KENAI PENINSULA BOROUGH SCHOOL DISTRICT

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MEMORANDUM

TO: School Board Members

FROM: Doris Cannon, Director of Elementary Education

THRU: Sean Dusek, Assistant Superintendent of Instruction

DATE: November 30, 2010

RE: **Career and Technical Education Curriculum Adoption**

It is recommended that the Career and Technical education curriculum be approved. Since the worksession presentation on November 1, 2010, the content has been transferred into the new curriculum template based on the recommendations of the curriculum audit.

CAREER AND TECHNICAL EDUCATION

Kenai Peninsula Borough School District

Curriculum Guide
Spring 2011

Kenai Peninsula Borough School District
148 N. Binkley
Soldotna, AK 99669

Dr. Steve Atwater
Superintendent

Sean Dusek
Assistant Superintendent of Instruction

Career Technology Education Curriculum Revision Committee Members

Meggean Bos, Soldotna High School

Emily Sims, Kenai Central High School

Doug Gordon, Soldotna and Skyview High School

Joshua Brege, Homer High School

Darren Jones, Skyview High School

Dan Bohrnsen, Work Force Development

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Tim Vlasak, Director, Secondary Education

Doris Cannon, Director, Elementary Education

CAREER AND TECHNICAL EDUCATION
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Introduction

On September 16, 2010, Superintendent Dr. Steve Atwater held an Employer's Summit with several business community members from numerous occupational areas. As a result of this Summit, recommendations were made to the District which included a need for employability skills to be taught explicitly and to have them embedded in the curriculum. During the revision of the Career and Technical Curriculum, the members developed two courses to explicitly teach the Alaska Employability Standards and also embedded them into the other course offerings. These embedded skills can be found in bold parenthesis next to the objective, ex: Understand the need for safe practices in workplaces. **(A6).**

Philosophy

The Kenai Peninsula Borough School District (KPBSD) will provide a career and technical education to prepare all students to meet the changing demands of society's work force. This program shall contribute to an individual's academic knowledge base, higher-order reasoning ability, problem-solving skills, work attitudes, general employability skills, and provide safe, occupational-specific skills necessary for economic independence as a productive and contributing member of society.

Business and Information Systems

Accounting 1 (BB710) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Business Management
Career Cluster Area: Business, Management and Administration
Source of Occupational Skills Standards: National Business Education Association (NBEA), CAT
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**N**_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB710
Course Description: This course of study is designed to provide students with the fundamental skills needed to understand the basic accounting cycle for a sole proprietorship or partnership for a service business.

Content Headings/Topics:

1. Terminology
2. Career exploration
3. The basic accounting cycle for a sole proprietorship and Service Business
4. Analyzing Transactions into Debit and Credit Parts
5. Recording Transactions in a General Journal
6. Posting from a General Journal to a General Ledger
7. Cash Control Systems
8. Worksheets
9. Financial Statements
10. Recording Adjustments and Closing Entries
11. Journalizing using Special Journals

Accounting 1 (BB710) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
	1. Correctly use terminology related to accounting.		W.4.2			Vocabulary Test Observation
NBEAA V L3-4	2. Classify accounts as assets, liabilities, or owner's equity and demonstrate their relationships in the accounting equation.		R.4.2 W.4.2			Oral exam Labs Assignments
NBEAAI L3-4	3. Identify accounting concepts and practices that affect the accounting equation		R4.2			Pre and Post Test Labs
	4. Investigate careers in accounting. **(B2-5)**		R.4.2			CAT
NBEAAI L3-4	5. Identify accounting concepts and practices related to journalizing transactions		R4.2			Pre and Post Test Labs
NBEAAI L3-4	6. Identify accounting concepts and practices related to posting from a journal to a general ledger		R4.2			Pre and Post Test Labs
NBEAAI L3-4	7. Identify accounting concepts and practices related to preparation of financial statements.		R4.2			Assignments Labs

The Comprehensive Review activity for Accounting I:
At the completion of the Accounting I curriculum the students will work through a five-day simulated accounting experience designed to review and reinforce the student's knowledge of accounting for a service business called "Jim Arnold's Photography Studio." During this simulating the students will work through transactions typically found in a service business. Activities include: Opening accounts, journalizing and posting transactions, preparing a trial balance, completing a worksheet, preparing an income statement, a statement of owner's equity, a balance sheet, journalize and post adjusting and closing entries, and preparing a post-closing trial balance.

Accounting 2 (BB715) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Accounting 1
High School Credit = ½ credit per semester (Postsecondary credit = 3)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Business Management
Career Cluster Area: Business, Management and Administration
Source of Occupational Skills Standards: National Business Education Association (NBEA), CAT
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X__ No OR ___ Yes, and identify Certificate:
Tech Prep: ___ No OR __**X**_ Yes - If Yes, list postsecondary institution and number of postsecondary credits. University of Alaska (Kenai Peninsula College) 3 credits.
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB715
Course Description: This course of study is designed to provide students with the fundamental skills needed to understand the basic accounting cycle for a merchandising business.

Content Headings/Topics:

1. Terminology
2. Internal Cash Control systems
3. Using Special Journals
4. Preparing Payroll Records
5. Inventory systems
6. Payroll Accounting, Taxes, and Reports
7. Preparing a Work Sheet for a Merchandising Business
8. Adjusting and Closing Entries
9. Financial Statements for a Merchandising Business

Accounting 2 (BB715) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
	1. Correctly use terminology related to accounting for a payroll system.		R4.2			Observation Labs and Assignments
NBEAAIL3-4	2. Describe the principles and practices of accounting for payroll system.		R4.2			Pre and Post Test
NBEAAI L3-4	3. Identify accounting concepts and practices related to financial statements for a merchandising business		R4.2			Pre and Post Test Labs
	4. Journalize and post entries related to writing off and collecting uncollectible accounts receivable.		W.4.2			Vocabulary Test Observation
NBEAAVL34	5. Identify accounting concepts and practices related to accounting for plant assets, depreciation, and property tax expense.		R.4.2 W4.2			Oral exam Labs and Assignments
NBEAAI L3-4	6. Differentiate between the periodic inventory system and the perpetual inventory system.		R4.2			Pre and Post Test Labs
	7. Investigate careers in accounting. **(B2-5)**		R4.2			CAT
NBEAAI L3-4	8. Prepare and analyze an income statement for a merchandising business.		W4.2			Pre and Post Test Labs
	9. Identify accounting concepts and practices related to accrued revenue and accrued expenses.		R4.2			Labs and Assignments

The Comprehensive Review activity for Accounting II:
At the completion of the Accounting II curriculum the students will work through a five-day simulated accounting experience designed to review and reinforce the student's knowledge of accounting for a merchandising business called "Mills Sporting Goods Store." During this simulating the students will work through transactions typically found in a merchandising business. Activities include: Opening accounts, journalizing and posting transactions to special journals, preparing a trial balance, completing a worksheet, preparing schedules of accounts receivable and accounts payable, preparing an income statement, a statement of owner's equity, and an income statement, journalize and post adjusting and closing entries.

Commercial Publishing/Yearbook (BB750) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Information Support and Services, Web and digital communications, Business Information Management.
Career Cluster Area: Information Technology, Business Management & administration
Source of Occupational Skills Standards: National Business Education Association (NBEA), International Society for Technology in Education (ISTE) National Educational Technology Standards for Students (NET-S)
Eligibility for Nationally Recognized Skill Certificate(s)/State License:_ No OR **_X__** Yes, and identify Certificate: Adobe Visual Communication Associate.
Tech Prep: _ _ No OR **__X_** Yes - If Yes, list postsecondary institution and number of postsecondary credits Kenai Peninsula College 1 credit
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB750
Course Description: This course will teach students to understand, develop, and use the techniques found in the occupational field of commercial publishing. May be taken for practical or creative arts. Students will produce documents for print, web and/or media rich electronic files. Ready to work skills are necessary to meet publishing deadlines. Elements of layout design and elements of photo composition skills will be developed. May be repeated for credit. Students earning a B or better are eligible for 1 college credit as part of the Tech Prep agreement. Journalism skills will be developed.

Content Headings/Topics:

1. Commercial reporting, writing, revising and editing text
2. Produce publishable page layouts and graphics for a variety of purposes.
3. Apply elements of design for page layouts and graphic design concepts.
4. Apply visual communication techniques for creative and innovative projects.

Commercial Publishing/Yearbook (BB750) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
ISS 8 NET-S 2	1. Use digital media to communicate and work collaboratively for published products.		R4.2			Lab
ISS 8 NET-S 4	2. Select and use multiple strategies, technology, and other resources to solve problems and complete projects independently and cooperatively.		W4.2			Lab Assignment
MBEA 17	3. Demonstrate an ability to use research, reasoning, and reflection to explain the career field by commercial publishing. **(B2-5)**		R4.2			Observation
	4. Develop and demonstrate an awareness of the key role language plays in the transmission of culture.		R4.2			Presentation
NET-S 5 NBEAB12B14	5. Understand digital citizenship as it relates to legal and ethical issues in desktop/web publishing		R4.2			Demonstrate

Computer Animation 1 (BB890) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Information Support and Services **Career Cluster Area**: Information Technology
Source of Occupational Skills Standards: National Business Education Association (NBEA), International Society for Technology in Education (ISTE) National Educational Technology Standards for Students (NET-S)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: **X** No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB890
Course Description: Computer Animation is simply a fun way to introduce FLASH. Understanding FLASH technology will add to students' arsenal of marketable skills. Through this uniquely designed curriculum students will not only gain valuable experience with design software that is an industry standard, but they will also be learning how to succeed in the workplace. Computer Animation is a self-contained curriculum that takes students from the basics of FLASH to creating their own animated commercial. Through a certification process, students will be learning the basics of FLASH animation. Including: Program structure, If/Then Statements, Do Loops, For/Next Statements, Collisions, Textures, Sounds, and Arrays.

Course Content/Topics:

1. Visual storytelling
2. Storyboarding, sketching, color
3. Motion, symbolism, visual composition

Computer Animation 1 (BB890) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
ISS 8 NET-S 2	1. Apply the skills of visual storytelling to communicate common themes and emotions		R4.4			Lab
ISS 8 NET-S 4	2. Understand and demonstrate the use of storyboarding, sketching, and the use of color		R4.2			Lab Assignment
MBEA 17	3. Explain how motion, symbolism, and visual composition affect the storytelling process		R4.2			Observation
	4. Understand and demonstrate the value of visual representation and symbolism		R4.2			Presentation
NET-S 5 NBEAB12B14	5. Prepare an informational or persuasive oral presentation		R4.2 W4.2			Demonstrate
	6. Explain the process of reducing complex situations and themes into universal thought		R4.2			Assignment

Computer Animation 2 (BB895) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Computer Animation 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Information Support and Services
Career Cluster Area: Information Technology
Source of Occupational Skills Standards: National Business Education Association (NBEA), International Society for Technology in Education (ISTE) National Educational Technology Standards for Students (NET-S)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB895
Course Description: Computer Animation 2 takes FLASH® to the next level. Action Script is one of the most widely used programming languages for web-based gaming today. You don't need to be an expert in 2D programming. This uniquely designed curriculum gives students the chance to further develop their FLASH skills by learning the basis of 2D programming. When they're done – every student will have made a web game that can be posted on any site for friends, family, and students to play. Through a certification process, students will be learning: Action Script Basics, Targets and Levels, Concatenating Strings, FOR Loops, Functions and Structure, Mouse Listeners, Collision, and Loading Sounds Dynamically.

