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 provide 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:

*Bridging student transitions* – 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.

*Increasing Partnerships* – 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.

*Providing career guidance to students* – 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.

*Supporting and encouraging professional development* - 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.

*Collecting reliable, appropriate data for reporting* - 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.

**Tech Prep credit** – 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.

**Tech Prep and Dual Credit** – 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.

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

<table>
<thead>
<tr>
<th>Secondary</th>
<th>Postsecondary</th>
<th>Tech Prep Facilitator</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication is key. It is important to include all interested parties in each step in the articulation process. It is critical that the secondary institution be involved in the conversations for approval of instructors and curriculum.</td>
<td>Instructor shares syllabi and/or course content guides with secondary instructor</td>
<td>Facilitates the discussion between instructors as needed (including business and industry partner when applicable).</td>
<td>Each partner reviews course curricula to identify alignment gaps. Inclusion of advisory committees could provide input from business and industry.</td>
</tr>
<tr>
<td>Instructor shares with post secondary instructor (and/or business and industry partner), curriculum and documents detailing competencies and student outcome measures. Instructors from secondary and post-secondary compare and align curriculum and competencies.</td>
<td>Instructor shares syllabi and/or course content guides with secondary instructor</td>
<td>Facilitates the discussion between instructors as needed (including business and industry partner when applicable).</td>
<td>Each partner reviews course curricula to identify alignment gaps. Inclusion of advisory committees could provide input from business and industry.</td>
</tr>
<tr>
<td>Drafts secondary portion of a CTEPS showing high school graduation requirements, technical courses in the program, &amp; recommended electives.</td>
<td>Drafts post secondary portion of CTEPS showing credentials, certificate, &amp; degree requirements</td>
<td>Facilitates the discussion between instructors as needed (including business/industry partner when applicable). Sets up meetings and drafts program agreements.</td>
<td>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.</td>
</tr>
</tbody>
</table>
An audio or face-to-face conference occurs between secondary and postsecondary instructors.

<table>
<thead>
<tr>
<th>Secondary</th>
<th>Post-secondary</th>
<th>Tech Prep Facilitator</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A CTEPS is developed (See Appendix for CTEPS example).</td>
<td>Facilitates the discussion between instructors</td>
<td>PURPOSE: CTEPS aligns coursework to avoid duplication and reduces remediation. Connects a sequence of coursework to a career pathway.</td>
<td></td>
</tr>
<tr>
<td>Secondary and post-secondary faculty (when applicable, business/industry) partner(s) determine appropriate assessment and discuss method and procedures for grading and evaluation of student learning.</td>
<td>Works with instructors to create a CTEPS.</td>
<td>CTEPS should include “workbase learning opportunities”, and “Career &amp; Technical Education Student Organizations” (CTSOs), where possible. Students are encouraged to take the Accuplacer to ensure they are academically prepared for college-level work.</td>
<td></td>
</tr>
</tbody>
</table>

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

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.

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

Registration:
This section is under discussion and development.

<table>
<thead>
<tr>
<th>Secondary</th>
<th>Post-Secondary</th>
<th>Tech Prep Facilitator</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

APPENDIX A: DEFINITIONS...............................................................8
APPENDIX B: GENERAL AGREEMENT (EXAMPLE).................................9
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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.
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:

<table>
<thead>
<tr>
<th>PWSCC Program</th>
<th>PWSCC Course Title</th>
<th>PWSCC Credit</th>
<th>VHS Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Technology</td>
<td>MT V282A (Marine Technology I)</td>
<td>4 credits</td>
<td>Marine Technology I</td>
</tr>
<tr>
<td>MT V135 (Marine Safety and Survival)</td>
<td>1 credit</td>
<td>Marine Safety &amp; Survival</td>
<td></td>
</tr>
<tr>
<td>MT V282B (Marine Technology II)</td>
<td>4 credits</td>
<td>Marine Technology II</td>
<td></td>
</tr>
</tbody>
</table>

