THE ALASKA TECH PREP CONSORTIUM PROGRAM GUIDELINES FOR TECH PREP

Alaska Tech Prep is a school-to-careers strategic partnership between secondary education, post secondary education and business that prepares Alaska's young people for today's skilled workforce. It links student's secondary career and technical education (CTE) programs with postsecondary, apprenticeship or workforce training programs. Students may earn college credit for courses they take while still enrolled in high school and/or receive advance placement in apprenticeships with credit for prior experience. This enables students to transition smoothly, avoid duplication, and successfully acquire an industry recognized certificate, credential or degree.

Key Components

Links student's academic CTE coursework to a career pathway:

- in a seamless, non-duplicative career and technical education program of study.
- that leads to an industry recognized credential, certificate, degree or apprenticeship.

Utilizes formal written articulation agreements.

Review of articulations occurs annually to ensure the curriculum and assessments are aligned.

This process utilizes 1) partnerships, 2) written agreements, 3) career and technical education program of study, and when possible, 4) concurrent credit.

The Alaska Tech Prep Consortium

The Consortium is a collaborative partnership with education, labor, and business/industry and promotes Alaska Tech Prep strategies to link secondary and post-secondary career and technical education programs of study. Programs of study provides framework for developing the collaborative partnerships that lead to an industry credential, certificate or degree.

Consortium membership offers the opportunity to receive current information regarding best practices in Tech Prep. This includes:

- Participation in Board meetings and the selection of Alaska Tech Prep Consortium Board members.
- Supporting Tech Prep strategies for implementing programs that assist student transitions among education systems and into the workforce.
- Actively promoting and coordinating Tech Prep within your organization.
- Supporting the visions of the Alaska Workforce Investment Board's (AWIB), "building connections that put Alaskans into good jobs" and the Alaska Department of Education & Early Development, "All students will graduate prepared for postsecondary training, education and careers."

Membership is open to secondary, post-secondary education, labor, business and industry, and government institutions.

ALASKA TECH PREP CONSORTIUM PROGRAM GUIDELINES FOR TECH PREP

These operating guidelines provide consortium members procedures for a Tech Prep system in Alaska and identify roles and responsibilities to establish consistent procedures and alignments allowing students to transition into postsecondary training and the workforce while earning an industry credential, certificate or degree.

Alaska Tech Prep Program Elements (See Appendix for supplemental materials)

The Alaska Tech Prep Consortium is focused on promoting and supporting activities that address the following five program elements:

<u>Bridging student transitions</u> – The overarching goal is a smooth transition for students from high school to post secondary or advanced training. Programs may be aligned with technical centers, apprenticeship programs, or colleges, leading to an industry credential, certificate or degree without duplication or remediation.

<u>Increasing Partnerships</u> –Secondary and postsecondary partners come together for the mutual benefit of students (e.g. Develop articulation agreement, align curriculum based on learner outcomes and industry standards, develop new curriculum and/or assessments). Communication between partners is key to developing strong partnerships and postsecondary options for students

<u>Providing career guidance to students</u> —Teachers, career guides, counselors, Tech Prep staff and other advisors help students make connections to career pathways through activities such as classroom presentations, the development of plans of study, or work-based activities. Documentation of articulated programs of study are good resource materials for counselors, advisors and students.

<u>Supporting and encouraging professional development</u> - For programs to grow and improve, staff need opportunities to learn. In addition to the curriculum-related discussions embedded in the articulation process, examples include Tech Prep teachers trained in industry standards, integration of foundation and soft skills into the curriculum, use of programs of study and individual learning plans; guidance counselors trained in labor market information, inclusion of industry partners, teacher externships and the use of Plans of Study.

<u>Collecting reliable, appropriate data for reporting</u> - In order to improve programs, data is needed to monitor successful transitions, and to make decisions as Alaska Tech Prep moves forward, including what is working for students.

Alaska Tech Prep Program Courses

Courses included in a Tech Prep program are required courses both academic and technical that are identified in a career and technical education program of study which leads to an industry credential, certificate or degree without duplication or remediation.

<u>Tech Prep credit</u> – A general agreement is written between the secondary and postsecondary institution. After the secondary and postsecondary instructors compare and align curriculum and competencies, an articulated program agreement is created. Courses are part of a career pathway that results in an industry credential, certificate, or degree. Concurrent credit, when possible, may be earned by the high school student. Currently an administrative fee of \$25 per credit is charged in the University of Alaska system for Tech Prep classes that are taught by the secondary instructor at a secondary institution.

Tech Prep sponsored course – A college level course which is part of a program of study and is sponsored by the university as a part of a career and technical education program of study (CTEPS) and results in an industry credential, certificate, or degree. The course would be a catalog course and part of a required program (e.g. Math 107x, English 111, Health 110). The course is financially supported by an outside (other than the university) entity*. Financial support might include the instructor's salary, course expenses, location, etc. Each campus charges a sponsored course fee in lieu of tuition based on a scale determined by the campus.

