

## CTE Course Description and Standards Crosswalk

### Course Information

Course Name	Architectural Drafting 4
Course Number	86080
Number of High School Credits	.5
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the EED-CTE system.)	Architect, Carpenter,
Date of district Course Revision	September 2014

### Career & Technical Student Organization (CTSO)

CTSO embedded in this sequence	SkillsUSA
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### Occupational Standards

Source of Occupational Standards	United States National CAD Standards Version#6 (NCS) / SkillsUSA
Names/Numbers of Occupational Standards	Architectural Drafting (AD) 1 - 12

### Registration Information

Course Description (brief paragraph – as shown in your student handbook or course list)	Architectural Drafting 4 is designed to teach students residential and commercial applications and to take students farther in advanced individual design problems. Students will develop projects in 3D modeling in commercial applications. Problems students will work on are provided by the Women in Construction, American Institute of Architecture, and SkillsUSA. Students who are interested in careers in construction; for example, architects, computer-aided drafters, surveyors, planners and designers would benefit from this course.
Instructional Topic Headings (please separate each heading by a semi-colon)	Design and Planning for Residential and Commercial Structures; Commercial Area Planning; Advanced Architectural Practices and Techniques; Load and Structure; Technical and Specialty Architectural Plan; Advanced AutoCAD Applications; School to Work Internships; Participation in Professional Organization; Encourage Career and Technical Student Organization (CTSO) Involvement

### Summative Assessments and Standards

Technical Skills Assessment (TSA)	SkillsUSA
Course addresses:	Architectural Drafting
New Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Employability Standards	Yes

### Employability Standards

Source of Employability Standards	State of Alaska
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### Tech Prep

Current Tech Prep Articulation Agreement? (Y/N)	Yes – With Arc Drafting 3
Date of Current Agreement	12/2014

**DISTRICT NAME: Mat-Su Borough School District**

Postsecondary Institution Name	University of Alaska Anchorage
Postsecondary Course Name	Intermediate CAD for Building Construction
Postsecondary Course Number	AET 181
# of Postsecondary Credits	4

### Additional CTE Course Information

Author	
Course developed by	Ray Jensen, Tom Lord, Paul Moma, Revised by: Justin Aulie, Bryan Kirby, Chris Taylor, Brad Drake, Bryan Kirby, Ray Jensen
Course adapted from	Architectural Drafting 4
Date of previous course revision	June 2006
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 Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
Assess advanced residential architectural design and planning.	AD 2.3; AD 2.6; AD 3.0	AC-DES 6	RST 9-12.2; RST 9-12.3	GCO 1,5,12	B 1, 4	A2	Planning Mgmt Technical Skills Technology	SkillsUSA AD Assessment
Identify commercial architectural design.	AD 2.6; AD 3.0	AC-DES 6	RST 9-12.2; RST 9-12.3	GCO 1,5,12	B 1, 4	A2	Planning Mgmt Technical Skills Technology	SkillsUSA AD Assessment
Evaluate design factors affecting residential construction and planning.	NCS 8.0 AD 3.5; AD 2.6	AC 2, 6 AC-DES 6, 7	RST 9-12.2; RST 9-12.3	A-REI-1; NQ 1-3	B 1, 4	A2	Planning Mgmt Technical Skills Technology	SkillsUSA AD Assessment
Analyze room design criteria to meet residential industry standards.	NCS 4.3.2.5	AC 2 AC-DES 6	RST 9-12.2; RST	ARE1-1; NQ 1-3	B 1, 4	A2	Planning Mgmt Finance	SkillsUSA AD Assessment