Course Content/Topics:

1. Design Process
2. Basic Programming concepts and functions
3. Basic elements designed web game

Computer Animation 2 (BB895) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
ISS 8 NET-S 2	1. Apply the design process to real world problems		R4.2 W4.2			Lab
ISS 8 NET-S 4	2. Understand and demonstrate basic programming concepts and functions		R4.2			Lab Assignment
MBEA 17	3. Explain and demonstrate how to create a story for a web game		R4.2 W4.2			Observation
	4. Understand and demonstrate how to use Action Script programming		R4.2			Presentation
NET-S 5 NBEAB12B14	5. Explain the basic elements of a well designed web game program		R4.2			Demonstrate

Computer Applications 1 (BB765) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Information Support and Services
Career Cluster Area: Information Technology
Source of Occupational Skills Standards: National business Education Association (NBEA)
Eligibility for Nationally Recognized Skill Certificate(s)/State License :X No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB765
Course Description: Computer Applications 1 exposes students the appropriate behaviors and safety in using the internet. Students are introduced to computer hardware and uses of various software programs. Students will learn basic to advanced word processing and uses of the Internet, and be able to integrate skills in all academic subject areas. Students will be prepared for possible Microsoft Word certifications.

Content Headings/Topics:

1. Internet Safety
2. Computer hardware/software overview
3. Beginning to advanced word processing

Computer Applications 1 (BB765) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
NBEAISS.7	1. Describe Cyber Citizenship.		R4.2			Lab
NBEAISS.7	2. Explain the importance of online privacy.		R4.2			Lab
NBEAISS.7	3. Understand the grooming process, online identities, and online relationships.		R4.2			Lab
NBEAISS.7	4. Present the problems associated with the ease of access to pornography on the Internet.		R4.2			Lab
NBEAISS.7	5. Identify definitions of bullying and stalking as they apply to the Internet, rules, laws, and consequences.		R4.2			Lab
NBEAISS.7	6. Explore the concept of willing participation in online relationships with strangers and the roles that predators play.		R4.2			Lab
NBEAISS.7	7. Explain Internet security issues, consequences, and computer security strategies relevant to the spread of malicious code.		R4.2			Lab
NBEAISS.7	8. Identify appropriate use of the Internet and intellectual property by covering the definition of “intellectual property,” related key terminology, rules, laws, and consequences.		R4.2			Lab
NBEAISS.7	9. Identify the essential parts of a computer		R4.2			Lab
NBEAISS.7	10. Describe hardware of a computer.		R4.2			Lab
NBEAISS.7	11. Describe software of a computer and collaborates using online software.		R4.2			Lab
NBEAISS.7	12. Describe networks, internet, intranets and extranets, and telephones		R4.2			Lab
NBEAISS.7	13. Demonstrate basic operations for Windows		R4.4			Lab
NBEAISS.7	14. Demonstrate basic operations of functions of programs.		R4.4			Lab
NBEAISS.7	15. Work with and Edits Text		R4.4			Lab
NBEAISS.7	16. Format characters, paragraphs, and adjusts margins.		R4.4			Lab
NBEAISS.7	17. Create and use tables, document templates, word art, charts, forms, and web page.		R4.4			Lab
NBEAISS.7	18. Create computer animations with Macromedia/Adobe Fireworks.		R4.4			Lab
NBEAISS.7	19. Demonstrate the mail merge process.		R4.4			Lab

Computer Applications 2 (BB770) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Computer Applications 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Information Support and Services
Career Cluster Area: Information Technology
Source of Occupational Skills Standards: National Business Education Association
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB770
Course Description: Computer Applications 2 gives students mastery abilities in Microsoft Excel, PowerPoint, Access. Students will be possible Microsoft Excel and PowerPoint certifications.

Content Headings/Topics:

1. Beginning to advanced spreadsheets
2. Beginning to advanced PowerPoint and other presentation software
3. Intermediate internet/email

Computer Applications 2 (BB770) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
NBEAISS.7	1. Demonstrate understanding of Excel.		R4.4			Lab
NBEAISS.7	2. Enter date values and uses auto complete.		R4.4			Lab
NBEAISS.7	3. Format fonts with the formatting toolbar.		R4.4			Lab
NBEAISS.7	4. Create a chart, list, and Pivot table,		R4.4			Lab
NBEAISS.7	5. Switch between worksheets.		R4.4			Lab
NBEAISS.7	6. Use formulas with several operators and cell ranges.					Lab
NBEAISS.7	7. Record a macro.					Lab
NBEAISS.7	8. Insert an Excel worksheet into a Word document.		R4.4			Lab
NBEAISS.7	9. Add Hyperlinks to a worksheet.					Lab
NBEAISS.7	10. Hide, display, and move toolbars.					Lab
NBEAISS.7	11. Demonstrate understanding of PowerPoint.		R4.2			Lab
NBEAISS.7	12. Insert slides and text.					Lab
NBEAISS.7	13. Utilize bold, italicize, or underline text.					Lab
NBEAISS.7	14. Create computer animations with Macromedia/Adobe Flash programming.		R4.4			Lab
NBEAISS.7	15. Deliver a presentation on a computer.		R4.2			Lab
NBEAISS.7	16. Insert slide into a Microsoft Word document.					Lab

Computer Applications 3 (BB775) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Computer Applications 2
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Information Support and Services
Career Cluster Area: Information Technology
Source of Occupational Skills Standards: National Business Education Association (NBEA)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency? _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB775
Course Description: Computer Applications 3 gives students mastery abilities in electronic database applications. Students will be able to master Microsoft Access and will be prepared for possible Microsoft Access certification. Other topics include advanced web applications, computer science, PC maintenance and networking troubleshooting.

Content Headings/Topics:

1. Advanced spreadsheet applications
2. Advanced web page production
3. Advanced word processing

Computer Applications 3 (BB775) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
NBEAISS.8	1. Correctly demonstrate spreadsheet databases.		R4.4			Lab
NBEAISS.8	2. Identify and correctly demonstrate the use of PowerPoint.		R4.4			Lab
NBEAISS.8	3. Design and produce web pages using frames and/or layers.		R4.4			Lab
NBEAISS.8	4. Understand and use HTML.		R4.4			Lab
NBEAISS.8	5. Demonstrate the necessary skills to obtain Microsoft Excel and PowerPoint certifications.		R4.2			Lab
NBEAISS.8	6. Correctly use graphical software such as Photoshop, Fireworks, Flash, etc.		R4.4			Lab
NBEAISS.8	7. Create advanced animations and use advanced programming with Macromedia/Adobe Flash.		R4.4			Lab

Computer Applications 4 (BB780) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Computer Applications 3
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Information Support and Services
Career Cluster Area: Information Technology
Source of Occupational Skills Standards: National Business Education Association (NBEA)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB780
Course Description: Computer Applications 4 gives students projects performing advanced integration using all software skills (word processing, spreadsheet, presentation, and database skills). Students will be prepared for possible Microsoft Office User certification.

Content Headings/Topics:

1. Integration projects using all software skills (word processing, spreadsheet, presentation, and database skills)

Computer Applications 4 (BB780) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
	1. Demonstrate an understanding of Access basics.		R4.4			Demonstration
NBEAISS.8	2. Correctly build a database.		R4.4			Lab
NBEAISS.8	3. Demonstrate an ability to obtain information from a database.		R4.2			Demonstration
NBEAISS.8	4. Demonstrate the ability to print information from a database.		R4.2			Demonstration
NBEAISS.8	5. Demonstrate mastery in all software skills (word processing, spreadsheet, presentation, and database skills) by using project-based assessments.		R4.2			Demonstration
NBEAISS.8	6. Demonstrate the necessary skills for possible Microsoft Access certification.		R4.2			Demonstration
NBEAISS.8	7. Demonstrate ability in graphical software.		R4.4			Lab
NBEAISS.8	Create advanced animations and use advanced programming with Macromedia/Adobe Flash.		R4.4			Lab

Computer Technician (BB780) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Teacher Approval
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Information and Support Services
Career Cluster Area: Information Technology
Source of Occupational Skills Standards: National Business Education Association (NBEA), CompTIA tech standards, International Society for Technology in Education (ISTE) National Educational Technology Standards for Students (NET-S)
Eligibility for Nationally Recognized Skill Certificate(s)/State License:__ No OR _X_ Yes, and identify Certificate: A+ computer certification
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB780
Course Description: This course is designed to provide students an opportunity to troubleshoot, maintain, and manage computer hardware/software. Students can gain experience for entry level Information Technology careers. Students have the opportunity to work on projects on their own and/or collaborate with others. Students will learn customer service strategies and networking essentials. May be repeated for credit.

Content Headings/Topics:

1. Software management
2. Hardware/peripheral maintenance
3. Computer networking
4. Troubleshooting/problem solving

Computer Technician (BB780) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
NBEA 2,3,5,9 NET-S 1-6	1. Demonstrate an ability to manage computer software: identify, select, evaluate, use, install, upgrade, and customize application software; diagnose and solve problems occurring from software's installation and use.		R4.2, 4.4			Observation / Demonstration
NBEA ISS.2 NET-S 6	2. Correctly maintain computer hardware: diagnose and repair hardware problems.					Observation/ Demonstration
NBEA ISS.6 NBEA 5 NET-S 6	3. Maintain computer network components: identify, select, evaluate, use, customize, diagnose, and solve network problems (wi-fi and hardwired networks)					Observation/ Demonstration
NET-S 1-6	4. Demonstrate an ability to work independently or with others when troubleshooting and problem solving.					Observation/ Demonstration
	5. Perform maintenance on computer equipment safely.		R4.4			Observation/ Demonstration
NBEA NET-S 6	6. Assemble and disassemble PC's.		R4.2, 4.4			Observation/ Demonstration
NBEA	7. Research careers in the IT field. **(B2-5)**		R4.2			Observation/ Demonstration

Desktop Publishing 1 (BB755) Curriculum Guide 9-12 Grades

Prerequisite Course(s): none
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Information Support and Services, web & digital communications
Career Cluster Area: Information Technology
Source of Occupational Skills Standards: National Business Education Association (NBEA), Adobe Visual Communication, International Society for Technology in Education (ISTE) and National Educational Technology Standards for Students (NET-S)
Eligibility for Nationally Recognized Skill Certificate(s)/State License:_ _ No OR _X__ Yes, and identify Certificate: Adobe Certified Associate
Tech Prep: __ No OR _X__ Yes - If Yes, list postsecondary institution and number of postsecondary credits -Kenai Peninsula College 1 credit
Is this course brokered through another institution or agency? _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB755
Course Description: This course is designed to provide students with the fundamental computer and software skills to create visual displays of ideas and information. Projects may be for desktop or commercial printing, or electronic distribution including .pdf,, multi-media presentations, newsletters, 3-panel brochures, etc. Students will use digital media to communicate and work collaboratively to publish print and web documents. May be repeated for credit. Students earning a B or better are eligible for 1 college credit as part of the Tech Prep agreement. Journalism skills will be developed.