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 Community College

Marine Technology Instructor
Valdez High School

______________________________  ________________________________  __________________
Signature                      Date  Signature                      Date

Dean of Instruction
Prince William Sound Community College

Principal
Valdez High School

______________________________  ________________________________  __________________
Signature                      Date  Signature                      Date

President
Prince William Sound Community College

______________________________  __________________
Signature                      Date
APPENDIX D: DATA TEMPLATE

<table>
<thead>
<tr>
<th>Program of Study</th>
<th>Course Information - 1st Course</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Course Number</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>University Information</th>
<th>Student Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA ID Number</td>
<td>Last Name</td>
</tr>
<tr>
<td>School District</td>
<td>School Cluster</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
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<tr>
<td>School District</td>
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</tr>
</tbody>
</table>

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<tr>
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<th>Course Information - 1st Course</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>Course Number</td>
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</table>

<table>
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<tr>
<th>University Information</th>
<th>Student Information</th>
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<tbody>
<tr>
<td>UA ID Number</td>
<td>Last Name</td>
</tr>
<tr>
<td>School District</td>
<td>School Cluster</td>
</tr>
</tbody>
</table>
## APPENDIX E: PROGRAM OF STUDY (EXAMPLE ONLY)

<table>
<thead>
<tr>
<th>Career Cluster/Pathway &amp; Major</th>
<th>District Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture &amp; Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Middle School Exploratory Options:**

- **6th - WIN Placement Test**
- **7th -**
- **8th - WIN Placement Test**

### RECOMMENDED SECONDARY CAREER DEVELOPMENT SCHEDULE (CTE Classes are Boldface Font)

#### 9th Grade

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 1</td>
<td>English 1</td>
</tr>
<tr>
<td>Algebra 1 or Geometry</td>
<td>Algebra 1 or Geometry</td>
</tr>
<tr>
<td>Science</td>
<td>Science</td>
</tr>
<tr>
<td>Alaska Cultures</td>
<td>Computer Apps (Elective)</td>
</tr>
<tr>
<td>Health</td>
<td>Physical Ed</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective</td>
</tr>
</tbody>
</table>

**WORKS 1** (CT 0100, Woodworking 1.5 cr.)

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 2</td>
<td>English 2</td>
</tr>
<tr>
<td>Geometry</td>
<td>Geometry</td>
</tr>
<tr>
<td>Science</td>
<td>Science</td>
</tr>
<tr>
<td>History</td>
<td>History</td>
</tr>
<tr>
<td>Elective</td>
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</table>

**Technical Assessment(s)**

#### 10th Grade

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
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</thead>
<tbody>
<tr>
<td>English 3</td>
<td>English 3</td>
</tr>
<tr>
<td>Algebra 2, Trig or Statistics</td>
<td>Algebra 2, Trig or Statistics</td>
</tr>
<tr>
<td>Science</td>
<td>Science</td>
</tr>
<tr>
<td>History or Gov't</td>
<td>History or Gov't</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective</td>
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</table>

**Woods 1** (CT 0100, Woodworking 1.5 cr.)

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
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</thead>
<tbody>
<tr>
<td>Elective</td>
<td>Elective</td>
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**Technical Assessment(s)**

#### 11th Grade

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptance for WorkKeys, PSAT, ACT, and AGETS Portfolio</td>
<td>Acceptance for WorkKeys, PSAT, ACT, and AGETS Portfolio</td>
</tr>
<tr>
<td>DOE/CDC English 4 or EnL111 Methods of Writing (3 cr)</td>
<td>Trig, Calculus, Statistics, or MATH 115 Intermediate Algebra (4 cr)</td>
</tr>
<tr>
<td>Science</td>
<td>Science</td>
</tr>
<tr>
<td>History or Gov't</td>
<td>History or Gov't</td>
</tr>
<tr>
<td>Elective</td>
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</tbody>
</table>