<u>Tech Prep and Dual Credit</u> – IN progress

NOTE: If the University of Alaska pays the instructor for the instruction, full tuition will be charged in lieu of the \$25 Tech Prep administrative fee.

Alaska Tech Prep Process

Initial Process:

1. **The General Agreement** establishes the roles and responsibilities of each partner. Partnerships with local and regional campus/industry partners are recommended.

Secondary Post-Secondary	Tech Prep Facilitator	Additional Comments
Become a Consortium	Provide Alaska Tech Prep	Membership highly encouraged
member	Consortium Agreement	
Review and sign a General Agreement that identifies	Facilitate Conversations; Provide	General Agreement is in effect until
the roles and	General Agreement for	one of the partners chooses to cancel
responsibilities between the	signatures.	the agreement.
partners.		

2. Articulated program agreements.

Below is the Consortium process for creating an articulated program agreement. Each post secondary institution, campus or entity will provide additional details to address local circumstances.

Secondary	Postsecondary	Tech Prep Facilitator	Additional Comments		
process. It is criti-	cal that the secondary ir		parties in each step in the articulation in the conversations for approval of		
instructors and curriculum. Instructor shares with post secondary instructor (and/or business and industry partner), curriculum and documents detailing competencies and student outcome measures. Instructor shares syllabi and/or course content guides with secondary instructor		Facilitates the discussion between instructors as needed (including business and industry partner when applicable).	Each partner reviews course curricula to identify alignment gaps. Inclusion of advisory committees could provide input from business and industry		
Instructors from secondary and post- secondary compare and align curriculum and competencies.			Addenda should be developed only for college courses that meet program requirements and are 100 or 200-level courses leading to an industry-credential, certificate or degree		
Drafts secondary portion of a CTEPS showing high school graduation requirements, technical courses in the program, & recommended electives.	portion of CTEPS showing credentials, certificate, & degree requirements requirements, echnical courses in the program, & recommended		Final terms for course articulation are up to the postsecondary instructor and/or institution. Final terms for school to apprenticeship articulations are up to the business/industry partner and related agencies.		

An audio or face-to-face conference occurs between secondary and postsecondary instructors.

Secondary	Post-secondary	Tech Prep Facilitator	Additional Comments
A CTEPS is develor for CTEPS exampled. Secondary and post (when applicable, by partner(s) determined assessment and discorprocedures for grade student learning.	e)secondary faculty business/industry) e appropriate	Facilitates the discussion between instructors Works with instructors to create a CTEPS.	PURPOSE: CTEPS aligns coursework to avoid duplication and reduces remediation. Connects a sequence of coursework to a career pathway. CTEPS should include "workbase learning opportunities", and "Career & Technical Education Student Organizations" (CTSOs), where possible. Students are encouraged to take the Accuplacer to ensure they are academically prepared for college-level work.

Secondary	Post-Secondary	Tech Prep Facilitator	Additional Comments
Obtain signatures of	on Program	Original is filed with	Signatures include the secondary
Agreement.		post-secondary	instructor, post-secondary faculty or
		partner (e.g. Dean's	program head and any administration
		or Director's Office).	required by either institution (including
		A copy is filed with	input from business/industry partner
		the Alaska Tech	when applicable). Each entity will
		Prep Statewide	decide who signs the agreement on
		Coordinator and	their behalf.
		additional copies are	
		sent to signers and	An original may be requested by the
		university registrar.	secondary institution.
		Copies may be sent	•
		electronically.	

Additional Program Agreements may be developed at any time of year when the partners are able to come together and agree on program alignment. However, if one of the goals in developing an agreement is to allow students to register for college credit during the current academic term, the target completion date for articulated Program Agreements will be November 1 for fall semester and April 1 for spring semester.

Alaska Tech Prep Process

Annual renewal for articulated program agreements:

Annual renewal provides an opportunity to review agreements, ensuring that secondary program continues at a high quality and reflects updated curriculum to meet current industry standards. Below is the Consortium process for creating an articulation program agreement. Each post secondary institution, campus or entity will provide additional details to address local circumstances in the renewal process.

Secondary	Post-Secondary	Tech Prep Facilitator	Additional Comments
		Facilitator maintains a record for	Agreements should be renewed at
		scheduling renewals.	least one semester prior to offering.
Secondary	and post	Facilitator contacts both secondary	
secondary	forward any	and post secondary to identify	
changes to	facilitator and	changes to the articulated program	
the other p	artner	agreement	
		Facilitator uses electronic tool for	Doodle is a free electronic meeting
		scheduling meetings and uploading	tool; Google Docs is a free service
		articulated agreement for viewing	for sharing and editing materials
Secondary	, post secondary pa	artner(s) and facilitator meet.	
Document	is edited and initia	aled during the meeting.	
		Facilitator will forward copies to	
		appropriate entities as designated in	
		initial articulated program	
		agreement.	