Content Headings/Topics:

1. Choose appropriate software for the specific tasks
2. Use page layout software
3. Compare and contrast print versus web publishing
4. Use design principles, elements, and image composition.
5. Use of peripherals, digital cameras, CD/DVD burners, scanners, printers
6. Use of graphic editing software
7. Legal issues for ethics/liability

Desktop Publishing 1 (BB755) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
NBEAISS.16	1. Describe jobs in desktop/web publishing industries.		R4.2			Demonstrate
	2. Compare and contrast appropriate software for the specific task.		R4.2			Demonstrate
Adobe Visual Communication	3. Construct creative projects using elements of design and composition.		R4.4			Demonstrate
NBEAISS.5	4. Demonstrate how to maintain file management for multiple pages and photos		R4.4			Demonstration
	5. Explain terms and principles associated with document creation.		R4.2			Written Exam
NBEAISS.8	6. Demonstrate the use of graphic editing software.		R4.4			Demonstration
NBEAISS.1	7. Demonstrate proficient use of scanners, digital cameras, CD/DVD burners, and printers.		R4.4			Demonstration
NBEAB12B14 NET-S 5	8. Understand digital citizenship as it relates to legal and ethical issues in desktop/web publishing		R4.2			Society of Professional Journalists: Ethics

Desktop Publishing 2 (BB760) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Desktop Publishing 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Information Support and Services, web and digital communications
Career Cluster Area: Information Technology
Source of Occupational Skills Standards: National Business Education Association (NBEA), Adobe Visual Communication, International Society for Technology in Education (ISTE) and National Educational Technology Standards for Students (NET-S)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __No OR _X__ Yes, and identify Certificate: Adobe Certified Associate
Tech Prep: __ No OR _X__ Yes - If Yes, list postsecondary institution and number of postsecondary credits Kenai Peninsula College 1 credit
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB760
Course Description: This course is designed to expand and refine the basic skills learned from Desktop Publishing 1 in order to prepare students for job-entry in the electronic desktop publishing field. Students will be taught skills needed to integrate text and graphics using graphic design and electronic page assembly software to produce professional-quality publications. May be repeated for credit. Students earning a B or better are eligible for 1 college credit as part of the Tech Prep agreement. Journalism skills will be developed.

Content Headings/Topics:

1. Choose appropriate software for specific tasks
2. Use page layout/document creation
3. Compare and contrast print versus web publishing
4. Use design principles and elements of composition for digital photos
5. Use peripherals, digital cameras, CD/DVD burners, scanners, printers
6. Use of graphic editing software
7. Legal issues for ethics/liability

Desktop Publishing 2 (BB760) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
NBEAISS.8	1. Use desktop publishing software to design, create, and import data / graphics / scanned images to format a variety of publications.		R4.4			Lab Assignments
NBEAISS.1, 8	2. Use critical thinking skills to choose appropriate digital tools for specified tasks.		R4.2			Written Exams
NBEAISS.8	3. Describe, identify, and apply design principles for web/desktop publishing projects.		R4.2, 4.4			Demonstrate
NET-S 3	4. Use digital tools to gather, evaluate and use information		R4.2			Demonstrate
	5. Explain the meaning of common desktop publishing terms.		R4.2			Written Exams
NET-S 1	6. Use advanced editing tools for creating innovative pages/graphics.		R4.4			
NBEAISS.4	7. Organize and maintain multiple page files, graphics in individual storage space and shared server space.		R4.4			Demonstrate
NBEA B12 & B 14 NET-S 5	8. Understand digital citizenship as it relates to legal and ethical issues in desktop/web publishing		R4.2			Written exam

Digital Photography 1 (AA795) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year Also offered for 1 quarter as a Middle School class
Pathway (Optional): Arts and Communication
Career Cluster Area: Arts and Communication
Source of Occupational Skills Standards: Content and Performance Standards are coded to Alaska Student Standards Booklet, February 2000, Alaska Dept. of Ed and Early Development, http://www.eed.state.ak.us/standards/pdf/StandardsBook.pdf (link no longer available)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: AA795
Course Description: This course introduces the student to the use of photo editing software. Using digital cameras, scanners, and a variety of digital media will be explored. Students will create projects using photo editing software.

Content Headings/Topics:

1. Camera functions, types, and components
2. Careers in digital media
3. Photo editing fundamentals
4. Printing and presentation techniques

Digital Photography 1 (AA795) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
ONET.26	1. Demonstrate the fundamentals of Photo Editing software.		R4.4			Project Based
V7006 FF.1-13	2. Utilize color cast and matching, hue, shift and colorize, auto corrections and levels, curves, shadows and highlights, adjustment layers, and camera raw.		R4.4			Project Based
	3. Select, paint and edit by selection basics, smart selections, working with brushes, doge, burn smudge and sponge, clone, heal and patch, replacing colors.		R4.4			Project Based
	4. Utilize layers, links, sets and comps, opacity and blend mode, layer styles, masks and channels, working with spot colors.		R4.4			Project Based

Digital Photography 2 (AA800) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Digital Photography 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Arts and Communication
Career Cluster Area: Arts and Communication
Source of Occupational Skills Standards: Content and Performance Standards are coded to Alaska Student Standards Booklet, February 2000, Alaska Dept. of Ed and Early Development, http://www.eed.state.ak.us/standards/pdf/StandardsBook.pdf (link no longer available)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: __ No OR __X_ Yes - If Yes, list postsecondary institution and number of postsecondary credits Kenai Peninsula College 3 credit upon completion of photo 1 & 2 with a B or better.
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: AA800
Course Description: This is an intermediate course designed for students who have successfully completed one semester of Digital Photography 1. This course requires increasingly complex photography and computer software editing assignments. Portfolios will be developed.

Content Headings/Topics:

1. Camera functions, types, and components
2. Careers in digital media
3. Intermediate Photo editing:
4. Advanced layering techniques.

Digital Photography 2 (AA800) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
	1. Utilize filters and distortions: by simulating sharper focus, blurring and averaging, and masks, painting with filters, liquefy, and layers.		R4.4			Lab
	2. Utilize test, vectors and output: Type basics, Specialty type, editable type effects, vector based shapes, panoramas and slideshow, printing and packaging		R4.4			Lab
	3. Develop a portfolio.					Project
	4. Research careers in the field. **(B2-5)**		R4.2			Assignment

Digital Storytelling Curriculum Guide 6-8 Grades

T**his course will be offered**: as a middle school course
Pathway (Optional): Arts and Communication
Career Cluster Area: Arts and Communication Services
Source of Occupational Skills Standards: Florida DOE (Industrial) RTVG
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X__ No OR ___ Yes, and identify Certificate:
Tech Prep: _X__ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency:_X__ No OR ___ Yes, and list institution/agency:

Course Description: Students will explore the field of broadcast and cable television while practicing journalistic skills. This is a middle school course.

Content Headings/Topics:

1. Safe practices
2. Equipment
3. Employment
4. Ethics
5. Written and oral presentations
6. Professionalism
7. Cultures
8. Visual, oral, and written qualities
9. Quality
10. Media literacy

Digital Storytelling Curriculum Guide 6-8 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
RTVG 01.02, 01.05	1. Demonstrate safe practices while using electrical equipment in the classroom and the field. **(A6)**		R.4.4			In Classroom
RTVG 04.05, 6.05.03, 08.05, 12.03	2. Read assigned technical manuals and learn the proper use for all equipment used in video production and their particular applications.		R.4.4			Project Based
RTVG 18.04, 26.01-02	3. Exhibit ethical conduct in issues relating to content, copyrights, and personal and professional decisions in the field of television or video production. **(A1)**		W.4.5			Follow Classroom Procedures
RTVG 12.01, 20.02, 22.02, 16.01-05, 18.01-18.04	4. Demonstrate written and oral presentation skills for video production, both in the classroom and the field.		R.4.2, 4.4 W.4.2, 4.3			Project Based
RTVG 15.07	5. Demonstrate industry standards of professionalism in effort and conduct including scripts, storyboards, timelines, personal appearance, and behavior in video productions.		W.4.2			Project Based
	6. Demonstrate an understanding and appreciation of local and global cultures as they relate to video production.		R.4.2 W.4.2			Project Based
	7. Identify video formats. Provide technical support, camera related activities, and lighting activities for video projects. Digitize and edit video. Demonstrate knowledge of audio production and editing.					Project Based
RTVG12.0	8. Identify and analyze the visual, oral, and written qualities of assigned video productions.		R.4.4 W.4.2			Project Based
RTVG15.07	9. Demonstrate by viewing a television or video production and analyze, interpret, evaluate, and critique the quality of the finished product.		W.4.2			Critique

Employability Skills 1 (II930) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional):
Career Cluster Area:
Source of Occupational Skills Standards:
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II930
Course Description: Employability Skills is an introductory course designed to prepare the user for entering the workplace. You learn business etiquette, communications skills, the job search process, effective work habits and how to be effective in the workplace. This is a required pre requisite for the CNA Training Course and is helpful for all Career Pathways.

Content Headings/Topics:

1. Job search skills
2. Work habits
3. Business etiquette
4. Workplace effectiveness
5. Communication skills

Employability Skills 1 (II930) Curriculum Guide 9-12 Grades

State Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
A1	Develop and maintain a work ethic necessary for success in the workplace that includes honesty, integrity, dependability, punctuality, self discipline, initiative, reliability, accuracy, productivity, respect, and perseverance.					Project Based
A2	Understand how to apply skills and academic knowledge in a variety of work settings.		R4.2			Project Based
A3	Understand the process for seeking employment including résumé development, application completion, interview skills, and appropriate dress.		R4.2 W4.2			Project Based
A6	Understand the need for safe practices in workplaces.					Project Based
A7	Understand employer and employee rights and responsibilities.		R4.2			Project Based
B1	Identify and appreciate personal interests, aptitudes, abilities, and priorities.		W4.2			Project Based
B2	Identify possible career options, considering both employment and self employment, and understand how changes in the workplace affect career choice.		R4.2 W4.2			Project Based

Employability Skills 2 (II935) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Employability Skills 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional):
Career Cluster Area:
Source of Occupational Skills Standards:)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II935
Course Description: Employability Skills 2 is continuation of the skills learned in course 1 designed to prepare the user for entering the workplace. You learn business etiquette, communications skills, the job search process, effective work habits and how to be effective in the workplace. This course will focus on the same topics as Employability Skills 1 but will focus more on the hands on approach. Students will practice interview skills, learn specifics related to specific job requirements. Students may have an opportunity to job shadow in an area of interest.

Content Headings/Topics:

1. Job search skills
2. Work habits
3. Business etiquette
4. Workplace effectiveness
5. Communication skills

Employability Skills 2 (II935) Curriculum Guide 9-12 Grades

State Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
A1	Develop and maintain a work ethic necessary for success in the workplace that includes honesty, integrity, dependability, punctuality, self discipline, initiative, reliability, accuracy, productivity, respect, and perseverance		R4.2 W4.2			Project Based
A3	Understand the process for seeking employment including résumé development, application completion, interview skills, and appropriate dress.		R4.2 W4.2			Project Based
A4	Understand the process for developing self-employment opportunities including marketing studies, business plan development, and managing business finances.		R4.2 W4.2			Project Based
A5	Understand how an individual job fits into the overall organization and how the organization fits into the overall economy.		R4.2 W4.2			Project Based
B3	Use labor market information to identify occupational and economic trends and opportunities, and evaluate possible career options.		R4.2 W4.2			Project Based
B4	Identify education and /or training needed for career options and advancement, and develop a career plan.		R4.2 W4.2			Project Based
B5	Identify resources available to support education and training related to career possibilities.		R4.2 W4.2			Project Based

Keyboarding Curriculum Guide 6-8 Grades

This course will be offered: as a Middle School course
Pathway (Optional): Administrative and Information Support
Career Cluster Area: Business, Management and Administration
Source of Occupational Skills Standards: National Business Education Association (NBEA)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: **_X_** No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Description: Keyboarding is an introductory course that gives students the opportunity to gain an overview of the operation of the computer and word-processing software. In addition, proper keyboarding proficiency skills will be a primary focus for the course.

