentation of techniques.	SkillsUSA AD 3.1-3.5	AC 6	RST. 11-12.5	MP 3	B4	2, 4, 10	Tech & Prod; Technology	Portfolio
Students will develop and demonstrate understanding of terms commonly used in the drafting profession.	SkillsUSA AD 1.0, 1.11, 2.4	AC 1, 6	RST. 11-12.3	MP 3	B4	2, 4, 8	Tech & Prod; Technology	Drawings; Quizzes
Students will apply principles and procedures for adding annotation according to standard dimensioning practice.	MDPSM 6.2, 14.0-14.7; SkillsUSA AD 2.5	AC 1, 6	RST. 11-12.5	MP 3	B4	2, 4, 8, 11	Tech & Prod; Technology	Drawings; Quizzes
Students will draw revision blocks, title blocks, and sheet sizes according to standards.	MDPSM 10.1-10.4, 3.1-3.6; SkillsUSA AD 2.5 (2.5.4)	AC 1, 6	RST. 11-12.3	MP 5	B4	2, 4	Health/Safety	Drawings
Students will understand how specific careers related to drafting fit within all aspects of the construction industry.		AC 4	RST. 11-12.2	MP 3	E4; E8	2, 8, 10	All Aspects 1-9	Research Paper
Students will demonstrate efficient use of basic CAD commands to construct three-dimensional drawings.	MDPSM 5.3, 5.5, 21 (all); SkillsUSA TD 9.0, 11.0	AC 2, 6	RST. 11-12.5	MP 5	B4; C4	2, 4, 8	Tech & Prod; Technology	Drawings

Course Information	
Course Name	DRAFTING 1A
Course Number	CTEC101
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	None
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	Modern Drafting Practices and Standards Manual
Names/Numbers of Occupational Standards	MDPSM 5.1-5.5, 6.1
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Drafting 1A</i> will introduce students to the basics skills of drafting, including pictorial representations, drawing tools, layout, scale, and introduction to Computer-Assisted Drafting (CAD). The students will focus on illustrating two-dimensional working drawings as well as three-dimensional isometric and oblique drawings, including proper dimensions. This course is a prerequisite to all other drafting courses and provides a foundation for the reading and plans in the construction and manufacturing industry.
Instructional Topic Headings (please separate each heading by a semi-colon)	Introduction to Basic Drafting Tools & Techniques and CAD; Measurement and Scales; Line Usage; Views & Planes; Industry Performance Standards; Dimension Techniques; Pictorial Views; Careers in Drafting & Design
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	Yes
Date of Current Agreement	January 2016
Postsecondary Institution Name	UAF Community & Technical College
Postsecondary Course Name	Introduction to Drafting
Postsecondary Course Number	DRT F101
Number of Postsecondary Credits	3 credits with <i>Drafting 1A/1B</i>
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Robert Rouse, Guy Zody
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will analyze line types, planes, surfaces, and properties of basic multi-view drawings.	MDPSM 5.3-5.11	ST-SM 1	RST. 11-12.3	MP 4	B2, 4-5	8, 11	Tech/Prod; Technology	
Students will apply dimensions to drawings according to drafting standards and practices.	MDPSM 5.2	ST-SM 1	RST. 11-12.7	MP 6	B2, 4; E4	11	Tech/Prod; Technology	
Students will understand and draw objects to correct scale.	MDPSM 5.2	ST-SM 4	RST. 11-12.3	MP 6	B2, 4; E4	11	Tech/Prod; Technology	
Students will accurately calculate and center drawings.	MDPSM 5.3	ST-ET 1	RST. 11-12.3	MP 6	B2, 4; E4	2	Tech/Prod; Technology	
Students will use lines and line weights that meet drafting standards.	MDPSM 5.1	ST-ET 1	RST. 11-12.3	MP 6	B2, 4; E4	11	Tech/Prod; Technology	
Students will determine and utilize appropriate symbols and letter techniques.	MSPSM 6.1	ST-SM 3	RST. 11-12.7	MP 5	B2,4; E4	11	Tech/Prod; Technology	
Students will understand the spatial relation between views and objects.	MDPSM 5.2-5.5	ST-ET 5	RST. 11-12.10	MP 7	B2, 4; E4	2	Tech/ Prod; Technology	
Students will use orthographic projection to develop views and object placement.	MDPSM 5.3	ST-ET 1	RST. 11-12.3	MP 4, 7	B2, 4; E4	2	Tech/Prod; Technology	
Students will demonstrate geometric construction with drafting equipment.	MDPSM 5.2-5.5	ST-SM 1	RST. 11-12.3	MP 4	B2, 4; E4	11	Tech/Prod; Technology	