Registration:

This section is under discussion and development.

Secondary	Post-Secondary	Tech Prep Facilitator	Additional Comments

These operating guidelines can be changed by the board at any time.

APPENDIX

APPENDIX A: DEFINITIONS	8
APPENDIX B: GENERAL AGREEMENT (EXAMPLE)	9
APPENDIX C: ARTICULATED PROGRAM AGREEMENT (EXAMPLE)	13
APPENDIX D: DATA TEMPLATE	10
APPENDIX E: CTEPS TEMPLATE (EXAMPLE)	16
APPENDIX F: PROGRAM GOALS FY09-FY13 – Supplemental Information	11
APPENDIX G: CONSORTIUM STATEWIDE STAFF RESPONSIBILITIES	19

APPENDIX A: DEFINITIONS

Career and Technical Education Program of Study (CTEPS) is a sequence of courses that connect students to a career pathway in a seamless, non duplicative manner.

- Incorporates secondary and postsecondary education elements
- Includes coherent and rigorous content aligned with challenging academic standards and relevant career and technical content in a coordinated, non-duplicative progression of courses that align secondary education and postsecondary education to adequately prepare students to succeed in postsecondary education
- May include the opportunity for secondary education students to participate in dual or concurrent enrollment programs or other ways to acquire postsecondary education credits; and
- Leads to an industry-recognized, credential or certificate at the postsecondary level, or an associate, or baccalaureate degree.
- Progression of courses indicates each course builds upon the other and the knowledge and skills are more advanced in each course.

Career Cluster - used nationally as an organizer of knowledge and skills needed by a broad industry or related industries.

Career Ladder - a new project of the Alaska Department of Labor and Workforce Development's Research & Analysis Section used to identify occupations that are most likely to lead to advancement. This information is based on real-world analysis of occupation-to-occupation movements of Alaska from 2001 through 2006.

Career Pathway - identifies a sub-set within career clusters, i.e. as an organizer of knowledge and skills statements shared by closely related professions.

Individual Career Learning Plan - outlines a student's academic course work and other experiences and used as a guide by the student to achieve individually chosen career goals.

Tech Prep Student is a student who has enrolled in one or more technical courses that are part of a Tech Prep course of study. Note: Perkins Act of 2006 defines a Tech Prep student as a student who has enrolled in two or more courses in the secondary component of a Tech Prep program.

APPENDIX B: GENERAL AGREEMENT

University of Alaska Tech Prep Program

Example Only

Policies and Procedures

- The following policies and procedures are common across the UA system.
- Each campus may set individual policies regarding registration, articulation, credit, etc.

Definition

The Tech Prep Program is a partnership between University of Alaska (UA), secondary school districts, and other partnership institutions. It is a program that recognizes technical and related academic preparation and, where possible, work-based learning in a specific career field. It partners secondary education, post-secondary education, labor and business in a sequential course of study without duplication of coursework that will lead a student to a certificate, credential, apprenticeship, associate degree or baccalaureate degree.

Purpose

The purpose of the Tech Prep Program is to offer students from partnership institutions in a technical field of study an opportunity to receive lower-division college credit toward a UA certificate or undergraduate degree. Students may receive UA credit by successfully completing specific courses that have been approved for articulation at respective UA campuses. Articulation agreements use the university's curriculum standards and measures for articulating course work from secondary school districts and other partnerships into UA credit. Motivated, able learners will greatly benefit from this outcomes based program. Students who complete course work through the Tech Prep program will be better prepared to:

- go directly to work or into a training program requiring an entry-level technical base,
- continue to work toward a university certificate or degree while using technical skills in the workplace,
- attend UA with a head start toward a certificate or degree, or
- transfer credits from UA to another university or college.

Opportunities

Tech Prep students may have the opportunity to take advantage of UA's multiple career and advising services for prospective students. Advising and correct placement of Tech Prep students will be more appropriate since the University will know what skills the student has already achieved. It also allows the University to plan a pathway of study that helps maximize the student's course work and avoids duplication of work done in the secondary school district or other partnership institutions.

General Information

Credits

There is no limit on the total number of UA credits a student may receive through the Tech Prep program.

• UA credit received through the Tech Prep program will be considered resident credit. Credit will not be awarded for a course that duplicates one for which UA credit was already received.