Content Headings/Topics:

1. Basic computer operating system
2. Identify hardware/software components of computer
3. File server access
4. Save files
5. Manage files and folders
6. Print
7. Word processing/formatting
8. Keyboarding technique
9. Keyboarding speed
10. Basic spreadsheet functions/charting
11. Narrow an Internet search
12. Career opportunities
13. Paint
14. Draw
15. Multimedia presentation software

Keyboarding Curriculum Guide 6-8 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
	1. Turn computer on/off.					
	2. Access/save to a local hard drive and file server (if possible).		R3.6			Lab Assignment
	3. Create folders.		R3.6			Lab Assignment
	4. Open/save word-processing software document.		R3.6			Lab Assignment
	5. Understand basic tab settings.		R3.6			Lab Assignment
	6. Print, choosing a printer.		R3.6			Lab Assignment
	7. Edit, copy, and paste text and graphics.		R3.6			Lab Assignment
	8. Utilize spell check/thesaurus features.		R3.6			Lab Assignment
NBEA ISS.7	9. Identify proper keyboarding technique.					Observation
NBEA ISS.7	10. Increase keyboarding speed and accuracy.					Pre / Post Test
NBEA ISS.9	11. Find/utilize an Internet search engine.		R3.6			Lab Assignment
	12. Explore different computer career opportunities. **(B2)**		R3.6			Lab Assignment

Marketing 1 (BB795) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Marketing
Career Cluster Area: Business, Management and Administration
Source of Occupational Skills Standards: National Business Education Association (NBEA)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: X No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB795
Course Description: This course introduces students to marketing occupations. Course content includes business operations, product distribution, marketing communications skills, product display, cash register operations, inventory, and career education.

Content Headings/Topics:

1. Employment skills
2. Marketing skills
3. Merchandising
4. Consumer services
5. Salesmanship
6. Advertising

Marketing 1 (BB795) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
NBEAMS.1	1. Identify career choices and employment opportunities.		R4.4 W4.2			Lab Assignments
	2. Prepare for employment in marketing related careers.		R4.4 W4.2			Lab Assignments
NBEAMS.1	3. Understand the role of marketing in the free enterprise system.		R4.4 W4.2			Lab Assignments
NBEAMS.1	4. Identify different economic systems and any associated problems.					Pre / Post Test
	5. Use marketing terms and other vocabulary associated with competition.		R4.4 W4.2			Lab Assignments
NBEAMS.6	6. Identify the role of management in marketing and managerial functions.					Pre / Post Test
NBEAMS.6	7. Understand the marketing concept and apply supply/demand principles.		R4.4 W4.2			Lab Assignments
NBEAMS.3	8. Identify channels of distribution in marketing.		R4.4 W4.2			Lab Assignments
NBEAMS.7	9. Use appropriate selling procedures and methods to influence the buyer.		R4.4 W4.2			Lab Assignments
NBEAMS.7	10. Develop a merchandising plan.		R4.4 W4.2			Lab Assignments
NBEAMS.6	11. Identify factors influencing consumer buying.					Pre / Post Test
	12. Calculate product turnover.		M1.4.1			Pre / Post Test
NBEAMS.7	13. Complete various business forms.		R4.4 W4.2			Lab Assignments
NBEAMS.7	14. Stock, reorder, restock, and inventory merchandise.		R4.4 W4.2			Lab Assignments
NBEAMS.7	15. Calculate product prices, markups and markdowns, stock sales ratios, and the break-even point for a business.		M1.4.1 M3.4.5			Lab Assignments
NBEAMS.7	16. Apply credit principles.		M1.4.1			Lab Assignments
	17. Use terms basic to retailing.		R4.4 W4.2			Lab Assignments

NBEAMS.2	18. Identify brand names and trademarks.		R4.4			Pre / Post Test
NBEAMS.7	19. Identify functions of product packaging.					Pre / Post Test
NBEAMS.4	20. Identify important skills of selling and the steps of a sale.					Pre / Post Test
NBEAMS.4	21. Promote products and services.		R4.4 W4.2			Lab Assignments
NBEAMS.4	22. Use several types of sales approaches.					Lab Assignments
NBEAMS.1	23. Analyze the major purposes of advertising.		R4.4 W4.2			Lab Assignments
NBEAMS.1	24. Identify various types of media advertising.		R4.4 W4.2			Lab Assignments
NBEAMS.7	25. Plan and prepare an advertisement layout.		R4.4 W4.2			Lab Assignments
NBEAMS.7	26. Plan a business promotion.		R4.4 W4.2			Lab Assignments
	27. Identify jobs in advertising.		R4.4 W4.2			Lab Assignments

Marketing 2 (BB800) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Marketing 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Marketing
Career Cluster Area: Business, Management and Administration
Source of Occupational Skills Standards: National Business Education Association
Eligibility for Nationally Recognized Skill Certificate(s)/State License: X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB800
Course Description: Advanced skills of salesmanship, advertising and display, store operations and management, and human relations will be taught. For those schools that are equipped, the operation and maintenance of a student store may be included.

Content Headings/Topics:

1. Employment skills
2. Marketing skills
3. Merchandising
4. Consumer services
5. Salesmanship
6. Advertising

Marketing 2 (BB800) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
	1. Demonstrate successful employability skills. **(A1-7, B1-5)**		R4.2			Demonstration
	2. Demonstrate appropriate human relations skills. **(A1)**		W4.2			Demonstration
	3. Demonstrate basic communications skills.					Demonstration
	4. Apply mathematical skills unique to marketing.					Lab Assignment
NBEAMS.1	5. Describe and demonstrate basic economic principles.		W4.2			Demonstration
NBEAMS.1	6. Describe and demonstrate basic marketing principles.		W4.2			Demonstration
NBEAMS.4	7. Demonstrate selling techniques and procedures.		W4.2			Demonstration
NBEAMS.4	8. Describe and demonstrate marketing operational techniques.		W4.2			Demonstration
NBEAMS.4	9. Apply sales promotion techniques and procedures to the marketing of products.					Lab Assignment
	10. Utilize technology and information related to product and service technology.		W4.2			Lab Assignment
NBEAES.1	11. Describe, demonstrate, and apply the skills needed to be a successful entrepreneur.					Demonstration

Marketing 3 (BB805) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Marketing 1 & 2
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Marketing
Career Cluster Area: Business, Management and Administration
Source of Occupational Skills Standards: National Business Education Association
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB805
Course Description: Advanced skills of salesmanship, advertising and display, store operations and management, and human relations will be taught. For those schools that are equipped, the emphasis of this course is on the operation and maintenance of the student store.

Content Headings/Topics:

1. Advertising and display
2. Store operations management
3. Human relations

Marketing 3 (BB805) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
NBEA MS.7	1. Identify the steps in starting a business.		R4.2			Pre / Post Test
	2. Identify major areas of retailing.		R4.2			Pre / Post Test
NBEA ELS.1	3. Understand the laws governing business transactions.					Pre / Post Test
	4. Apply financial skills for operating a business.					Lab Assignment
	5. Understand managerial functions and principles.					Pre / Post Test
	6. Understand union and non-union involvement.					Pre / Post Test
	7. Apply hiring practices and procedures.					Lab Assignment
	8. Apply methods of problem solving.					Lab Assignment
	9. Identify how human values affect behavior.		R4.2			Pre / Post Test
	10. Demonstrate appropriate human relations behaviors.					Lab Assignment
NBEA MS.8	11. Plan displays and create signs and selling aids.		W4.2			Lab Assignment
NBEA MS.8	12. Identify the principles and patterns of display.		R4.2			Pre / Post Test

Marketing 4 (BB810) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Marketing 1, 2, & 3
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Marketing
Career Cluster Area: Business, Management and Administration
Source of Occupational Skills Standards: National Business Education Association
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB810
Course Description: Students will refine the skills they acquired in Marketing 1, 2, and 3. They will continue to apply human relations skills, store organization principles, business philosophies, finance and inventory control measures, business communications techniques, and channels of distribution of merchandise. For those schools equipped, the operation and maintenance of the student store may be included.

Content Headings/Topics:

1. Advertising and display
2. Store operations
3. Management
4. Human relations

Marketing 4 (BB810) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
NBEA MS.1	1. Identify various channels of distribution for consumer and industrial marketing.					Pre / Post Test
	2. Apply procedures necessary for inventory control.		ME1.4.1 ME1.4.2			Lab Assignment
	3. Demonstrate proper business communications and etiquette.		W4.3			Lab Assignment
NBEA MS.8	4. Apply sales promotion techniques and procedures to the marketing of products.		W4.3			Lab Assignment
NBEA MS.4	5. Develop advertising promotions.					Lab Assignment
NBEA MS.4	6. Demonstrate the principles of psychology as related to selling.					Lab Assignment
NBEA MS.8	7. Demonstrate merchandise display techniques.					Lab Assignment
NBEA MS.7	8. Develop business plans.					Lab Assignment
	9. Demonstrate management skills and techniques.					Lab Assignment
NBEA MS.7	10. Demonstrate marketing strategies and create a plan for financing the management skills for operating a small business.		ME1.4.1 ME1.4.2			Lab Assignment
NBEA BLS.1	11. Identify the legal requirements for the operation of a small business.		R4.10			Pre / Post Test

Software Design 1 (BB880) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Information Support and Services
Career Cluster Area: Information Technology
Source of Occupational Skills Standards:
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: BB880
Course Description: Software Design introduction to programming and is a self-contained, self paced curriculum that takes students from zero-to-programming. Through self-directed tutorials, students will be learning the basics of programming like: Program structure, If/Then Statements, Do Loops, For/Next Statements, Collisions, Textures, Sounds, and Arrays.

Course Content/Topics:

1. Design process
2. Basic programming
3. Basic elements

Software Design 1 (BB880) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
ISS 8 NET-S 2	1. Apply the design process to real world problems.					Lab
ISS 8 NET-S 4	2. Understand and demonstrate basic programming concepts and functions.		W4.2			Lab Assignment
MBEA 17	3. Locate objects using the rectangular coordinate system.					Observation
	4. Understand and demonstrate how art, programming and story all come together in game design.		R4.2			Presentation
NET-S 5 NBEA B12 B14	5. Prepare an informational or persuasive oral presentation.		R.4.2 W4.2			Demonstrate
	6. Explain the basic elements of a well-designed video game program.		R4.2			

Human Services

Certified Nursing Assistant (HH770) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Algebra
High School Credit = ½ credit per semester (Postsecondary credit = 4)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Health Services
Career Cluster Area: Health Science
Source of Occupational Skills Standards: (NHCSS) National Health Care Skill Standards
Eligibility for Nationally Recognized Skill Certificate(s)/State License: ___ No OR _**X**_ Yes, and identify Certificate: Certified Nursing Assistant - CNA
Tech Prep: ___ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits: Kenai Peninsula College – 4 cr.
Is this course brokered through another institution or agency:___ No OR _**X**_ Yes, and list institution/agency: Kenai Peninsula College

Course Master Number: HH770
Course Description: This course meets the educational requirements for certification of a CNA in the state of Alaska. Areas covered include safety, communication skills, growth and development, patient surgery preparation, vision and hearing problems, rehabilitation, care of the elderly, common health problems, sexuality, home health care, and basic emergency care. Students mastering the competencies of this course should be well prepared to take and pass the examination of Nursing Assistant Certification. Six 8-hour days of clinical work and weekly skills labs are required.