Course Information	
Course Name	DRAFTING 1B
Course Number	CTEC102
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	Drafting 1A
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Drafting
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	Modern Drafting Practices and Standards Manual
Names/Numbers of Occupational Standards	MDPSM 5.1-5.5, 6.1, 6.3, 21.2
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Drafting 1B is a continuation of Drafting 1A. Students will gain experience and confidence in the use of Computer-Assisted Drafting, illustrating advanced pictorial drawings such as isometric, oblique pictorials, auxiliary views, and perspective drawings. The students will also learn basic architectural drafting skills and use the skills to draw multiple views of a residential home.
Instructional Topic Headings (please separate each heading by a semi-colon)	Advanced Pictorials; Isometrics; Oblique Pictorials; Perspective Drawings; Introduction to CAD
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	Yes
Date of Current Agreement	January 2016
Postsecondary Institution Name	UAF Community & Technical College
Postsecondary Course Name	Introduction to Drafting
Postsecondary Course Number	DRT F101
Number of Postsecondary Credits	3 credits with <i>Drafting 1A/1B</i>
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Robert Rouse, Guy Zody
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will analyze line types, planes, surfaces, and properties of advanced multi-view drawings.	MDPSM 5.3-5.11	ST-SM 1	RST. 11-12.3	MP 4	B2-B3	2	Tech/Prod; Technology	
Students will demonstrate the ability to apply dimensions to advanced drawings according to drafting standards and practices.	MDPSM 5.2	ST 4	RST. 11-12.7	MP 6	B2-3; E4	2	Tech/Prod; Technology	
Students will understand and draw objects to correct scale.	MDPSM 5.2	ST-SM 4	RST. 11-12.3	MP 6	B2-3	2	Tech/Prod; Technology	
Students will use lines and weights that meet drafting standards.	MDPSM 5.1	ST-ET 1	RST. 11-12.3	MP 6	B2-4; E4	2	Tech/Prod; Technology	
Students will determine and utilize appropriate symbols and letter techniques.	MDPSM 6.1	ST-SM 3	RST. 11-12.3	MP 5	B2-4	2	Tech/Prod; Technology	
Students will demonstrate understanding of basic tolerance applications.	MDPSM 6.3	ST-ET.2	RST. 11-12.7	MP 7	B2-4	2	Tech/ Prod; Technology	
Students will demonstrate competence of spatial relationships between views and objects.	MDPSM 5.2-5.5	ST-ET.5	RST.11-12.10	MP 4, 7	E4	2	Tech/Prod; Technology	
Students will use orthographic projection to develop views and object placement.	MDPSM 5.3	ST-ET.1	RST. 11-12.3	MP 4	B4	2	Tech/Prod; Technology	
Students will identify and show proficiency in drawing advanced pictorial-drawing.	MDPSM 5.5	ST-ET.1	RST. 11-12.3	MP 4	B4	2	Tech/Prod; Technology	
Students will understand and practice CAD techniques.	MDPSM 21.2	ST-ET.1	RST. 11-12.3	MP 4	B4; E4	2	Tech/Prod; Technology	

Course Information	
Course Name	INTRODUCTION TO CABINETMAKING 1A/1B
Course Number	CTEC311/312
Grade(s)	10-12
Length	Two Semesters
Credit	1
Prerequisites	Woods and Advanced Woods
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Woods
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	National Center for Construction Education and Research (NCCER)
Names/Numbers of Occupational Standards	National Center for Construction Education and Research (NCCER)
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Introduction to Cabinetmaking 1A/1B</i> is an introduction to the materials, tools, and methods used in the cabinetmaking industry. Production techniques and modern hardware will be used as the student fabricates products in order to learn production and installation methods. Standard upper and base cabinetry as well as custom casework, fixtures, and furniture products often requested by clients will be included.
Instructional Topic Headings (please separate each heading by a semi-colon)	Careers; Design; Materials; Production Tools; Joints; Types of Construction; Assembly Methods; Sanding & Finishing; Laminates; Countertops; Production
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will use stationary power tools to make joints commonly used by cabinetmakers.	NCCER 27501-03.4	AC-CST 9	RST. 11-12.9	MP 5	C4	2	Tech/Prod	Discussion; Quiz; Activity; Project
Students will safely use portable power equipment to make joints and prepare cabinets.	NCCER 00103	AC-CST 9	RST. 11-12.9	MP 5	B2	1-2	Tech/Prod; Health/Safety	Discussion; Quiz; Activity; Project
Students will build a cabinet from a set of drawings.	NCCER 27501-03.6	AC-CST 8	RST. 11-12.10	MP 6	B2	2	Tech/Prod	Discussion; Quiz; Activity; Project
Students will install plastic laminate on a countertop core.	NCCER 27501-03.7	AC-SCT 8	RST. 11-12.10	MP 6	B2	2	Tech/Prod	Discussion; Quiz; Activity; Project
Students will recognize the common types of woods used to make cabinets.	NCCER 27501-03.1	AC-DES 8	RST. 11-12.10	MP 2	B1	2	Tech/Prod	Discussion; Quiz; Activity; Project
Students will assemble cabinet components.	NCCER 27501, 27211	AC-CST 8	RST. 11-12.10	MP 6	B2	2	Tech/Prod	Discussion; Quiz; Activity; Project
Students will assemble drawer and door components.	NCCER 27501, 27211	AC-CST 8	RST. 11-12.10	MP 6	B2	2	Tech/Prod	Discussion; Quiz; Activity; Project
Students will install moldings.	NCCER 27501, 27211	AC-CST 8	RST. 11-12.10	MP 6	B2	2	Tech/Prod	Discussion; Quiz; Activity; Project
Students will select and use various finishing abrasives.	NCCER 27501	AC-CST 9	RST. 11-12.9	MP 2	B2	2	Tech/Prod	Discussion; Quiz; Activity; Project
Students will prepare wood surfaces for finishes.	NCCER 27501	AC-CST 8	RST. 11-12.9	MP 1	B1	5-6	Tech/Prod	Discussion; Quiz; Activity; Project
Students will demonstrate knowledge of joinery construction and fastening methods.	NCCER 27501, 27211	AC-CST 8	RST. 11-12.9	MP 1	B3	4-6	Tech/Prod	Discussion; Quiz; Activity; Project

Course Information	
Course Name	METALWORKING 1A
Course Number	CTEC4011
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	None
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Welding
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	National Institute for Metalworking Skills; Metalworking Skills Standards; Science and Boreal Laboratories; Precision Metalforming Association (PMS) www.pma.org
Names/Numbers of Occupational Standards	American Welding Society (AWS)
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Metalworking 1A</i> is an introductory course that will cover the history of metals, importance to mankind, basic metalworking techniques, and employment opportunities in the metalworking industry. Important aspects of the metalworking industry are studied from a career exploration perspective. The periodic table will be studied from a metals standpoint. Studies will include the safe use of hand and power tools, metals (i.e., production, types, identification, usage), reading and interpreting drawings, and accurate project layout. Students will fabricate small projects using cutting, bending, and assembly tools and processes. Sheet metal tools and techniques will also be covered. Students will develop patterns, layout sheet metal projects, and cut, bend, and assemble them.
Instructional Topic Headings (please separate each heading by a semi-colon)	Classifying Metals; Measurement; Safety Practices; Technology & Careers in Metalworking; Soldering; Heat Treatment of Metals; Layout Work; Hand Tools/Cutting Tools; Fasteners; Grinding; Drills & Drilling Machines; Sawing & Cutoff Machines; Sheet Metal; Metal Finishes; Metals Research; Metals Manufacturing/Projects
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	Fundamentals of Metal Fabrication Certification, Fabricators and Manufacturers Association International