- Credit through the UA Tech Prep program is generally not included in the computation of study load for UA full-time or part-time status.
- If the Tech Prep program is delivered collaboratively with UAA, UAF and/or UAS, credit from each participating institution will be counted toward fulfillment of residency requirements.
- Credit for partnership courses articulated as UA elective credit will be awarded through the appropriate transfer credit process.
- Students may take advantage of the Tech Prep Program while attending the partnership institution or they may request non-concurrent credit from UA, "after the fact", providing the courses were articulated and approved at that campus at the time of completion and the student meets the transfer credit deadline set by that campus/agreement. The process for obtaining credit after the fact is established at each campus.

Grades

- Recommended criteria for acceptance in the UA Tech Prep program is a 2.00 or higher GPA at the partnership institution, and a 2.00 or higher cumulative GPA for any courses taken at UA.
- The final grade received in the partnership course, taken through the Tech Prep program, will be posted on the student's UA transcript as the final grade in the concurrently registered course unless other grading procedures are specified in the agreement between the partners.
- Academic letter grades (A-F) will be included in the student's UAA, UAS or UAF grade point average computation (GPA).
- Grades earned in Tech Prep courses can be viewed shortly after the end of the semester at www.uaonline.alaska.edu.
- Requests for official transcripts of all UA course work, including Tech Prep program courses, must be written and include the signature of the student whose record is being requested. A transcript fee is charged and must be paid in advance.

Articulation of Courses

Articulation is governed by the following guidelines:

- Tech Prep courses are those specifically identified and approved through the articulation process to be in alignment with UA courses. However, some partnership courses may be articulated to UA lower division elective credit.
- There must be a clearly defined articulation agreement for each articulated course, based on a set of competencies that will be determined by relevant UA and partnership faculty. Although teaching and testing methods may differ, each course will be subject to the instructional objectives and outcomes of comparable, traditionally taught courses.
- Each articulation agreement is unique and will be subject to reconsideration or change each academic year. A comprehensive review will be conducted each year or at the request of either party, to be sure industry and performance standards are being met and that any curriculum changes are incorporated into the articulation agreement.
- Specific standards and/or criteria required will be reflected in the course articulation agreement.
- Tech Prep is designed to recognize quality technical training. Both UA and the partnership institution will continuously maintain high course standards.

NOTE: Not all UA courses are available for articulation through the Tech Prep program.

UA Responsibilities

UA's responsibilities include the following:

To UA community

• To inform UA community of the student registration process.

• To inform UA community of the availability and opportunities of the Tech Prep Program.

To partnership institutions

- To meet with partnership institution personnel (faculty) to complete the course articulation procedure through the school/college faculty curriculum process.
- To meet with partnership institution personnel to provide an introduction and orientation to UA's Tech Prep program.
- To provide UA registration forms and coordinate training of partnership institution personnel for registering interested students.
- To provide partnership institution personnel with a calendar reflecting the Tech Prep registration, grading processes and deadlines.

To students

- To assist students in developing educational plans consistent with career/life goals, providing them with the information and skills needed to pursue those goals.
- Upon receipt of the Tech Prep program registration forms, to register students concurrently in the articulated UA course(s).
- Upon receipt of the official partnership transcript or official UA grade roster reflecting course completion and final grade, to record the appropriate final grade on the student's UA transcript.

Partnership Institution Responsibilities

The responsibilities of the partnership institution include the following:

To school community

- To inform students, parents and necessary partnership institution personnel (faculty, counselors, administrative staff) of the UA Tech Prep program career pathway and registration opportunities.
- To provide information to students and other secondary school districts and partnership institutions about the UA Tech Prep program student application and registration process.

To UA

- To provide current course syllabi and course content guides that clearly identify what objectives the instructor intends to accomplish in the course, what the student should know and/or be able to do as a result of completing the course, and what evaluation methods are appropriate for determining how well the goals and outcomes have been met.
- To provide UA with an official partnership transcript or official UA grade roster reflecting course completion and final grade received in the articulated course.
- To meet with UA personnel (faculty) to complete the course evaluation and articulation procedure.
- To coordinate and implement the Tech Prep program registration process with UA personnel.

To students

- To advise students of their eligibility and responsibility to become familiar with the policies and procedures associated with the Tech Prep program and subsequent registration at UA.
- To obtain signed Authorization to Discuss/Release Educational Information form from each student officially registered in the Tech Prep program in order to discuss/release information and supply official transcripts reflecting the student's registration and course completion.

Student Responsibilities

The student's responsibilities include the following:

- To inform partnership institution personnel of interest in the UA Tech Prep program.
- To complete the required UA forms, and pay the non-refundable fee, if required.
- To be aware of and comply with both the partnership institution and UA academic polices, regulations, procedures and deadlines associated with the Tech Prep program as well as those reflected in the current UA catalog(s) pertaining to open enrollment, formal admission, registration, academic action and certificate or degree completion. See the following:
- UAA: (www.uaa.alaska.edu),UAF: (www.uaf.edu), UAS: (www.uas.alaska.edu)
- To demonstrate learning skills and a satisfactory level of performance in the methods and techniques of the subject, commensurate with the appropriate UA course level (100 or 200 level).
- To provide the partnership institution and UA with signed Authorization to Discuss/Release Educational Information form in order for them to discuss/release information and supply official transcripts reflecting the Tech Prep registration and course completion.