Content Headings/Topics: HH770

1. Read and write
2. Mathematical operations
3. Terminology
4. Sciences
5. Communication
6. Technology
7. Employability skills
8. Critical thinking skills
9. Career options
10. Legal responsibilities
11. Confidentiality
12. Ethical practices
13. Standard and transmission based precautions
14. Safe work practices
15. Teamwork

Certified Nursing Assistant (HH770) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
NHCSS Core .04	1. Understand how specific careers addressed in this course fit within all aspects of the health occupations industry.		M: E1.4.2			FCCLA Skills Basic Health Care Skills
NHCSS Core .08	2. Assist nurses as an efficient member of a health care team.		M: C1.4.3 SC 5			FCCLA Skills
NHCSS Core .02	3. Demonstrate appropriate personal care for the physical and emotional needs of patients.		R4.4, 4.6 W4.2, 4.4			FCCLA Skills Basic Health Care Skills
NHCSS Core .02	4. Use positive communication skills.		R4.4, 4.6 W4.2, 4.4			FCCLA Skills Basic Health Care Skills
NHCSS Core .05	5. Demonstrate knowledge of legal, ethical, and confidentiality issues in health care.					
NHCSS Core .07	6. Prevent injury or illness through safe work practices.					Skills USA: Basic Health Care Skills
NHCSS Core .01	7. Apply knowledge of life sciences.		R4.4			
NHCSS Core .07	8. Be knowledgeable of preventive health behaviors.		R4.4, 4.6 SB 6			
NHCSS Core .01	9. Read and write charts of health care using medical terminology.		R4.5ab, 4.6, 4.9, 4.10 W3.6, 4.1, 4.4 M: C1.4.2			
NHCSS Core .04	10. Be aware of the history of health care and the current health care system.		M: E1.4.2			FCCLA Skills Basic Health Care Skills
NHCSS Core .04	11. Demonstrate personal employability skills such as attendance, time management, and individual responsibility.					FCCLA Skills Basic Health Care Skills
NHCSS Core .08	12. Develop teamwork and problem solving strategies.		M: C1.4.3 SC 5			FCCLA Skills
NHCSS Core .06	13. Implement interpersonal skills involved in working with and for others of diverse backgrounds.		LA: B3,E S: B5			FCCLA Skills

Child Development 1 (HH750) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Health
High School Credit = ½ credit per semester (Postsecondary credit = 4)
This course will be offered: **_X_** every year? OR ___ every other year?
Pathway (Optional): Health Science, Human Services, Education
Career Cluster Area: Health Science, Human Services
Source of Occupational Skills Standards: Alaska Family and Consumer Science (AKFCS), American Association of Family and Consumer Science.
Eligibility for Nationally Recognized Skill Certificate(s)/State License:_ No OR **_X_** Yes, and identify Certificate: Child Development Associate (CDA)
Tech Prep: ___ No OR **_X_** Yes - If Yes, list postsecondary institution and number of postsecondary credits Kenai Peninsula College – 4 credits. Must be combined with Child Development 2.
Is this course brokered through another institution or agency:___ No OR **_X_** Yes, and list institution/agency: Kenai Peninsula College

Course Master Number: HH750
Course Description: This course examines personal readiness in regard to working with children. Students will be exposed to life situations already encountered and dealt with by others. They will learn how children develop physically, cognitively, and socially, and emotionally, from preconception to age 4. They will learn from a wide variety of situations. These include simulation, interaction with people and children, and visiting local businesses .
Content Headings/Topics:

1. Rewards and challenges of parenting
2. Contraceptive Options
3. Pregnancy: including body changes, nutrition, birth defects
4. Prenatal development
5. Birth/Newborn: this includes options
6. Development of infants
7. Development of toddlers
8. Development of preschoolers
9. Children with special needs
10. Substitute care
11. Careers when working with children

Child Development 1 (HH750) Curriculum Guide 9-12 Grades

Standard AKFCS	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
6.1, 12.1, 12.2, 12.3, 13.6, 15.1	1. Access sources of parenting information, support, and assistance.					Research, Pair/Share
12.2, 6.1, 6.2	2. Examine Human Reproduction		R4.2			Presentation
12.2, 6.1, 6.2, 15.1, 15.4	3. Describe healthy care during pregnancy and environmental hazards to avoid.		R4.2			Journals using Rubric
13.2, 15.4, 15.3, 15.2, 15.1	4. Discuss the usual activities / procedures affecting both newborn and mother during birth and the period following.		R4.2			Assignment using Real Care Baby
12.1, 12.2, 12.3	5. Chart the physical, emotional, social, and intellectual development of infant.		W4.2			Oral Presentation
12.1, 12.2, 12.3	6. Chart the physical, emotional, social, and intellectual development of toddler.		W4.2			Lab Assignment
12.1, 12.2, 12.3	7. Chart the physical, emotional, social, and intellectual development of preschoolers.		W4.2			Lab Assignment
12.1, 12.2, 12.3, 15.1	8. Describe and implement develop-mentally appropriate activities for infants, toddlers, and preschoolers.		R4.2, 4.4			Week Plan for running daycare
12.1, 12.2, 12.3, 15.1	9. Determine practices related to nutrition, safety, and sanitation that promote a healthy and safe environment for children.		R4.2			Pre and Post Test
12.1, 12.2, 12.3, 13.1, 15.1, 15.2, 15.3	10. Describe ways to address the needs and enhance the development of exceptional children who require special services.		R4.2			Pre and Post Test
13.1, 13.2,13.3, 15.2, 15.3	11. Analyze the various types of substitute care available for children.		R4.2			Pre and Post Test
13.5,8.7, 15.1, 15.2, 15.3	12. Research career opportunities, education, and training needed for various childcare careers.		R4.2, W4.2			Research Paper

Child Development 2 (HH755) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Child Development 1
High School Credit = ½ credit per semester (Postsecondary credit = 4)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Early Childhood Development & Services
Career Cluster Area: Human Services
Source of Occupational Skills Standards: Alaska Family and Consumer Sciences (AKFCS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: ___ No OR _**X**_ Yes, and identify Certificate: Child Development Associate (CDA)
Tech Prep: ___ No OR _**X**_ Yes - If Yes, list postsecondary institution and number of postsecondary credits Kenai Peninsula College – 4 credits
Is this course brokered through another institution or agency:___ No OR _**X**_ Yes, and list institution/agency: Kenai Peninsula College

Course Master Number: HH755
Course Description: This course focuses on identifying skills that are necessary for qualified childcare professionals. Field trips and working directly with children are an integral part of this course.

Content Headings/Topics:

1. Childcare profession
2. Child growth and development
3. Operating a childcare center
4. Job skills
5. Curriculum planning for preschoolers
6. Childcare challenges
7. Childcare careers

Child Development 2 (HH755) Curriculum Guide 9-12 Grades

Standard AKFCS	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
E7	1. Determine what the training and education requirements are for careers in the childcare profession. **(B4)**		R4.2			Research
	2. Identify factors that promote quality in a childcare program.		R4.2			Procedure
A3	3. Distinguish between physical, social, emotional, and intellectual development.		R4.2			Chart
A3	4. Chart development stages of infants, toddlers, and preschoolers.		W4.2			Chart
A4	5. Provide appropriate guidance for children according to their developmental levels.					Brochure
	6. Explore and discuss various philosophies in childhood programs.		R4.10			
	7. Differentiate between various learning centers and choose appropriate equipment, materials, and toys.		R4.10			Lab Assignment
H8	8. Assess health procedures used in a childcare program.		R4.4			Lab Assignment
	9. Evaluate schedules, routines, and transitions observed in childcare settings.		R4.4			Lab Assignment
A8	10. Plan balanced menus for young children, along with nutrition education activities.		R4.4 W4.2			Oral Report lab Assignment
E4	11. Work effectively with co-workers as a team. **(A1, 5)**					Lab Assignment
A4	13. Create and lead age-appropriate lesson plans for art, language, dramatic play, social studies, music and movement, science/math, & activities for active play.		R4.4 W4.2			Oral Report Lab Assignment
A5	14. Outline ways to adapt a childcare program to meet special needs.		W4.2			Lab Assignment
	15. Suggest ways to communicate effectively with parents.		R4.2			Oral Report
E9	16. Locate sources of job possibilities in the childcare profession. **(B2)**		R4.2			Lab Assignment
E10	17. Write an effective letter of application and resume. **(A3)**		W4.2			Lab Assignment

Consumer Education (HH705) Curriculum Guide 9-12 Grades

Formerly Family and Consumer Science Exploration
Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: **_X_** every year? OR ___ every other year? Also available as a Middle School course
Pathway: Business Management, Human Services
Source of Occupational Skills Standards: American Association of Family and Consumer Science Education
Eligibility for Nationally Recognized Skill Certificate(s)/State License: **_X_** No OR ___ Yes, and identify Certificate:
Tech Prep: **_X_** No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency? _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH705
Course Description: This course represents many disciplines including career skills, consumer science, nutrition, parenting, human development, interior design, clothing maintenance, economics as well as other related subjects.

Content Headings/Topics:

1. Foods/Nutrition
2. Clothing
3. Consumer/Career Skills
4. Housing/dDesign
5. Child Development

Consumer Education (HH705) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
9.3, 9.4, 1.2	1. Evaluate the basic concepts of nutrition					Pre / Post Test
8.2, 9.2, 14.4, 1.2	2. Describe and use food kitchen safety guidelines. **(A6)**		R4.2			Demonstration
8.3, 2.1, 1.1, 1.2	3. Identify kitchen tools and equipment and their uses.		R4.2			Demonstration
8.4, 8.5, 8.6,9.3, 9.6, 1.1,1.2	4. Demonstrate professional food preparation methods		R4.4			Lab assignment
8.4, 8.5, 1.1, 1.2, 2.1	5. Read and follow recipes using correct measuring.		R4.4			Lab assignment
16.4, 1.1, 1.2	6. Demonstrate methods to alter or repair apparel		R4.4			Lab
16.2, 1.2,	7. Assess effects of textiles characteristics on design, construction, care, use and maintenance of products		R4.2			Pre / Post Test
16.3, 1.2	8. Examine the ways fabric, texture, and pattern can affect visual appearance.					Discussion with rubric
1.2, 1.1, 1.2, 2.1, 2.6, 3.3, 7.1	9. Demonstrate job seeking/job keeping skills. **(A1-3)**					Simulation
2.1, 1.1, 1.2, 2.1, 2.3, 2.6, 3.3	10. Demonstrate management of individual and family resources.					Simulation
2.2, 1.1, 1.2, 2.1, 3.4	11. Analyze the relationship of the environment to resources		R4.2			Simulation
2.5, 2.6, 3.3, 3.5, 1.2, 2.1, 2.6	12. Identify influences on buying decisions and learn how to comparison-shop.		R4.2			Pre / Post Test
2.6, 3.3, 3.5, 1.1, 1.2, 2.1, 2.4	13. Apply consumer skills and resources.					Pre / Post Test
11.2, 11.3, 1.2, 2.1	14. Identify design concepts including elements and explain their use.		R4.2			Pre / Post Test
11.3, 11.4, 1.1-2	15. Apply housing knowledge and skills to meet needs					Pre / Post Test
4.2, 15.1, 1.2	16. Describe early child development		R4.2			Pre / Post Test
4.5, 15.3, 1.1, 1.2, 4.4	17. Describe techniques for positive collaborative relationships with children.		R4.2			project
15.1, 15.3, 1.1, 1.2, 2.1, 4.2	18. Analyze roles and responsibilities of parenting		R4.2			Simulation
15.2, 1.2, 4.1,	19. Describe how to care for infants, toddlers, and preschoolers.		R4.2			Simulation

Culinary Arts 1 (HH735) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Foods 1 and 2
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Restaurants and Food/Beverage Services
Career Cluster Area: Hospitality & Tourism
Source of Occupational Skills Standards: Alaska Family and Consumer Science (AKFCS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License:__ No OR _X__ Yes, and identify Certificate: Alaska Food Workers Card
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH735
Course Description: This course is designed to introduce students to occupational food service. Emphasis is placed on learning and practicing job and work place skills.