Course Addresses	http://www.fmanet.org/training/certificate-courses/fundamentals-of-metal-fabrication-certificate
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Eric Olsen, Mike Nelson
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will understand how welding and fabrication careers fit within the welding and metalworking industry.	AWS 1.2.1, 2.1, 2.4.3, 3.2.1.1; PMA 6	AC-CST 1	RST. 11-12.10	MP 4-5	B4	10	Labor	Discussion After Field Trips & Career Fairs; Construction Academies
Students will use hand and power tools safely.	AWS 2.4.2, 3.2.1.1-5, 3.3.1; PMA 4-5	AC-CST 9	SL 11-12.4	MP 5	B4	11	Technology	ID Quizzes; Safety Tests
Students will follow written and verbal directions.	AWS 2.3.1, 3.2.1.1, 3.3.1; PMA 1	AC-DES 2	RST. 11-12. 3, 10	MP 6	B4	8	Work Habits; Tech/Prod	Projects
Students will create accurate layouts and read simple technical drawings.	AWS 2.3.2, 3.2.1.2, 3.3.2; PMA 1	AC-DES 6-7	SL.11-12.4	MP 1, 6	B4	4, 8, 11	Technology	Projects
Students will identify, select, and use metals/materials for projects.	AWS 3.3.2 #3; PMA 8.2	AC-DES 1	RST. 11-12.3	MP 5	B4	2, 8	Tech/Prod	Worksheets; Quizzes; Projects
Students will develop and demonstrate understanding of terms used in the metalworking industry.	SkillsUSA CPS 3.0	AC 1	SL. 11-12.4	MP 4-5	B4	4	Technology	Worksheets; Projects

Course Information	
Course Name	METALWORKING 1B
Course Number	CTEC4022
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	Metalworking 1A
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Welding
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	National Institute for Metalworking Skills; Metalworking Skills Standards; Science and Boreal Laboratories; Precision Metalforming Association (PMA) www.pma.org
Names/Numbers of Occupational Standards	American Welding Society (AWS)
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Metalworking 1B</i> is an introductory course that will cover the history of metals, importance to mankind, basic metalworking techniques, and employment opportunities in the metalworking industry. Important aspects of the metalworking industry are studied from a career exploration perspective. The periodic table will be studied from a metals standpoint. Studies will include the safe use of hand and power tools, metals (i.e., production, types, identification, usage), reading and interpreting drawings, and accurate project layout. Students will fabricate small projects using cutting, bending, and assembly tools and processes. Sheet metal tools and techniques will also be covered. Students will develop patterns, layout sheet metal projects, and cut, bend, and assemble them. <i>Metalworking 1B</i> continues with sheet metal fabrication and introduces soldering, Shielded Metal Arc Welding (Stick), and oxy-fuel cutting.
Instructional Topic Headings (please separate each heading by a semi-colon)	Classifying Metals; Measurement; Safety Practices; Technology & Careers in Metalworking; Soldering; Heat Treatment of Metals; Layout Work; Hand Tools/Cutting Tools; Fasteners; Grinding; Drills & Drilling Machines; Sawing and Cutoff Machines; Sheet Metal; Metal Finishes; Metals Research; Metals Manufacturing/Projects
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	Fundamentals of Metal Fabrication Certification, Fabricators and Manufacturers Association International
Course Addresses	http://www.fmanet.org/training/certificate-courses/fundamentals-of-metal-fabrication-certificate
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes

Employability Standards	
Source of Employability Standards	Alaska
Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Eric Olsen, Mike Nelson
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will understand how welding and fabrication careers fit within the welding and metalworking industry.	AWS 1.2.1, 2.1, 2.4.3, 3.2.1.1; PMA 6	AC-CST 1	RST. 11-12.10	MP 4-5	B4	10	Labor	Discussion After Field Trips & Career Fairs; Construction Academies
Students will use hand and power tools safely.	AWS 2.4.2, 3.2.1.1-5, 3.3.1; PMA 4-5	AC-CST 9	SL.11-12.4	MP 5	B4	11	Technology	ID Quizzes; Safety Tests
Students will follow written and verbal directions.	AWS 2.3.1, 3.2.1.1, 3.3.1; PMA 1	AC-DES 2	RST. 11-12.3, 10	MP 6	B4	8	Work Habits; Tech/Prod	Projects
Students will create accurate layouts and read simple technical drawings.	AWS 2.3.2, 3.2.1.2, 3.3.2; PMA 1	AC-DES 6-7	SL.11-12.4	MP 1, 6	B4	4, 8, 11	Technology	Projects
Students will identify, select, and use metals/materials for projects.	AWS 3.3.2 #3; PMA 8.2	AC-DES 1	RST. 11-12.3	MP 5	B4	2, 8	Tech/Prod	Worksheets; Quizzes; Projects
Students will develop and demonstrate understanding of terms used in the metalworking industry.	SkillsUSA CPS 3.0	AC 1	SL.11-12.4	MP 4-5	B4	4	Technology	Worksheets; Projects