Registration

Registration is governed by the following guidelines:

- Students will not be officially registered in the Tech Prep program or at UA until all forms are received and fees paid. Students are held academically and financially responsible for their UA registration. A non-refundable administrative fee of \$25 per credit will be charged. The University reserves the right to cancel courses or change its fees at any time.
- If, after registering at UA, a student changes plans or is unable to complete the partnership course, the student must officially withdraw from the concurrent UA course(s) prior to the end of the course. A student who does not complete the partnership course and does not withdraw from the concurrent UA course will receive a final grade of "F" or "NP," depending on the grading basis of the UA course.
- Students registered through the Tech Prep program, may elect to pay the non-refundable Student Activities Fee for access to available activities and facilities and/or the non-refundable Student Health Center Fee for access to campus health services and programs if they are registered for the number of credits required at each campus to qualify for these benefits.
- Students under the age of 18 may be required to get signatures from the student's parent or guardian, school principal and/or counselor, and instructor of the partnership course(s).

NOTE: Registration in the Tech Prep program does not guarantee subsequent formal admission to a UA certificate or degree program.

Family Educational Rights and Privacy Act (FERPA)

FERPA was designed to protect the privacy of education records. No one outside UA shall have access to, nor will UA disclose any information from, a student's record without the written consent of the student.

APPENDIX C: ARTICULATED PROGRAM AGREEMENT

Example Only

Marine Technology Addendum to PWSCC/VHS Tech Prep Agreement

Prince William Sound Community College

Industrial Technologies Main Campus: PO Box 97 Valdez, Alaska 99686 Valdez High School Marine Technology P.O. Box 398 1112 West Klutina Street Valdez, AK 99686

Purpose: In addition to the general Tech Prep Agreement between the Prince William Sound Community College and Valdez City School District, we have agreed to the following process and criteria with respect to the program of Marine Technology.

1. The Valdez High School Marine Technology program will follow a curriculum coordinated with the administration and faculty of the Prince William Sound Community College pertaining to the following courses:

PWSCC Program	PWSCC Course Title	PWSCC Credit	VHS Course Title
Marine Technology	MT V282A (Marine Technology I)	4 credits	Marine Technology I
	MT V135 (Marine Safety and Survival)	1 credit	Marine Safety & Survival
	MT V282B (Marine Technology II)	4 credits	Marine Technology II

- 2. Valdez High School will teach for the attached outcomes.
- 3. In order to receive concurrent credit, the student will register for the Tech Prep class during the semester in which the competencies will be completed. The PWSCC/UAA grade posted will be the grade earned in that semester.

Marine Technology Addendum to PWSCC/VHS Tech Prep Agreement, pg. 2

Example Only

Director of Training Industrial Technologies Prince William Sound Com	nmunity College	Marine Technology Instructor Valdez High School y College			
Signature	 Date	Signature	Date		
Dean of Instruction Prince William Sound Com	nmunity College	Principal Valdez High School			
Signature	Date	Signature	Date		
President Prince William Sound Com	nmunity College				
Signature	Date				

APPENDIX D: DATA TEMPLATE

		_	_							
ourse	# of Credits									
ion - 1st (Course									
Course Information - 1st Course	Course									
Cour	Term									
f Study	Plan of Study									
Program of Study	New Agreement									
	UA Program									
tion	UA Career Cluster									
University Information	Section									
Univers	Cohort Code/ Campus ID									
	UA ID Number									
	School District									
ormation	Gender									
Student Information	First Name									
	Last Name									

APPENDIX E: PROGRAM OF STUDY (EXAMPLE ONLY)

CTE Program of Study

Career Cluster Pathway (& Major)

Architecture & Construction

Construction

District Name:

Date: January 2010

Career Cluster or Pathway Description: The construction career cluster prepares learners to enter an industry which starts with designing, planning, managing, building, and maintaining physical structures and the larger building environment including roadways and bridges, industrial, commercial, and residential facilities. The environmental aspects of the structures as well as restorations and alterations of structures are included in this industry. (see www.careerclusters.org)

Middle School Exploratory Options:

6th - WIN Placement Test

DOCTOR CONTINUE OPTIONS

8th – WIN Placement Test

9 th G	rade	10 th (Grade	11 th C	Grade	12'	Grade	
Semester 1	Semester 2	Semester 1	Semester 2	Semester 1	Semester 2	Semester 1	Semester 2	
		SBA/HSGQE,	AKCIS Portfolio	Accuplacer, WorkKeys, PSA	T, SAT, ACT, AKCIS Portfolio	Accuplacer, SAT	, ACT, AKCIS Portfolio	
English 1	English 1	English 2	English 2	English 3	English 3	English 4 or	eNGL S111 Methods of Writt Comm (3 cr	
Algebra 1 or Geometry	Algebra 1 or Geometry	Geometry or Algebra 2	Geometry or Algebra 2	Algebra 2, Trig or Statistics	Algebra 2, Trig or Statistics	Trig, Calculus, Statistics, or	MATH S105 Interm Algebra (4 cr)	
Science	Science	Science	Science	Science	Science	Science	Science	
Alaska Cultures	Computer Apps (Elective)	History	History	History or Gov't	History or Gov't	Elective	Elective	
Health	Physical Ed	Elective	Elective	Elective	Elective	Elective	Elective	
Elective	Elective	Career Planning	Career Planning	(CT S100, Wood	The state of the s	BASIC CONSTRUCTION (CT S120, Basic Construction Techniques, 3 cr		
Technical A	Technical Assessment(s) Technical Assessment(s)		Technical Assessment(s)		Technical Assessment(s)			
	Work-Based	l Learning Oppor	tunities	Career-Tec	hnical Student Organizatio	ns Co	ertifications	
		•						

One or Two-Year Post-	Adult Registered Apprenticeships	Four-Year College and	Occupational Certifications &	On The Job Training, Ski		
secondary Programs		University Programs	Licenses	Training Certificates, etc		
AAS Construction Technology Apprenticeship Technologies (up to 38 credits could be transcripted based on apprenticeship type)	 Carpenter (2) Electrician (1) Plumber (2) Residential Carpenter (2) Sheet Metal Worker (1) 	Bachelor of Science Technology Bachelor of Technology	Residential Building Science Drafting Technology Residential / Light Construction	• NCCER		

			Development - Adult Registered Appropriate Appropriate Ask.us/apprenticeoccupations/2constructions/2constructions/2constructions/2constructions/2constructions/2constructions/2constructions/2constructions/2constructions/	
Carpenter Sponsors:	Residential Carpenter Sponsors:	Electrician Sponsor:	Plumber Sponsors:	Sheet Metal Worker Sponsor:
Alaska AcousticalWoodwright Construction	Ketchikan Indian Community Southern Southeast Alaska Building Industry Association	Channel Electric, INC.	Southeast Piping & Consulting Southeast Plumbing	Ketchikan Mechanical, INC.

POSTSECONDARY PARTNER: UNVERSITY OF ALASKA SOUTHEAST POSTSECONDARY PROGRAM: Construction Technology

Resulting Certificate, Credential or Degree: AAS

Certificate of Completion **Drafting Technology**

31 credit hours minimum

Program Requirements 21 credits CT 5120 Basic Construction Techniques 3 CT S175 Introduction to AutoCAD 3

CT S181 Intermediate AutoCAD 3 CT S201 Cold Climate Coastal Construction 3

CT S213 Engineering Graphics 3 CT S170 Residential Design 3

CT S252 Construction Documentation 3

General Education Requirements 10 credits
Oral Communication Skills (your choice) 3
Written Communication Skills 3 MATH 105 Intermediate Algebra (or higher) 4

Drafting Technology courses combine technical information and hands-on experience necessary for work in a variety of drafting fields. Students gain hands-on training in construction, and develop job ready skills with conventional drawing techniques and computer-aided drafting. Development of skills in mathematics, drawing and lettering, architectural concepts, design and construction

Certificate of Completion Residential Building Science

32 credit hours minimum

Program Requirements 22 credits
CIOS 5135 Using Spreadsheets 1
CT 5110 Where Health & Housing Meet 1
CT 5165 Residential Building Technology 3
CT 5185 Building Diagnostics & Testing 3
CT 5201 Cold Climate Coastal Construction 3
CT 5210 New Materials in Construction 1
CT 5230 Residential Mechanical Ventilation 3
CT 5285 Advanced Building Pressure Diagnostics 3
RMS 5103 Survey of Bhysics 4.

PHYS S102 Survey of Physics 4

General Education Requirements 10 credits

Oral Communication Skills 3 Written Communication Skills 3 MATH 105 Intermediate Algebra (or higher) 4

Residential Building Science is for individuals interested in the dynamics and systems approach to residential building. Program emphasis is teaching the essentials of diagnostic assessment and the issues of building durability, building performance, energy efficiency, and indoor air quality.