Content Headings/Topics:

1. Workplace skills
2. Safety and sanitation
3. Standardized quantity recipes
4. Weights and measures
5. Portion and cost control
6. Recipe adjustment
7. Menu planning
8. Table setting and service
9. Quantity food preparation
10. Product evaluation
11. Food service industry
12. Career exploration

Culinary Arts 1 (HH735) Curriculum Guide 9-12 Grades

Standard AKFCS	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
E3 NFACSE1.2	1. Describe and model effective workplace skills: communication, decision making, collaboration, team building, and problem solving.					Lab Assignments
C7 NFACSE8.2	2. Explain the causes of food-borne illnesses and ways to prevent them.					Presentation
C7 NFACSE8.2	3. Practice correct sanitation and safety procedures.					Lab Assignment
C10	4. Define and identify the advantages of a "standardized recipe."					Pre / Post Test
C10 NFACSE8.4	5. Identify, describe, and model the parts of a standardized quantity recipe and how to use it.					Pre / Post Test
C10 NFACSE8.4	6. Identify the measures of volume and weight and the equipment used for each.					Pre / Post Test
C10 NFACSE8.4	7. Describe and model the correct ways to measure and weigh ingredients accurately.					Pre / Post Test Lab
C10 NFACSE8.4	8. Discuss why portion control is important and some problems that may occur due to a lack of it.					Classroom Discussion
C10 NFACSE8.4	9. Describe and model correct food portioning methods.					Pre / Post Test Lab
C10 NFACSE8.4	10. Calculate food costs accurately.					Lab Assignment
C10 NFACSE8.4	11. Adjust recipes accurately.					Lab Assignment
C10 NFACSE8.4	12. List the typical meal patterns and explain the basic principles of planning them.		W4.2			Classroom Discussion
C10	13. Prepare a luncheon menu.		W4.2			Lab
C10 NFACSE8.4	14. Describe and model how to set and serve a luncheon and dinner table.		R4.4			Pre / Post Test Assignment
C10 NFACSE8.5	15. Describe and model quantity food preparation techniques.		R4.4			Pre / Post Assignment
C10	16. Explain why good organization and a time schedule are very important in food production.		R4.2			Oral Presentation
C10	17. Prepare a time schedule for the preparation of one meal.		W4.2			Lab Assignment

C9	18. Explain the importance of food product evaluation.		R4.2			Oral Presentation
C10	19. Describe, model, and peer teach quantity food preparation techniques.		W4.2			Lab Assignment
C10 NFACSE8.1	20. List and define the major types of food service operations.		W4.2			Lab Assignment
E7 NFACSE8.1	21. Explain the advantages and disadvantages of working in the food service industry.		R4.2			Classroom Discussion
E9 NFACSE8.1	22. Use a variety of information sources to research food service careers and education / training.		R4.2			Discussion Presentation

Culinary Arts 2 (HH740) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Culinary Arts 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Restaurants and Food/Beverage Services
Career Cluster Area: Hospitality & Tourism
Source of Occupational Skills Standards: Alaska Family and Consumer Science (AKFCS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**___**_ No OR __X_ Yes, and identify Certificate: Alaska Food Worker Card
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH740
Course Description: This course is designed for students to advance their food service skills and knowledge through planning, supervising, and producing projects.

Content Headings/Topics:

1. Workplace skills
2. Safety and sanitation
3. Menu planning
4. Purchasing and cost control
5. Receiving and storage
6. Time schedule
7. Product evaluation
8. Quantity food preparation
9. Supervisory skills
10. Food service industry
11. Career planning

Culinary Arts 2 (HH740) Curriculum Guide 9-12 Grades

Standard AKFCS	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
E2	1. Recognize, model, and peer teach effective workplace skills: communication, decision-making, collaboration, team building, & problem solving. **(A1)**					Presentation
C7	2. Recognize, model, and peer teach safe and sanitary food service work habits. **(A6)**		R4.2			Lab Assignment
C7	3. Follow local, state, and federal food service safety and sanitation laws. **(A6)**		R4.2			Lab Assignment
C10	4. Prepare a dinner menu.		R4.4, W4.2			Lab
E5	5. Describe how a menu affects a food operation's purchasing, employee skills, equipment, production, and budget.		R4.2			Oral Presentation
C8	6. Describe good purchasing, receiving, and storage practices and procedures.		R4.2			Oral Presentation
C7	7. Purchase, receive, and store the food and supplies for one meal.					Lab Assignment
C10	8. Explain why good organization and a time schedule are very important in food production.		R4.2			Oral Presentation
C10	9. Prepare a time schedule for the preparation of one meal.		W4.2			Lab Assignment
C9	10. Explain the importance of food product evaluation.		R4.2			Oral Presentation
C10	11. Describe, model, and peer teach quantity food preparation techniques.		R4.4			Lab Assignment
E4	12. Identify the main goals and responsibilities of supervisors. **(A7)**		R4.2			Lab Assignment
C10	13. Supervise a kitchen staff and operations for one meal. **(A5, 7)**					Lab Assignment
E9	14. Research a specific food service career. **(B2)**		R4.2			Assignment
E9	15. Shadow a food service professional on the job**.(A7)**					Job Shadow
E10	16. Prepare or update a resume / portfolio. **(A3)**		W4.2			Assignment
E10	17. Prepare a personalized food service career plan including education / training, work experience, and advancement. **(B4,5)**		W4.2			Lab Assignment

Cultural and Regional Foods (need #) Curriculum Guide 10-12 Grades

Prerequisite Course(s): Foods 1 and 2
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Restaurant and Food/Beverage Services
Career Cluster Area: Hospitality and Tourism
Source of Occupational Skills Standards: Alaska Family Consumer Science (AKFCS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: needed
Course Description: This course is designed to expand the basic cooking skills learned in Foods 1. Emphasis will be on creativity, modifying recipes, and preparing international and regional United States foods.

Content Headings/Topics:

1. Food and culture
2. Food science and technology
3. Safe and global food supply
4. Food sanitation and safety
5. Creativity and cooking
6. Food preservation
7. Foods of the World
8. Foods of the U.S.
9. Careers in food and nutrition

Cultural and Regional Foods (need #) Curriculum Guide 10-12 Grades

Standard AKFCS	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
C6	1. Identify factors that influence food choices.					Pre / Post Test
E6	2. Give examples of cultural food customs and how they have evolved through history.		R4.2			Lab Assignment
C9	3. Discuss the impact of food-related technology in the food industry and the home.		R4.2			Class Discussion
C7	4. Explain the role of government in food safety issues. **(A6)**					Pre / Post Test
E6	5. Identify factors that influence staple foods and why they differ around the world.		R4.2			Pre / Post Test
E8	6. Model safe practices in the kitchen. **(A6)**					Lab Assignment
C7	7. Demonstrate practices that promote safe food handling. **(A6)**					Lab Assignment
C10	8. Prepare foods by modifying recipes.		R4.4			Lab Assignment
C10	9. Present foods with a creative flair.					Lab Assignment
C7	10. Identify methods of food preservation and their advantages.		R4.4			Pre / Post Test
C7	11. Preserve foods using food preservation techniques.					Lab Assignment
E6	12. Identify foods common to various countries.		R4.2			Pre / Post Test
E6	13. Prepare foods from around the world.					Lab Assignment
E6	14. Identify foods common to the various regions in the U.S.		R4.2			Lab Assignment
E6	15. Prepare foods of various regions in the U.S.		R4.4			Lab Assignment
E9	16. Identify career opportunities in food and nutrition. **(B2)**		R4.2			Class Discussion
E10	17. Research education and training requirements for careers in food production and services. **(B4,5)**		R4.2, W4.2			Class Discussion

Emergency Trauma Technician (HH780) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 3)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Health and Human Services
Career Cluster Area: Health Occupations
Source of Occupational Skills Standards: Alaska Dept. of Health and Social Services
Eligibility for Nationally Recognized Skill Certificate(s)/State License: ___ No OR_**X**_ Yes, and identify Certificate: ETT Certificate
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH780
Course Description: This is a State of Alaska Health Department course where students learn to work as a pre-hospital/first responder medical team. Certification is available if students successfully complete the exit exam.

Content Headings/Topics:

1. Basic anatomy and function
2. Patient assessment
3. CPR
4. Shock management
5. Soft tissue injury
6. Splinting of fractures
7. Trauma assessment
8. Burn management
9. Oxygen therapy
10. Patient transport
11. Common medical emergencies
12. Environmental emergencies

Emergency Trauma Technician (HH780) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
ADHSS NREMT EMST-C	1. Describe the basic human anatomy and function of the respiratory, circulatory, muscular skeletal, nervous, digestive, and endocrine systems.		R4.2 W4.2			Pre/Post
ADHSS NREMT EMST-C	2. Demonstrate the appropriate means of assessing a patient's emergency condition.		R4.4			Demo Test
ADHSS NREMT EMST-C	3. Properly demonstrate CPR.		R4.4			Demo Test
ADHSS NREMT EMST-C	4. Identify the characteristics of shock management.		W 4.2			Demo Test
ADHSS NREMT EMST-C	5. Identify the proper techniques for soft tissue injury management.		W 4.2			Demo Test
ADHSS NREMT EMST-C	6. Demonstrate the method of splinting fractures.		R4.2			Demo Test
ADHSS NREMT EMST-C	7. Identify the steps in trauma assessment.		R4.4 W.4.2			Demo Test
ADHSS NREMT EMST-C	8. Demonstrate the response process for burn management.		R4.4			Demo Test
ADHSS NREMT EMST-C	9. Describe the proper techniques for oxygen therapy.		R4.2			Pre/Post
ADHSS NREMT EMST-C	10. Demonstrate the proper technique of patient transport.		R4.4			Demo
ADHSS NREMT EMST-C	11. Demonstrate and apply knowledge in response to common medical emergencies.		R4.4			Evaluation
ADHSS NREMT	12. Demonstrate and apply knowledge in response to environmental emergencies.		R4,4			Evaluation

Fashion/Textiles 1 (HH715) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: Alaska Family and Consumer Science (AKFCS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH715
Course Description: This course focuses on fashion, textiles, and sewing with an emphasis on student planned and produced projects.

Content Headings/Topics:

1. Clothing decisions
2. Elements and principles of design
3. Fabrics
4. Fashion textiles, selection and purchasing
5. Safety
6. Equipment
7. Sewing techniques
8. Project planning and production
9. Fashion textiles industry
10. Fashion textile careers

Fashion/Textiles 1 (HH715) Curriculum Guide 9-12 Grades

Standard AKFCS	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
D3	1. Identify factors that influence clothing decisions.		R4.2			Pre / Post Test
	2. Apply the elements and principles of design to fashion and textiles.		M4.2.1 R4.2			Lab Assignment
D2	3. Distinguish between the various characteristics of fibers, fabrics, and finishes.		R4.2			Pre / Post Test
D6	4. Identify factors to consider when selecting and purchasing textiles and fashions.		R4.2			Pre / Post Test
E8	5. Demonstrate the safe and proper operation of textile equipment. **(A6)**		R4.2			Lab Assignment
D2	6. Demonstrate a variety of sewing techniques.		M4.2.1			Lab Assignment
	7. Plan and produce a textile construction project(s).		W4.2.1			Lab Assignment
	8. Trace a garment through the fashion and textile industries from design to customer. **(A5)**		R4.2			Lab Assignment
E9	9. Research career opportunities, education, and training needs for various fashion and textile careers. **(B2-5)**		R4.2			Lab Assignment

Fashion/Textiles 2 (HH720) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Fashion/Textiles 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Consumer Science
Career Cluster Area: Human Services
Source of Occupational Skills Standards: Alaska Family Consumer Science (AKFCS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH720
Course Description: This course gives students the opportunity to advance their skills in fashion, textiles, and sewing through independently planned and produced projects.