Course Information	
Course Name	TOOLS OF TECHNOLOGY & TRADES
Course Number	
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	None
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Woods, Carpentry, Construction Trades
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	Engineering
Occupational Standards	
Source of Occupational Standards	National Center for Construction Education and Research (NCCER)
Names/Numbers of Occupational Standards	NCCER CORE
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Tools of Technical Trades</i> is designed to introduce students to the common hand and power tools used throughout the world of technology and building trades. This is a hands-on course which will equip students with the knowledge and confidence necessary for building projects using wood, metals, and electronics. Individual and group projects will hone craft skills and help prepare students for future challenges in the construction industry. Students will explore the strengths and weaknesses of various joinery and fastening systems, determining which choices to make based upon sound engineering principles. Students will learn the components of a project plan, determine materials, and figure out cost estimates. This course may serve as a prerequisite to <i>Advanced Woods</i> and count as an elective credit toward an endorsement with Lathrop High School's Engineering Academy.
Instructional Topic Headings (please separate each heading by a semi-colon)	Introduction to Shop Safety; Hand Tools & Power Tools Used for Cutting and Shaping Wood; Tools & Methods of Measurements; The Process & Components of Making a Plan or Drawing; Basic Milling & Fabrication of Materials; Joinery Systems & the Use of Fasteners; Hand & Power Tools for Cutting & Bending Metals; Basic Electronics
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	N/A
Course Addresses	Wood, Carpentry & Construction Trades
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Robert Rouse, Guy Zody
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will develop and demonstrate understanding of safety skills and producers used in the construction industry.	NCCER Core Module 00101-04	AC 3	W.9-10.8	MP 5-6	B4	1	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz
Students will demonstrate the safe use of basic hand and power tools.	NCCER Core Module 00101-04	AC-CST 9	RST. 11-12.10	MP 5	B4	2	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz
Students will understand the application of tools and analyze which tool is best for a designated task.	NCCER Wood Bldg Mtls 27102-01; Core Hand Tools 00103; Pwr Tools 00104	AC-CST 9	RST. 11-12.10	MP 5-6	B4	2	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz
Students will identify, select, and use appropriate tools for a designated task.	NCCER Wood Bldg Mtls 27102-01; Core Hand Tools 00103; Pwr Tools 00104	AC-CST 9	RST. 11-12.10	MP 5-6	B4	2	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz
Students will determine the best choice for joints and fasteners, based upon their strengths and weaknesses.	NCCER 27212	AC-CST 7	RST. 11-12.10	MP 5-6	B4	5	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz
Students will learn to read basic design plans.	NCCER Core Module 00105-04	AC 6	RI.9-10.1, 3-4, 7; RST. 11-12.1-2, 4-5, 9-10 WHST. 11-12.4, 9-10	MP 1	B4	2	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz
Students will complete various products assigned by the instructor that will demonstrate the ability to fasten stock using various basic methods (e.g., nails, staples, screws, wood glue, clamps).	NCCER Wood Bldg Mtls 27102-01; Core Hand Tools 00103; Pwr Tools 00104	AC 2	RST. 11-12.10	MP 1-2, 6-7	B4	2	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz
Students will develop a basic plan for a simple project.	NCCER 27211 C & F; MDPSM 5.3	AC 6	RST. 11-12.1-2, 4-5, 9-10 WHST. 11-12.4, 9-10 L.11-12. 2-3, 6	MP 1-2, 6-7	B4	2	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will understand basic electronics and simple wiring schematics.	SkillsUSA ECW.1.0-2.0	AC-MO 5	RST. 11-12.1-2, 4-5, 9-10 WHST. 11-12.4, 9-10 L.11-12. 2-3, 6	MP 1-2, 6-7	B4	2	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz
Students will construct an electric motor using simple parts.	SkillsUSA ECW.1.0-2.0	AC-MO 3	RST. 11-12.10	MP 1-2, 6-7	B4	2	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz
Students will construct moving parts on mechanical devices.	SkillsUSA ECW.1.0-2.0	AC-MO 3	RST. 11-12.10	MP 1-2, 6-7	B4	2	Tech/Prod; Health/Safety	Discussion; Activity; Project; Quiz