**Technical Assessment(s)**

#### 12th Grade

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
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</thead>
<tbody>
<tr>
<td>Acceptance for WorkKeys, PSAT, ACT, and AGETS Portfolio</td>
<td>Acceptance for WorkKeys, PSAT, ACT, and AGETS Portfolio</td>
</tr>
<tr>
<td>Trig, Calculus, Statistics, or MATH 115 Intermediate Algebra (4 cr)</td>
<td>Science</td>
</tr>
<tr>
<td>History or Gov't</td>
<td>History or Gov't</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective</td>
</tr>
</tbody>
</table>

**Technical Assessment(s)**

### POSTSECONDARY OPTIONS

<table>
<thead>
<tr>
<th>One or Two-Year Postsecondary Programs</th>
<th>Adult Registered Apprenticeships</th>
<th>Four-Year College and University Programs</th>
<th>Occupational Certifications &amp; Licenses</th>
<th>On the Job Training, Skill Training Certificate, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS Construction Technology</td>
<td>Carpenter (2)</td>
<td>Bachelor of Science Technology</td>
<td>Residential Building Science</td>
<td>NCCER</td>
</tr>
<tr>
<td>Apprenticeship Technologies (up to 38 credits could be transferred based on apprenticeship type)</td>
<td>Electrician (1)</td>
<td>Bachelor of Technology</td>
<td>Drafting Technology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plumber (2)</td>
<td></td>
<td>Residential / Light Construction</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Residential Carpenter (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sheet Metal Worker (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Residential Carpenter (3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sheet Metal Worker (1)</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### POSTSECONDARY PARTNER: UNIVERSITY OF ALASKA SOUTHEAST

### POSTSECONDARY PROGRAM: Construction Technology

#### Certificates, Credential or Degree: AAS

**Certificate of Completion Drafting Technology**

31 credit hours minimum

**Program Requirements 21 credits**

- **CT 0120 Basic Construction Techniques 3**
- **CT 0230 Introduction to AutoCAD 3**
- **CT 0010 Intermediate AutoCAD 3**
- **CT 0350 Intro to Civil Engineering 2**
- **CT 0370 Residential Design 2**
- **CT 0252 Construction Documentation 2**

**General Education Requirements 10 credits**

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

**Drafting Technology** course combines technical information and hands-on experience necessary for work in a variety of drafting fields. This 31-credit program gains hands-on training in construction, and develop job ready skills with conventional drafting techniques and computer-aided drafting. Development of skills in mathematics, drawing, and lettering, architectural concepts, design and construction techniques.

**Certificate of Completion Residential Building Science**

32 credit hours minimum

**Program Requirements 22 credits**

- **CT 0305 Construction Technology 4**
- **CT 0335 Residential Building Technology 3**
- **CT 0355 Construction Design & Technology 2**
- **CT 0350 Residential Construction 3**
- **CT 0350 Residential Building and Design 3**
- **CT 0350 Residential Building Design 3**
- **CT 0350 Advanced Building Design 2**
- **CT 0350 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 emphasizes the fundamentals of building technology and the issues of building performance, energy efficiency, and indoor air quality.

### Associate of Applied Science

#### Construction Technology

61 credit hours

**Major Requirements 46 credits**

- **CT 0305 Construction Technology 4**
- **CT 0335 Residential Building Technology 3**
- **CT 0355 Construction Design & Technology 2**
- **CT 0350 Residential Construction 3**
- **CT 0350 Residential Building Design 3**
- **CT 0350 Advanced Building Design 2**
- **CT 0350 Survey of Physics 4**

**General Education Requirements 16 credits**

- Oral Communication Skills (your choice) 3
- Written Communication Skills (your choice) 3
- MATH 105 Intermediate Algebra (or higher) 4
- Advisor-approved G/B elective 2

**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 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 work-based 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.

Revised & Board Approved 04/27/2010
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:

Statewide Grant Coordinator: 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 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.

Statewide Coordinator/Tech Prep Specialist: 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:**

**Statewide Grant Coordinator:** 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.

**Interior position:** 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.