Content Headings/Topics:

1. Textile industry
2. Careers
3. Safety
4. Equipment
5. Sewing techniques
6. Project planning and production

Fashion/Textiles 2 (HH720) Curriculum Guide 9-12 Grades

Standard AKFCS	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
E7	1. Research various components of the fashion and textile industries.		R4.2 W4.2			Written Report
E9	2. Interview/job shadow a professional working in the fashion/textiles industries. **(A3)**					Lab Assignment
E8	3. Model safe work practices in the fashion/textile industries. **(A6)**					Lab Assignment
D2	4. Demonstrate advanced skill in textile equipment operation.		M2.4.1 R4.4			Lab Assignment
D2	5. Demonstrate advanced textile construction techniques.		M2.4.1 R4.4			Lab Assignment
D2	6. Plan and produce advanced textile construction projects.		M2.4.1 R4.4			Lab Assignment

Foods 1 (HH725) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Restaurants and Food/Beverage Services
Career Cluster Area: Hospitality and Tourism
Source of Occupational Skills Standards: Alaska Family Consumer Science (AKFCS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH725
Course Description: This course is designed for students who are interested in learning how to cook. The course includes simple food preparation techniques and recipes.

Content Headings/Topics:

1. Nutrition
2. Food safety and sanitation
3. Recipe skills and measuring techniques
4. Cooking and baking methods
5. Mealtime etiquette and planning
6. Food purchasing
7. Food preparation

Foods 1 (HH725) Curriculum Guide 9-12 Grades

Standard AKFCS	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
C6	1. Research the relationship of nutrition and wellness to individual health.		R4.2 W4.2			Oral and Written Report
C8	2. Appraise sources of food and nutrition information, including food labels.		R4.2			Oral Report
E8 NFAACSE8.2	3. Model safe practices in the kitchen. **(A6)**					Lab Assignment
C7 NFACSE8.2	4. Demonstrate practices that promote safe food handling. **(A6)**					Lab Assignment
C10 NFACSE8.5	5. Utilize weights and measures to demonstrate proper scaling and measurement techniques.		M2.4.1			Lab Assignment Pre /Post Test
C10	6. Explain various techniques that correspond with common recipe terms.		M2.4.1 R4.2			Pre / Post Test
C10	7. Explain various functions of ingredients used in baked products		R4.2			Pre/Post Test Assignment
C10 NFACSE8.5	8. Demonstrate a variety of cooking and baking methods including quick breads, dairy, eggs, candy, pies and pastries.		M2.4.1			Lab Assignment
C10	9. Identify cookware, bakeware, cooking tools, and their uses.		R4.2			Assignment Pre/Post Test
C10	10. Describe basic table etiquette guidelines.		R4.2			Discussion
C10	11. Prepare food for presentation and assessment.		R4.4			Lab
C10	12. Coordinate a work plan and schedule in preparing a dish.		W4.2			Lab Assignment
C8	13. Identify means of saving money when purchasing foods.		R4.2			Discussion
C9	14. Examine the applicability of convenience food items.		R4.2			Discussion
NFACSE8.5	15. Prepare basic foods/recipes using proper techniques.		M2.4.1			Lab Assignment
	16. Outline guidelines for working cooperatively in the food lab. **(A1)**		R4.2			Lab Assignment

Foods 2 (HH730) Curriculum Guide — 9-12 Grades

Prerequisite Course(s): Foods 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Restaurants and Food/Beverage Services
Career Cluster Area: Hospitality and Tourism
Source of Occupational Skills Standards: Alaska Family Consumer Science (AKFCS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH730
Course Description: This course is designed for students who are interested in learning how to cook. The course includes simple food preparation techniques and recipes.

Content Headings/Topics:

1. Nutrition
2. Food safety and sanitation
3. Recipe skills and measuring techniques
4. Cooking and baking methods
5. Mealtime etiquette and planning
6. Food purchasing
7. Food preparation

Foods 2 (HH730) Curriculum Guide 9-12 Grades

Standard AKFCS	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
C6	1. Research the relationship of nutrition and wellness to individual health.		R4.2 W.4.2			Oral and Written Report
C8	2. Appraise sources of food and nutrition information, including food labels.		R4.2			Oral Report
E8 NFAACSE8.2	3. Model safe practices in the kitchen. **(A6)**					Lab Assignment
C7 NFACSE8.2	4. Demonstrate practices that promote safe food handling. **(A6)**					Lab Assignment
C10 NFACSE8.5	5. Utilize weights and measures to demonstrate proper scaling and measurement techniques.		M2.4.1			Lab Pre /Post Test
C10	6. Explain various techniques that correspond with common recipe terms.		M2.4.1 R4.2			Pre / Post Test
C10	7. Explain various functions of ingredients used in baked products		R4.2			Pre/Post Test Lab Assignment
C10 NFACSE8.5	8. Demonstrate a variety of cooking and baking methods including yeast breads, fruits, vegetables, grains, legumes, soups and sauces.		M2.4.1			Lab Assignment
C10	9. Identify cookware, bakeware, cooking tools, and their uses.		R4.2			Lab Pre/Post Test
C10	10. Describe basic table etiquette guidelines.		R4.2			Discussion
C10	11. Prepare food for presentation and assessment.		R4.4			Lab Assignment
C10	12. Coordinate a work plan and schedule in preparing a dish.		W4.2			Lab Assignment
C8	13. Identify means of saving money when purchasing foods.		R4.2			Discussion
C9	14. Examine the applicability of convenience food items.		R4.2			Discussion
NFACSE8.5	15. Prepare basic foods/recipes using proper techniques.		M2.4.1			Lab Assignment
	16. Outline guidelines for working cooperatively in the food lab. **(A1)**		R4.2			Lab Assignment

Interior Design and Housing (HH760) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Arts, Architecture, Human Services, and Manufacturing
Career Cluster Area: Arts, Architecture, Human Services, and Manufacturing
Source of Occupational Skills Standards: Family and Consumer Sciences Education (FACS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH760
Course Description: This course focuses on the exterior and interior design of homes with an emphasis on student projects and developing design plans.

Content Headings/Topics:

1. Human needs, housing, and society
2. Careers and housing
3. Housing design
4. Consumer concerns regarding housing
5. Elements and principles of design
6. Home safety, security, and maintenance
7. Housing and technology
8. Historical influences on housing
9. Kitchen design
10. Housing construction
11. Creating and presenting design
12. Remodeling and renovating

Interior Design and Housing (HH760) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
AAFACS11.2	1. Analyze the basic needs that housing satisfies.		R4.2			Pre / Post Test
AAFCS 6.1,11.1	2. Compare and contrast housing needs among people of different ages and life stages.		R4.2			Pre / Post Test
AAFCS11.2	3. Identify how social trends and the government influence housing.		R4.2			Oral Report with rubric
IBC 09 AAFCS2.5, 3.4, 11.2	4. Analyze the role of technology in home construction.		R4.2			Pre / Post Test
AAFCS11.1, 11.3	5. Identify various careers in the housing industry and education level/experience needed. **(B2-5)**		R4.2			Project
AAFCS 11.5	6. Evaluate how events in America's history and historical housing elements have influenced 20th century designs.		R4.2			Pre / Post Test
AAFCS11.1, IBC 09	7. Identify factors to consider when evaluating a floor plan.		R4.2			Pre / Post Test design
AAFCS 13.6	8. Compare and contrast advantages, disadvantages, and costs involved in renting and buying a home.		M1.4.5 R4.2			Project
FACS 11.4 IBC 09	9. Identify blueprint symbols.					Project
FACS11.4,5 IBC 09 AAFCS 3.4,11.2	10. Summarize characteristics of plumbing, heating, cooling, ventilation systems, and how these energies can be conserved.		R4.2			Lab Assignment
AAFCS11.3,-5 IBC 09	11. Apply the design elements and principles to good design.		M1.4.1, 2.4.1, 2.4.4 R4.2, 4.4			Project
AAFCS11.3-5	12. Choose color schemes utilizing given criteria.		R4.4			Project
AAFCS 11.3	13. Outline the five steps involved in designing interiors.		R4.4			Lab Assignment
AAFCS11.3, 11.4,11.5 IBC 09	14. Explain basic principles for designing efficient kitchens.		R4.2			Oral Presentation
FCS11.3, 11.4,11.5 IBC 09	15. Identify ways to prevent home accidents and improve home security, as well as the importance of preventative maintenance.		R4.2			Pre / Post Test Journal
IBC 09 AAFCS 11.3, 11.4,11.5	16. Summarize the steps in planning a remodeling project.		R4.2			Project

Introduction to Criminal Justice (HH790) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Human Services
Career Cluster Area: Law, Public Safety, and Security
Source of Occupational Skills Standards: State of Alaska, Department or Public Safety; U.S. Government, multiple departments, Learning for Life, Explorers, American Barr Association, American Correctional Association
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency? _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH790
Course Description: This course provides a comprehensive yet fun approach to the study of employment opportunities in the criminal justice system. With guest speakers from local, state, and federal agencies, employment opportunities are brought to life for students. Various field trips bring a reality to the criminal justice system not matched, even at the college level. This class would be good for students interested in careers in law enforcement, legal services, public service, or military service.

Content Headings/Topics:

1. General exposure to carious types of legal and public safety careers from local to federal levels
2. Police administration, duties, and obligations
3. Courts, administration, individual vs. public rights, criminal and civil litigation, prosecution vs. defense, pretrial to sentencing
4. Corrections, jails, probation, and parole
5. Juvenile justice
6. International justice

Introduction to Criminal Justice (HH790) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
SOA, USGOV, BSA, ABA, ACA	1. Investigate careers in law, public safety, and security.					Action Plan
SOA, USGOV, ABA	2. Identify occupation specific skills, aptitudes, attitudes, and personal skills.					Action Plan
ABA, ACA, APPA	3. Identify occupational specific professional organizations.					Action Plan
SOA, USGOV, BSA, ABA	4. Identify resume-building activities.					Action Plan
SOA, USGOV	5. Relate personal skills, aptitudes, and attitudes to specific occupations.					Action Plan
	6. Identify workplace issues and concerns.					Action Plan
SOA, USGOV, BSA, ABA, ACA	7. Identify educational, license, and certification qualifications.					Action Plan

Hospitality & Tourism (HH765) Curriculum Guide 9-12 Grades

Formerly Travel (HH765)
Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Travel and Tourism
Career Cluster Area: Hospitality and Tourism
Source of Occupational Skills Standards: National Standards for Family & Consumer Sciences Education (FACS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency? _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH765
Course Description: This course is designed to introduce students to the Hospitality/Tourism field. Students will become acquainted with the various facets of the Hospitality industry. Course projects will enhance students' job and workplace skills. In addition, students will acquire a Food Worker Card from the Alaska Department of Environmental Conservation as a part of the course.

Content Headings/Topics:

1. World of Hospitality
2. Food and Beverage Industry
3. Lodging Industry
4. Business of Hospitality
5. Careers

Hospitality & Tourism (HH765) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
FACSE3	1. Describe and model effective work-place skills: communication, decision-making, collaboration, team building, and problem solving. **(A1)**		R4.2			Assignment
FACSE4	2. Describe the communications process barriers to communication and listening skills as effective communication tools. **(A1)**		R4.2			Assignment
FACSE5	3. Use effective techniques to provide quality customer service.		R4.4			Assignment
	4. Identify travel/tourism attractions and events.		R4.2			Assignment
	5. Understand the contributions to travel and tourism made throughout history.		R4.2			Assignment
FACSE5	6. Recognize the importance of the travel/tourism industries to the economy.		R4.2			Assignment
	7. Identify and describe types of food service businesses.		R4.2			Assignment
FACSE8	8. Practice correct sanitation and safety procedures. **(A6)**					Assignment
	9. Identify and describe types of lodging businesses.		R4.2			Assignment
	10. Write, format, and word process a business letter and an informal business report.		W4.2, 4.3			Assignment
FACSE5	11. Model hospitality job skills by planning and executing a class travel/tourism project.		R4.2, 4.4 W4.2			Assignment
FACSE10	12. Prepare or update your personal resume/portfolio. **(A3)**		W4.2			Assignment
FACSE10	13. Complete a job application form. **(A3)**		W4.2			Assignment
FACSE7	14. Use a variety of information sources to research travel/tourism careers and education training. **(B2-5)**		R4.2			Assignment

Medical Terminology (HH785) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Health Science
Career Cluster Area: Health Services
Source of Occupational Skills Standards: national Consortium on Health Science and Technology Education
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: __ No OR __X_ Yes – Through Mat-Su College, Medical Terminology I, 3 credits
Is this course brokered through another institution or agency? _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH785
Course Description: This course is designed to prepare students who have interest in health care or medicine. The Medical Terminology online course features complete content from Medical Terminology for Health Professionals, 4th Edition, by Ann Ehrlich and Carol Schroeder. The courseware presents medical terminology through a combination of anatomy and physiology, word building principles, and phonetic "sound like" pronunciations. Content is organized according to body systems, one module per system. Interactive review games and links to related content give further information and study guidance. A local instructor is available to provide assistance as needed. This course is an excellent first step for students interested in being doctors, nurses, medical assistants, medical technicians, or medical office workers.