Course Information	
Course Name	WELDING 1A
Course Number	CTEC501
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	None
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Welding
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	Welding
Occupational Standards	
Source of Occupational Standards	American Welding Society (AWS) National Center of Construction Education and Research (NCCER)
Names/Numbers of Occupational Standards	AWS Sense Program NCCER Core
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Welding 1A</i> will follow the guidelines set forth by the American Welding Society for entry-level welder. Throughout the course, safety will be a primary consideration as the students gain basic knowledge of shielded metal arc welding, oxyacetylene welding and cutting, plasma cutting, and electrical tools and equipment. The students will also be introduced to basic shop drawings, welding symbols, and basic visual inspection of welds.
Instructional Topic Headings (please separate each heading by a semi-colon)	Welding Safety; Oxy Acetylene Welding (OAW) Process; Oxy Acetylene Cutting (OAC) Process; Plasma Arc Cutting (PAC) Process; Shielded Metal Arc Welding (SMAW) Process; Equipment, Tools, Base & Filler Metal Identification & Selection; Basic Print Reading; Metallurgy; Career Employability Information
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	AWS Guided Bend Test; NCCER Performance Tasks
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	Yes
Date of Current Agreement	January 2016
Postsecondary Institution Name	UAF Community & Technical College
Postsecondary Course Name	Welding I
Postsecondary Course Number	WMT F103
Number of Postsecondary Credits	3 credits with <i>Welding 1A and 1B</i>
Author	
Course Developed By	Pete Daley
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2016
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will demonstrate safe shop procedures in all welding procedures and shop work.	AWS 3.2.1.1	AC 2-6	SL.9-12.1	MP 5-6	A1, 4; B3-4; C3; D6	1-5, 9, 12	Health/Safety; Tech/Prod	Safety Tests
Students will utilize safe and efficient use of tools and equipment and perform housekeeping duties.	AWS 3.2.1.1	AC 2-3, 5	SL.9-12.1	MP 5-6	A1, 4; B3-4; C3; D6	1-5, 9, 12	Health/Safety; Tech/Prod; Work Habits	Safety Tests
Students will utilize measurements and measuring devices to perform layout and fit-up procedures.	AWS II 3.2.1.2	AC 2, 5-6	WHST. 9-12.2	MP 5-6	B4	2, 4, 8	Tech/Prod	Worksheets; Quizzes; Projects
Students will understand basic print reading and interpret welding symbols.	AWS 3.2.1.2	AC 1-6	RST. 9-12.4	MP 6	A3; B3-4	2, 4, 8	Tech/Prod	Worksheets; Quizzes; Projects
Students will identify metal properties and the metallurgy of a weld bead.	AWS II 3.2.1.4	AC 2, 4, 6	RST. 9-12.3	MP 5	B3-4	2, 8	Tech/Prod	Worksheets; Discussion
Students will understand and develop skills in safe and basic use of Welding/Cutting equipment (i.e., OAW, OAC).	AWS 3.2.1.4	AC 2-6	SL.9-12.1	MP 5-6	B2	2, 5, 8, 11	Tech/Prod	Worksheets; Quizzes; Projects; Tests
Students will understand and develop skills in safe and proficient use of Shielded Metal Arc Welding (SMAW) in F1 and F2 positions.	AWS 3.2.1.3	AC 2-6	SL.9-12.1	MP 5-6	B2	2, 5, 8, 11	Health/Safety; Tech/Prod	Worksheets; Quizzes; Projects; Tests
Students will understand and develop skills in safe and proficient use of Plasma Arc Cutting (PAC) equipment.	AWS 3.2.1.5	AC 2-6	SL.9-12.1	MP 5-6	B2	2, 5, 8, 11	Health/Safety; Tech/Prod	Worksheets; Quizzes; Projects; Tests
Students will investigate careers and employability related to welding.	AWS 3.2.1.1	AC 2-7	SL.9-12.1	MP 4	A7; B3; C2, 4; D6; E8	1-12	Planning; Community	Discussion; Research Paper

Course Information	
Course Name	WELDING 1B
Course Number	CTEC5022
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	Welding 1A
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Welding
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	American Welding Society (AWS) National Center of Construction Education and Research (NCCER)
Names/Numbers of Occupational Standards	AWS Sense NCCER Core
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Welding 1B is a continuation of Welding 1A and will follow the guidelines set forth by the American Welding Society for entry-level welder. Throughout the course, safety will be a primary consideration when students continue to use the Shielded Metal Arc Welding, oxyacetylene welding and cutting, plasma cutting, and electrical equipment. The students will also learn to read shop drawings, welding symbols, and advanced visual inspection of welds. The students will also learn the basics of the Gas Metal Arc Welding process.
Instructional Topic Headings (please separate each heading by a semi-colon)	Welding Safety; Oxy Acetylene Welding (OAW); Oxy Acetylene Cutting (OAC); Plasma; Print Reading; Metallurgy; Tools; Equipment; Shielded Metal Arc Welding (SMAW); Gas Metal Arc Welding (GMAW); Base & Filler Metal Identification & Selection; Career Employability Information
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	AWS Guided Bend Test & NCCER Performance Tests
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	Yes
Date of Current Agreement	January 2016
Postsecondary Institution Name	UAF Community & Technical College
Postsecondary Course Name	Welding I
Postsecondary Course Number	WMT F103
Number of Postsecondary Credits	3 credits with <i>Welding 1A</i> and <i>1B</i>
Author	
Course Developed By	Pete Daley
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will demonstrate safe shop procedures in all welding procedures and shop work.	AWS 3.2.1.1	AC 2-6	SL.9-12.1	MP 5-6	A1, 4; B3-4; C3; D6	1-5, 9, 12	Health/Safety; Tech/Prod	Safety Tests
Students will utilize safe and efficient use of tools and equipment and perform housekeeping duties.	AWS 3.2.1.1	AC 2-3, 5	SL.9-12.1	MP 5-6	A1, 4; B3-4; C3; D6	1-5, 9, 12	Health/Safety; Tech/Prod; Work Habits	Safety Tests
Students will utilize measurements and measuring devices to perform layout and fit-up procedures.	AWS II 3.2.1.2	AC 2, 5-6	WHST. 9-12.2	MP 5-6	B4	2, 4, 8	Tech/Prod	Worksheets; Quizzes; Projects
Students will understand basic print reading and interpret welding symbols.	AWS 3.2.1.2	AC 1-6	RST. 9-12.4	MP 6	A3; B3-4	2, 4, 8	Tech/Prod	Worksheets; Quizzes; Projects
Students will identify metal properties and the metallurgy of a weld bead and properly select the appropriate filler metal.	AWS II 3.2.1.4	AC 2, 4, 6	RST. 9-12.3	MP 5	B3-4	2, 8	Tech/Prod	Worksheets; Discussion
Students will understand and develop skills in safe and proficient use of Shielded Metal Arc Welding (SMAW) in F1-F3 and G1-G3 positions.	AWS 3.2.1.3	AC 2-6	SL.9-12.1	MP 5-6	B2	2, 5, 8, 11	Tech/Prod	Worksheets; Quizzes; Projects; Tests
Students will understand and develop skills in safe and proficient use of Oxyacetylene Welding (OAW) in the F3 position.	AWS 3.2.1.4	AC 2-6	SL.9-12.1	MP 5-6	B2	2, 5, 8, 11	Health/Safety; Tech/Prod	Worksheets; Quizzes; Projects; Tests
Students will demonstrate Gas Metal Arc Welding (GMAW).	AWS 3.2.1.3.2	AC 2-6	SL.9-12.1	MP 5-6	B2	2, 5, 8, 11	Tech/Prod	Worksheets; Quizzes; Projects; Tests
Students will understand basic electrical principles as applied to the welding processes.		AC 2-6	SL.9-12.1	MP 5-6	B4	2, 5, 8, 11	Tech/Prod	Worksheets; Quizzes; Projects; Tests
Students will demonstrate awareness of career employability.	AWS 3.2.1.1	AC 2-7	SL.9-12.1	MP 4	B2, 4	1-12	Planning	Discussion; Research Paper