Associate of Applied Science

Construction Technology 61 credit hours

Major Requirements 45 credits

Major Requirements 45 credits
ACCT \$100 Recordkeeping for Small Business 3
BA \$166 Small Business Management 3
CT \$100 Woodworking 1, 3
CT \$120 Basic Construction Techniques 3
CT \$135 Residential Wiring 3
CT \$140 Residential Plumbing & Heating 3
CT \$170 Residential Design, Codes & Standards 3
CT \$175 Introduction to AutoCAD 3
CT \$170 Introduction to AutoCAD 3

CT S201 Cold Climate Coastal Construction 3 CT S222 Building Construction 1 3 CT S223 Building Construction II 3 CT S225 Construction Planning & Scheduling 3

CT S226 Construction Estimating 3

CT S230 Residential Mechanical Ventilation 3 Technical or Vocational Elective 3

General Education Requirements 16 credits

Oral Communication Skills (your choice) 3
Written Communication Skills (one your choice) 6
MATH 105 Intermediate Algebra (or higher) 4
Advisor-approved GER elective 3

Construction Technology will benefit those interested in working in the construction trades and mid-management positions in the industry.

APPENDIX F: ALASKA TECH PREP PROGRAM GOALS

Goal 1. Develop Tech Prep programs in high-demand, high-skill career fields, using articulation agreement to link secondary and postsecondary institutions in non-duplicative sequences of courses, and providing possibilities for concurrent enrollment.

1.1 Expand Tech Prep programs statewide

- 1.1.2 Continue to support CRCD's TTEP grant efforts to delivery instruction via distance for Allied Health and other high growth areas.
- 1.1.3 Explore district alliances and continue to share Tech Prep materials and best practices in rural sites.
- 1.1.4 Explore mentoring and resource structures that will develop and strengthen sustainable CTE & Tech Prep programs.
- 1.1.5 Continue to examine Tech Prep program policies and promote consistent policies that support student success. 1.2.1 Utilize business and industry apprenticeship articulations and relationships such as the Anchorage School District to develop a model for extending apprenticeship opportunities and programs.

1.2 Expand articulation with apprenticeship programs.

- 1.2.1 Utilize business and industry apprenticeship articulations and relationships such as the Anchorage School District to develop a model for extending apprenticeship opportunities and programs
- 1.2.2 Gather follow-up data on students who participated in school to apprenticeship programs.
- Goal 2. Work with postsecondary, apprenticeship and secondary educational institutions to develop Tech Prep Programs of Study that build student competence in technical skills and in core academic subjects through applied, contextual, and integrated instruction in a coherent sequence of courses that result in an industry-recognized credential, certificate or degree in a specific career field.
 - 2.1 Identify strategies to address academic preparation of tech prep students for the programs in which they are earning college credits/advanced standing
 - 2.1.1 Continue to support assessments that measure academic preparation of Tech Prep students, i.e., Accuplacer WorkKeys.
 - 2.2 Review Plans of Study and support the inclusion of the academic and technical standards within a program's career cluster.
 - 2.2.1 Continue to include and review Plans of Study in the articulation process.
 - 2.2.2 Assist EED in the implementation and integration of All Aspects of Industry and the inclusion of academic and technical standards within a program's career cluster.
 - 2.2.3 Determine how Consortia staff can assist EED to identify district's status in the development and use of Plans of Study and disseminate Best Practices.
 - 2.2.4 Support use of contextual and applied curricula and instruction by gathering best practices of contextual teaching and learning and reporting those practices via the web site, newsletter, and work sessions.
- Goal 3. Develop Tech Prep programs that involve all the participants in the Consortia in programs that facilitate non-duplicative student progress without the need for remediation, including utilization of workbased and work site learning in conjunction with business and all aspects of industry, and use of educational technology and distance learning, as appropriate.
 - 3.1 Review Tech Prep programs for all aspects of an industry and work-based learning opportunities.
 - 3.1.1 Assist EED in the implementation and integration of All Aspects of Industry into the curriculum.
 - 3.1.2 Assist school districts in identification of regional work-based learning activities and how the work-based learning experiences relate to their CTE programs. Disseminate information to the Consortia and CTE educators
 - 3.1.3 Continue to facilitate opportunities and develop articulations with business/industry and districts for utilization of work-based and work site learning, combined with educational technology and/or distance learning, as appropriate.
 - 3.2 Use technology to provide students access to work-based information from business and industry.
 - 3.2.1 Update AK Tech Prep Website with information useful to students, CTE teachers and business partners.
- Goal 4. Provide career pathway related in-service training for teachers, faculty, administrators and counselors, including support for the use of web-based curriculum, assessments, and career planning information.

4. 1 Conduct professional development training.

- 4.1.1 Provided information and training at state and professional conferences, including Tech Prep work sessions.
- 4.2 Use educational technology and alternative learning to more fully involve all consortium members.
- 4.2.1 Encourage teachers, administration & counselors to stay current with resources available for developing career pathways including the needs, expectations, partnerships, and industry recognized certification

Goal 5. Provide equal access to members of special populations and develop Tech Prep program services appropriate to their needs

5.1 Identify special populations groups enrolled in Tech Prep and services to support them.

- 5.1.1 Share best practices in serving special populations and developing Tech Prep programs that are appropriate to the needs of special populations, including students entering non-traditional programs.
- 5.1.2 Provide financial assistance to allow economically disadvantaged students to participate in the Tech Prep college credit.