**DISTRICT NAME: Mat-Su Borough School District**

<b>Student Performance Standards (Learner Outcomes or Knowledge &amp; Skill Statements)</b>	<b>Specific Occupational Skills Standard</b>	<b>Common Technical Core Standards</b>	<b>New Alaska ENG/LA Standards</b>	<b>New Alaska Math Standards</b>	<b>Alaska Cultural Standards</b>	<b>Employability/ Career Readiness Standards</b>	<b>All Aspects of Industry/ Systems</b>	<b>Assessment</b>
	AD 3.5		9-12.3				Technical Skills Technology	
Investigate commercial room design criteria that meet industry standards.	NCS 4.3.2.4-5  AD 3.5	AC 2 AC-DES 6	RST 9-12.2; RST 9-12.3	ARE1-1; NQ 1-3	B 1, 4	A2	Planning Mgmt Finance Technical Skills Technology	SkillsUSA AD Assessment
Integrate appropriate building codes as they relate to the Americans with Disabilities Act (ADA).	NCS 8.0  AD 1.1; AD 2.4	AC 2, 3 AC-DES 6	RST 9-12.3; RST 9-12.4	NQ 1-3; GCO 1,4	B 1, 4	A2	Planning Mgmt Technical Skills Technology	SkillsUSA AD Assessment
Produce schedules and specifications that meet architectural standards.	NCS 3.0  AD 2.5.8; AD 2.4	AC 2, 6 AC-DES 6, 7	RST 9-12.3; RST 9-12.4; L 11-12.2 a,b	NQ 1-3; GCO 1,4	B 1, 4	A2	Planning Mgmt Technical Skills Technology	SkillsUSA AD Assessment
Generate an estimate on a floor plan utilizing both a square footage and actual cost method.	AD 2.5.3; AD 2.5.7; AD 2.5.8	AC1, 2, 4, 6, 7 AC-DES1, 2, 5, 6, 8	RST 9-12.4; RST 9-12.2	ASSE 4; NQ 1-3; GCO 1-4	B2,3,4	A2,5	Finance Planning Technology	SkillsUSA AD Assessment
Design and construct architectural scale model.	AD 2.6; AD 2.5.6	AC1,2,3,4,6 AC-DES1,2,3,4,5,6,7,8	RST 9-12.3; WHST 9-12.7	NQ 1,2,3; GCO 1,2,3	B2,3,4	A2,5	Planning Mgmt Technical Skills Technology	SkillsUSA AD Assessment
Design and develop architectural plans for community design projects (Mat-Su Construction Trades, Habitat For Humanity and other local community organizations).	NCS 4.3.2  AD 3.0	AC 6	WHST 9-12.7; L 11-12.2 a,b	NQ 1-3; GCO 1,4	A 1, 4,  B 4	A5	Planning Labor Community Wk Habits	SkillsUSA AD Assessment

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Assemble a Design Portfolio for a given Residential or Commercial Project.	AD 3.0	AC 6	WHST 9-12.7; L11-12.2 a b	NQ 1-3; GCO 1.4	A 1,4 B4	A5	Planning Labor Community wk Habits	SkillsUSA AD Assessment
Explore internship opportunities in the field Architectural Drafting.	EAP 1.0; EAP 2.0	AC 5, 7	L 11-12.2 a,b; RST 9-12.2; RST 9-12.3	GCO 1	B 1, 4	A2	Planning Labor Community Wk Habits	SkillsUSA AD Assessment
Follow professional ethics including software licensing, copyright and intellectual property laws in producing and monitoring web pages and sites.	NCS 0.2	AC 3, 5	WHST 9-12.8		C 4	A 1, 2, 6	Wk Habits Mgmt	SkillsUSA AD Assessment
Participate in Integrated CTSO classroom projects.	EAP 1,2,3	AC 2, 5, 7	L 9-12.6; SL 9-12.1 a-d	GCO 1,2,4,5	C 4	A 2, 5	Technical Skills	

**Instructional Resources**

**List the major instructional resources used for this course: (websites, textbooks, essential equipment, reference materials, supplies)**

Books and Resources:

Architecture, French and Swenson;

Architecture Residential Drawing and Design, Clois Kicklighter, Thomas, Scott, Goodheart-Willcox,