Course Information	
Course Name	WELDING 2A
Course Number	CTEC5033
Grade(s)	10-12
Length	One Semester
Credit	0.5
Prerequisites	Welding 1A/1B
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Welding
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	American Welding Society (AWS) National Center of Construction Education and Research (NCCER)
Names/Numbers of Occupational Standards	AWS Sense NCCER Core
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Welding 2A is a continuation of Welding 1B and will follow the guidelines set forth by the American Welding Society for the entry-level welder. Throughout the course, safety will be a primary consideration when students continue to use Shielded Metal Arc Welding, oxyacetylene welding and cutting, plasma cutting, gas metal arc welding, flux cored arc welding, gas tungsten arc welding, and related electrical equipment. The students will also learn to read shop drawings, welding symbols, and the advanced visual inspection of welds.
Instructional Topic Headings (please separate each heading by a semi-colon)	Welding Safety; Oxy Acetylene Welding (OAW) Process; Oxy Acetylene Cutting (OAC) Process; Gas Metal Arc Welding (GMAW) Process; Flux-Cored Arc Welding (FCAW) Process; Gas Tungsten Arc Welding (GTAW) Process; Shielded Metal Arc Welding (SMAW) Process; Plasma Arc Cutting (PAC) Process; Print Reading; Metallurgy; Tools; Equipment; Base & Filler Metal Identification and Selection; Career Employability Information
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	AWS Guided Bend Test; NCCER Performance Tests
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Pete Daley
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will demonstrate safe shop procedures in all welding procedures and shop work.	AWS 3.2.1.1	AC 2-5	RST. 11-12.10	MP 5-6	A1, 4; B3-4; C3; D6	1-5, 8-9, 12	Health/Safety; Tech/Prod	Safety Tests
Students will utilize safe and efficient use of tools and equipment.	AWS 3.2.1.1	AC 2-5	RST. 11-12.10	MP 5-6	A1, 4; B3-4; C3; D6	1-5, 8-9, 12	Health/Safety; Tech/Prod	Safety Tests
Students will demonstrate project fabrication utilizing the various welding techniques and layout procedures.	AWS II 3.2.1.2	AC 1-6	RST. 11-12.7	MP 4-6	B4	2, 4, 8	Tech/Prod	Worksheets; Projects
Students will effectively understand and apply advanced print reading skills.	AWS 3.2.1.2	AC 1-6	RST. 11-12.7	MP 1	A3; B3-4	2, 4, 8	Tech/Prod	Worksheets
Students will identify metal properties and the metallurgy of a weld bead.	AWS II 3.2.1.4	AC 2, 6	RST. 11-12.9	MP 5	B3-4	2, 4, 8	Tech/Prod	Worksheets; Discussion
Students will understand and increase skills in safe and proficient use of Shielded Metal Arc Welding (SMAW) in F1-F4 and G1-G4 positions.	AWS 3.2.1.3	AC 1-6	RST. 11-12.9	MP 5-6	B2	2, 4, 8	Health/Safety; Tech/Prod	Worksheets; Projects; Quizzes; Tests
Students will demonstrate advanced use of Gas Metal Arc Welding (GMAW) and Flux-Cored Arc Welding (FCAW) in F1-F4 and G1-G4 positions.	AWS 3.2.1.3.2	AC 1-6	RST. 11-12.9	MP 5-6	B2	2, 4, 8	Tech/Prod	Worksheets; Projects; Quizzes; Tests
Students will develop Gas Tungsten Arc Welding (GTAW) procedures.	AWS 3.2.1.3.4	AC 1-6	RST. 11-12.10	MP 1	B2	2, 4, 8	Planning; Management; Tech/Prod	Worksheets; Projects; Quizzes; Tests
Students will understand advanced electrical principles as applied to the welding processes.	AWS 3.2.1.3.4	AC 1-3, 5-6	RST. 11-12.3	MP 1, 5-6	B2	2, 4, 8	Tech/Prod	Worksheets; Discussion
Students will demonstrate awareness of career employability.	AWS 3.2.1.1	AC 1, 4-5, 7	RST. 11-12.4	MP 2	A7; B3; C2, 4; D6; E8	1-2, 4-5, 7-12	Planning; Community	Discussion; Research Paper