Goal 6. Provide for preparatory services for participants in Tech Prep programs, including training in foundational skills of Applied Math, Applied Reading, and Locating Information.

6.1 Share program services for Tech Prep students that prepare them for college or apprenticeship training.

- 6.1.1. Collaborate with postsecondary training programs to identify current services available to support Tech Prep student's transitioning into postsecondary programs.
- 6.1.2 Assist counselors and teachers in the use of Career Readiness and academic assessments to help students connect foundational academic courses, technical courses and careers pathways.

Goal 7. Coordinate with the state's Perkins' Title I (i.e., secondary and postsecondary grants) program activities including data collection and reporting for performance accountability.

7.1 Coordinate with EED to meet accountability requirements under Perkins IV.

- 7.1.1 Hire and continue to work with a consultant to analyze current data systems for Perkins and Tech Prep and develop a system to meet reporting requirements.
- 7.1.2 Examine policy and potential options for addressing data collection and reporting under the guidelines of FERPA.
- 7.1.3 Collaborate with MAU enrollment services and Department of Labor (DOL) placement offices to develop consistent methods for identifying Tech Prep students.

Permissible Goals/Activities:

- Continue to survey membership to evaluate and continue implementing best practices
- Redesign AK Tech Prep website
- Acquire equipment that supports the goals of the grant
- Acquire staff development and technical assistance for utilizing educational technology, alternative delivery methods and increased communications statewide.
- Explore resource materials and ideas to assist schools in integrate career exploration.

APPENDIX G: ALASKA TECH PREP CONSORTIUM STATEWIDE, UNIVERSITY OF ALASKA (UA), AND TECH PREP STAFF RESPONSIBILITIES

Alaska Tech Prep Consortium Statewide Staff

Consortium Statewide Staff responsibilities:

<u>Statewide Grant Coordinator</u>: The Statewide Grant Coordinator is responsible for oversight of all consortium goals and related activities. The Director is responsible for grant applications and reports of progress to grantors and stakeholders. Duties include:

- Provide assistance to Consortium, UA and partner Tech Prep staff.
- Provide oversight of all Consortium goals and related activities, and facilitates meetings between all Consortium, UA and partner Tech Prep staff statewide to provide consistency among programs
- Coordinates resources including budget of Tech Prep grant and needs of UA and apprenticeship training organizations
- Build consensus among current members of statewide consortium.
- Supervise Consortium Tech Prep staff and oversee recruitment of and work of contractors for website development, curriculum development, pilot courses and program evaluation.
- Develop and refine Tech Prep protocols and protocols and procedures.
- Administer pilot mobile/distance courses statewide.
- Collect and disseminate Tech Prep information to key stakeholders
- Maintain records, monitor trends and report on impact of Tech Prep efforts.
- Coordinate submission of performance reports. Provide grant narrative and fiscal reports on a quarterly basis or as directed by the Consortium Board.

<u>Statewide Coordinator/Tech Prep Specialist</u>: Provide technical assistance and act as a mentor to UA and partner Tech Prep staff as needed in developing articulation agreements, planning transitional activities and collecting data. Duties include:

- Develop and coordinate Tech Prep articulated programs with secondary schools, private training institutions, apprenticeship training organizations, and other related training entities in collaboration with postsecondary, apprenticeship and secondary faculty and administration.
- Coordinate regional meetings and related activities
- Identify professional development needs and collaborate with partners statewide to implement professional development
- Assist and support activities such as registration and advising of students, professional development, and curriculum development.
- Promoting, market and advertise Alaska Tech Prep
- Guide the development of career and technical education programs of study that promotes and facilitates seamless education grades 9 16 statewide

- Collect and disseminate Tech Prep information to key stakeholders
- Inventory Tech Prep and Career and Technical Education programs statewide, and maintain records, monitor trends and impact of Tech Prep efforts

Consortium Statewide Tech Prep Staff Service area:

<u>Statewide Grant Coordinator</u>: Provides assistance statewide, with additional assistance to school districts in South Central Alaska, as needed, in collaboration with UAA campuses.

Southeast position: Serves all school districts from Yakutat to Metlakatla and all UAS campuses.

<u>Interior position</u>: Provides technical assistance to UAF campus (e.g. UAF campuses, CRCD, TVC) and interior Tech Prep staff as needed.

UA Tech Prep and partner Tech Prep Staff: This section is under development.

NOTE: Consortium Statewide Tech Prep staff and all UA and partner Tech Prep staff will have a work session at least once each academic year to go over policies and procedures to ensure consistency among campuses.