Course Information	
Course Name	WELDING 2B
Course Number	CTEC5044
Grade(s)	10-12
Length	One Semester
Credit	0.5
Prerequisites	Welding 2A
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Welding
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	American Welding Society (AWS) National Center of Construction Education and Research (NCCER)
Names/Numbers of Occupational Standards	AWS Sense NCCER Core
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Welding 2B is a continuation of Welding 2A and will follow the guidelines set forth by the American Welding Society for the entry-level welder. Throughout the course, safety will be a primary consideration when students continue to use Shielded Metal Arc Welding, Oxy Acetylene Welding and Cutting, Plasma Cutting, Gas Metal Arc Welding, Flux-Cored Arc Welding, Gas Tungsten Arc Welding, and related electrical equipment. The students will also learn to read shop drawings, welding symbols, and the advanced visual inspection of welds.
Instructional Topic Headings (please separate each heading by a semi-colon)	Welding Safety; Oxy Acetylene Welding (OAW) Process; Oxy Acetylene Cutting (OAC) Process; Gas Metal Arc Welding (GMAW) Process; Flux-Cored Arc Welding (FCAW) Process; Gas Tungsten Arc Welding (GTAW) Process; Shielded Metal Arc Welding (SMAW) Process; Plasma Arc Cutting (PAC) Process; Print Reading; Metallurgy; Tools; Equipment; Base & Filler Metal Identification and Selection; Career Employability Information
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	AWS Guided Bend Test; NCCER Performance Test
Course Addresses	
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Pete Daley
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will demonstrate safe shop procedures in all welding procedures and shop work.	AWS 3.2.1.1	AC 2-5	RST. 11-12.10	MP 5-6	A1, 4; B3-4; C3; D6	1-5, 8-9, 12	Health/Safety; Tech/Prod	Safety Tests
Students will utilize safe and efficient use of tools and equipment.	AWS 3.2.1.1	AC 2-5	RST. 11-12.10	MP 5-6	A1, 4; B3-4; C3; D6	1-5, 8-9, 12	Health/Safety; Tech/Prod	Safety Tests
Students will demonstrate project fabrication utilizing the various welding techniques and layout procedures.	AWS II 3.2.1.2	AC 1-6	RST. 11-12.7	MP 4-6	B4	2, 4, 8	Tech/Prod	Worksheets; Projects
Students will effectively understand and apply advanced print reading skills.	AWS 3.2.1.2	AC 1-6	RST. 11-12.7	MP 1	A3; B-4	2, 4, 8	Tech/Prod	Worksheets
Students will identify metal properties and the metallurgy of a weld bead.	AWS II 3.2.1.4	AC 2, 6	RST. 11-12.9	MP 5	B3-4	2, 4, 8	Tech/Prod	Worksheets; Discussion
Students will understand and increase skills in safe and proficient use of Shielded Metal Arc Welding (SMAW) in F1-F4 and G1-G4 positions.	AWS 3.2.1.3	AC 1-6	RST. 11-12.9	MP 5-6	B2	2, 4, 8	Health/Safety; Tech/Prod	Worksheets; Projects; Quizzes; Tests
Students will demonstrate advanced use of Gas Metal Arc Welding (GMAW) and Flux-Cored Arc Welding (FCAW) in F1-F4 and G1-G4 positions.	AWS 3.2.1.3.2	AC 1-6	RST. 11-12.9	MP 5-6	B2	2, 4, 8	Tech/Prod	Worksheets; Projects; Quizzes; Tests
Students will develop Gas Tungsten Arc Welding (GTAW) procedures on aluminum, carbon steel, and stainless steel in the F1-F4 positions.	AWS 3.2.1.3.4	AC 1-6	RST. 11-12.10	MP 1	B2	2, 4, 8	Planning; Management; Tech/Prod	Worksheets; Projects; Quizzes; Tests
Students will understand advanced electrical principles as applied to the welding processes.	AWS 3.2.1.3.4	AC 1-3, 5-6	RST. 11-12.3	MP 1, 5-6	B2	2, 4, 8	Tech/Prod	Worksheets; Discussion
Students will demonstrate awareness of career employability.	AWS 3.2.1.1	AC 1, 4-5, 7	RST. 11-12.4	MP 2	A7; B3; C2, 4; D6; E8	1-2, 4-5, 7-12	Planning; Community	Discussion; Research Paper

Course Information	
Course Name	WOODS
Course Number	CTEC201
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	None
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Woods
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA
Occupational Standards	
Source of Occupational Standards	SkillsUSA National Center of Construction Education and Research (NCCER)
Names/Numbers of Occupational Standards	SkillsUSA Technical Standards Book (TSB) NCCER CORE
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	Woods is an introduction to modern day woodworking. Students will acquire a fundamental knowledge in the safe use of hand tools, power equipment, and woodworking procedures. Students will plan, design, select materials, layout, cut, assemble, and finish projects approved by the instructor. Students' projects will increase in difficulty as the semester progresses.
Instructional Topic Headings (please separate each heading by a semi-colon)	Safety; Wood Characteristics & Selection; Cutting; Fastening
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	N/A
Course Addresses	N/A
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Pete Daley, Joe Deutsch, Steve Ratzlaff, Robert Rouse, Guy Zody
Course Adapted From	FNSBSD Career & Technical Education Curriculum
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will develop and demonstrate an understanding of terms commonly used in the industry.	SkillsUSA AD 1.0, 1.1, 2.4	AC 1, 6; AC-DES 2	RST. 11-12.3-4	MP 5-6	B2-3	2, 4	Tech/Prod	Test or Quiz; Student Product
Students will understand how woodworking and carpentry careers fit within all aspects of the construction trades industry.	NCCER Orientation to Trade-27101; SkillsUSA TSB p.107, Total Qlty Mngmt	AC 4-5, 7; AC-CST 1	RST. 11-12.4, 9	MP 5-6	E8	1, 4, 7, 10	All Aspects	Student Product
Students will demonstrate the safe use of tools, woodworking machines, and equipment.	NCCER CORE Basic Safety-00101; SkillsUSA TSB p.41, Occ. Hlth/ Safety	AC-CST 5, 9	SL.11-12.4	MP 5	B3-4	1-3	Health/Safety	Student Product
Students will demonstrate safe shop procedures when handling materials and working with others.	NCCER CORE Basic Safety-00101; SkillsUSA TSB p.41, Occ. Hlth/Safety	AC 3; AC-CST 5	RST. 11-12.3-4	MP 5-6	B4	1-5, 9, 12	Health/Safety	Student Product
Students will describe wood characteristics and lumber and wood product production.	NCCER Wood Bldg Mtls 27102-01	AC 4-5, 7; AC-CST 1	SL.11-12.4; WHST 11-12.2D, 4, 8	MP 3, 6	A4	2	Tech/Prod; Health/Safety	Student Product
Students will identify, select, and use appropriate materials and techniques in woodworking.	NCCER Wood Bldg Mtls 27102-01; NCCER CORE Hand Tools 00103 Pwr Tools 00104	AC 2; AC-CST 8; AC-DES 8	RST. 11-12.2-4	MP 5-8	A2; D5	2	Tech/Prod; Health/Safety	Student Product
Students will identify and use various types of measuring devices used in woodworking.	NCCER CORE Hand Tools 00103	AC 2; AC-CST 8	RST. 11-12.2-4	MP 5-6	A2; D5	2	Tech/Prod; Health/Safety	Student Product
Students will perform mathematical calculations required for tools and processes.	NCCER CORE Intro. to Construction Math 00102	AC 1-2	RST. 11-12.4	MP 5-6	B4	2	Tech/Prod	Student Product

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will demonstrate proper techniques for cutting, forming, shaping, and sanding wood materials.	NCCER Wood Bldg Mtls 27102-01; NCCER CORE Hand Tools 00103 Pwr Tools 00104	AC 2; AC-CST 8-9; AC-DES 6, 8	RST. 11-12.2-4	MP 1, 6	A2; D5	2	Tech/Prod; Health/Safety	Student Product
Students will complete products that demonstrate proficiency in assembling and fastening stock with various basic methods (e.g., nails, staples, screws, adhesives, clamps).	NCCER Wood Bldg Mtls 27102-01; NCCER CORE Hand Tools 00103 Pwr Tools 00104	AC 2, 6; AC-CST 8-9; AC-DES 6, 8	SL.11- 12.4; RST. 11-12. 9-10	MP 1, 4-8	A2; B3-4; D5; E8	2	All Aspects	Student Product

Course Information	
Course Name	WOODS, ADVANCED
Course Number	
Grade(s)	9-12
Length	One Semester
Credit	0.5
Prerequisites	Woods
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the system.)	Architecture & Construction
Date of District Course Revision	2016
Career & Technical Student Organization (CTSO)	
CTSO Embedded in this Sequence	SkillsUSA, National Center for Construction Education & Research (NCCER)
Occupational Standards	
Source of Occupational Standards	SkillsUSA National Center for Construction Education & Research (NCCER)
Names/Numbers of Occupational Standards	SkillsUSA: National Center for Construction Education & Research (NCCER)
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	<i>Advanced Woods</i> is for students who have completed the first course of woodworking. It will aid students interested in the fundamentals of materials, tools, machines, and processes used in building furniture and cabinets. The skills learned in <i>Advanced Woods</i> will help prepare students to be cabinetmakers or finish carpenters. It will also provide experience in using different woods and developing more advanced techniques to build and assemble projects.
Instructional Topic Headings (please separate each heading by a semi-colon)	Design Aspects, Squaring, Adhsives, Joining
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	N/A
Course Addresses	Yes
Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Career Ready Practices	Yes
Employability Standards	
Source of Employability Standards	Alaska

Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	N/A
Postsecondary Institution Name	N/A
Postsecondary Course Name	N/A
Postsecondary Course Number	N/A
Number of Postsecondary Credits	N/A
Author	
Course Developed By	Rex LeGrand
Course Adapted From	FNSBSD Career & Technical Education
Date of Previous Course Revision	June 5, 2012
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will understand how woods and carpentry careers relate to the construction trades industry.	NCCER Orientation to Trade 27101; SkillsUSA-Technical Standards Book p.107 Total Quality Mngmt.		R 4.1-3, 7; W 4.2		C4		Planning	Test or Quiz; Student Product
Students will know and follow shop safety rules and practices.	NCCER Core Basic Safety 00101; SkillsUSA Technical Standards Book p.41 Occ. Health & Safety		R 4.1, 4.2, 4.4		B3		Health/Safety	Student Product
Students will demonstrate job search techniques.	NCCER Orientation to Trade 27101; Tools for Success p.203		R 4.4, 4.7; W 4.2		C4		Labor	Student Product
Students will identify, safely use, and maintain tools and equipment.	NCCER Core Hand Tools 00103; Power Tools 00104		R 4.1, 4.2, 4.4				Technology	Student Product
Students will identify types of materials commonly used in wood products and construction.	NCCER Wood Building Materials 27102-01; Core Hand Tools 00103; Power Tools 00104		R 4.1, 4.2, 4.7		A2; D5		Tech/Prod; Health/Safety	Student Product
Students will compute appropriate mathematical functions related to the design, cost estimating and construction of a simple wood product.	NCCER Core Introduction to Construction Math 00102				B1-2		Tech/Prod	Student Product
Students will plan product layout using selected style.	NCCER 27211 C & F; MDPSM 5.3				B2		Planning; Management; Tech/Prod; Technology	Student Product

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standards	Common Technical Core Standards	Alaska ENG/LA Standards	Alaska Math Standards	Alaska Cultural Standards	Career Ready Practices	All Aspects of Industry	Formative Assessments
Students will demonstrate proper stock squaring methods.	NCCER Practice Exercises & Projects				B2		Management	Student Product
Students will identify adhesives and know their best uses.	NCCER 27212		R 4.7		B2, 4		Health/Safety	Student Product
Students will demonstrate proper use of a surface planer.	NCCER 27501, 3.8.0				B1		Tech/Prod	Student Product
Students will demonstrate proper gluing and clamping methods for edge and face joints.	NCCER 27501, 5.0.0, 7.2.0				B2		Tech/Prod	Student Product
Students will identify, set up, and use proper router bits, pattern routing, and edge profiling.	NCCER 27501, 3.6.0				B2		Tech/Prod	Student Product
Students will identify and fabricate basic wood joints.	NCCER 27501, 4.0.0				B1-2		Tech/Prod	Student Product
Students will build and complete products as assigned or designed by the student with the instructor's approval.	NCCER Core Basic Safety 00101; SkillsUSA Technical Standards Book p.41 Occ. Health & Safety		R4.4, 4.6, SD.6		B1-4		Tech/Prod; Work Habits	Test or Quiz; Student Product