Content Headings/Topics:

1. Introduction to medical terminology
2. The human body in health and disease
3. The skeletal system
4. The muscular system
5. The cardiovascular system
6. The lymphatic system
7. The respiratory system
8. The digestive system
9. The urinary system
10. Special senses; the eyes and ears
11. The endocrine system
12. The reproductive system
13. Diagnostic procedures and pharmacology

Medical Terminology (HH785) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
1	Health care workers will now the academic subject matter required for proficiency in their area.		R4.2			Assignment
1.1	Describe the basic structures and functions of cells, tissues, organs, and systems as they relate to homeostasis.		R4.2			Assignment
1.14	Analyze the interdependence of the body systems as they relate to wellness, disease, disorders, therapies, and care rehabilitation.		R4.2 W4.2			Assignment
2.26	Use medical terminology within scope of practice in order to interpret, transcribe, and communicate information, data, and observations.		R4.2 W4.2			Assignment

Nutrition of Food (need #) Curriculum Guide 10-12 Grades

Prerequisite Course(s): 10-12 Health
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Health Science, Hospitality, Agriculture, Human Services
Source of Occupational Skills Standards: Alaska Family and Consumer Science (AKFCS), American Association of Family and Consumer Science.
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: needed
Course Description: This course is designed to provide firsthand experiences stressing nutritional science and the relationship with food. Students apply nutrition and wellness concepts in food labs.

Content Headings/Topics:

1. Life choices now and later
2. Safety and sanitation
3. Nutrients: Carbohydrates, Fats, and Proteins
4. Roles of vitamins and minerals
5. Water
6. Food becomes you: Culture of food
7. The food industry
8. Careers in Nutrition and Foods

Nutrition of Food (need #) Curriculum Guide 10-12 Grades

Standard AAFCS	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
14.1.2, 14.1.3, 14.1.4	Analyze factors that influence nutrition and wellness		R4.2			Pre/post test Project
14.2.1, 14.2.3, 14.2.4, 14.3.1, 14.3.2	Evaluate the nutrition needs of individuals including sports performance, eating disorders, dieting, food information		R4.2			Case Studies Pre/Post test
8.2.1, 8.2.5, 8.2.7, 8.2.10, 14.4.1, 14.4.2, 14.4.5	Demonstrate food safety and sanitation procedures **(A6)**					Food Labs
8.4.2, 8.4.3, 8.4.7	Demonstrate menu planning principles and techniques		R4.2 W4.2			Menu planning project
8.5.1, 8.5.2, 8.5.4, 8.5.5, 8.5.7, 8.5.14, 9.2.1, 9.2.2, 9.2.5	Demonstrate food preparation methods and techniques to produce a variety of food products		R4.4			Food Labs
9.3.1, 9.3.2, 9.3.3, 9.3.6, 9.3.7	Evaluate nutrition principles, food plans, preparation techniques, and dietary plans		R4.2 W4.2			Pre/Post test Menu planning Food Labs
9.4.1, 9.4.4, 9.4.5	Apply basic concepts of nutrition including individual needs, modified diets, health maintenance, and disease prevention.		R4.2			Case study/ analysis application of concepts
9.5.4, 9.5.6, 9.5.7, 14.5.1, 14.5.2, 24.5.3	Conduct sensory evaluations of food products in conjunction with the understanding of current technology.		R4.2			Food Labs Sensory Lab Pre/Post on technology.
9.6.1, 9.6.2, 9.6.4, 9.6.6, 9.6.9	Demonstrate dietetics, nutrition principles, practices		R4.2			Food Labs Menu planning Recipe creation
8.1.1, 8.1.2, 8.1.3, 9.1.1, 9.1.2, 9.1.3	Analyze career paths within food production and food services industries. **(B2-5)**		R4.2 W4.2			Research paper

Personal Care Assistant (HH795) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Health and Human Services
Career Cluster Area: Health Services
Source of Occupational Skills Standards: national Consortium on Health Science and Technology Education
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X__ Yes, and identify Certificate: Personal care Assistant
Tech Prep: _X_ No OR ___ Yes – Pending with Kenai Peninsula College, 4 credits
Is this course brokered through another institution or agency? _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: HH795
Course Description: This course is designed to provide training to meet the standards and requirements for the Alaska State Personal Care Assistant Certification.

Content Headings/Topics:

1. PCA Roles and Responsibilities
2. Consumer-Directed Approach
3. Legal & Ethical Responsibilities
4. Communication
5. Safety
6. Lifespan Development
7. Infection Control
8. Monitoring General Health
9. Digestive System
10. Elimination
11. Integumentary System
12. Musculoskeletal & Nervous System
13. Circulatory & Respiratory System
14. Endocrine System
15. Disability Issues
16. Community Resources
17. Employability Skills

Personal Care Assistant (HH795) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
1.25, 3.2, 4.2, 5.1, 6..2, 8.1,9.1	1. Demonstrate skills for the roles and responsibilities of a personal care assistant.		R4.4 W4.2			Written
1.2.1, 1.23-4	2. Determine relationships between disease/disorders to the environment and genetic causes.		R4.2 W.4.2			Written
1.22, 5.1-2, 7.1-4, 9.1, 10.1	3. Prevent illness and injury through safe work practices and infection control. **(A6)**		R4.4			Performance
5.2, 7.2	4. Demonstrate appropriate use of personal protective equipment**. (A6)**					Performance
1.13, 2.11, 2.22-23, 2.25-6, 4.24	5. Utilize medical terminology to communicate information.		R4.2 W4.2			Written
2.23, 2.25-6, 9.1	6. Accurately assess and report patient vital signs.					Performance
7.1-2	7. Demonstrate proper hand washing techniques. **(A6)**		R4.4			Performance
9.1	8. Use ophthalmoscopes and otoscopes to perform neural testing.		R4.4			Performance
1.25, 4.2, 6.3	9. Demonstrate appropriate care for the physical and emotional needs of patients.					Performance
2.1-2, 4.13, 5.1-2, 6.1-2, 11.1	10. Demonstrate knowledge and appropriate documentation of the legal, ethical, and confidential issues associated with health care.		W4.2			Written
1.1-2, 7.22, 7.33	11. Practice lifting and transferring patients and have knowledge of body mechanics and range or motion.		R4.4			Performance
1.2, 6.2	12. Practice knowledge of human elimination and caring for a patient's hygiene.		R4.2			Performance
1.1-2	13 Demonstrate proper meal planning, preparation and feeding.					Performance
3.2, 3.41	14. Explore local health care agencies and resources. **(B5)**		W4.2			Written
2.1-2, 4.2, 8.2	15. Develop effective communication skills. **(A1)**					Performance
2.1, 4.15, 6.2	16. Develop teamwork and problem solving strategies. **(A1)**					Performance
4.1-3	17. Demonstrate personal employability skills such as attendance, time management and individual responsibility.					Performance
4.1-2	18. Demonstrate employment seeking skills such as resume writing, application completion, and job interviewing. **(A3)**		W4.2			Portfolio
10.1	19. Acquire certification in CPR and first aid.					AHA Testing
10.1	20. Demonstrate competency in the use of an (AED).		R4.4			AHA Testing

Relationships (need #) Curriculum Guide 10-12 Grades

Prerequisite Course(s): available for grades 10-12 only
High School Credit = ½ credit per semester (Postsecondary credit = 4)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Health Science, Human Services
Source of Occupational Skills Standards: Alaska Family and Consumer Science (AKFCS), American Association of Family and Consumer Science.
Eligibility for Nationally Recognized Skill Certificate(s)/State License: X No OR __ Yes
Tech Prep: __X_ No OR __ Yes
Is this course brokered through another institution or agency: X No OR _ Yes

Course Master Number: needed
Course Description: In this course, emphasis is placed on the individual and his or her relationship with others. Basic human development and behavioral characteristics of individuals form the basic needs, development of psychological, and physiological needs. Students will examine basic needs, development of interpersonal skills, behavior modification, use of assertiveness, elimination of stereotyping, dealing with stress, conflict, and abuse, and practicing problem-solving techniques. Personal relationships allows the students to obtain self-knowledge and to practice the skills necessary for a successful and responsible life. The emphasis is for each person to grow and achieve his or her full potential, by developing their future employability skills. Preliminary career investigation relative to personal characteristics, wants, and goals is appropriate in this course.

Content Headings/Topics

1. Development of self-awareness
2. Develop career awareness
3. Manage a job search
4. Practice Communication skills
5. Constructive ways to resolve conflicts
6. Distinguish ways to identify and manage stress
7. Identify family structures including how families are changing
8. Investigate family issues: divorce, death, violence

Relationships (need #) Curriculum Guide 10-12 Grades

Standard AKFCS	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
1.1.1-6, 1.2.1, 1.2.2, 1.2.8,1.3.6, 2.1.1, 2.1.2, 13.1.1, 13.5.1, 13.5.2	1. Analyze strategies to manage multiple roles and responsibilities (individual, family, career, community, global)		R4.2 W4.2			Career/Goal planning project
1.2.3, 1.2.4, 1.2.6, 1.2.8, 6.2.4, 7.1.2, 7.3.2, 7.4.3, 7.4.5, 12.3.2, 13.3.1-4, 13.3.6, 13.3.7	2. Demonstrate communication skills for school and the workplace: including technology and ethics					Role Play using rubric
6.1.1, 6.1.2, 6.1.5, 6.1.6, 6.2.2, 6.2.4, 7.2.1, 12.1.1-4 12.3.2, 13.1.2, 13.6.1	3. Analyze the principles and effects of family as a system on individuals and society		R4.2 W4.2			Research Paper
7.4.5, 7.5.3, 7.5.4, 7.5.6, 13.6.4	4. Illustrate coping or adjustment strategies and stress management practices					Application using rubric
13.2.2, 13.2.3, 13.2.5	5. Apply personal needs and characteristics on interpersonal relationships					Pre/Post test
13.4.1-6	6. Evaluate effective conflict prevention and management					Demonstration using rubric
13.5.1-4, 13.5.7, 13.6.5	7. Demonstrate teamwork and leadership skills **(A1)**					Demonstration using rubric
1.2.3, 1.2.4, 1.2.6, 1.2.8, 6.2.4, 7.1.2, 7.3.2, 7.4.3, 7.4.5, 13.2.1	8. Demonstrate teamwork and communication skills for school and the workplace **(A1)**					Demonstration using rubric

Recommended Resources for Human Services

Recommended Resources for Human Services	Grades 9-12
Recommended Resources: (websites, textbooks, essential equipment, reference materials, supplies)	
(NHCSS) National Health Care Skill Standards Author: Sri Ananda, Joan DaVanzo Far West Laboratory for Educational Research and Development 730 Harrison Street San Francisco, CA 94107-1242	http://www.wested.org/cs/wew/view/rs/136 $10 Also available online at http://www.wested.org/nhcssp/document.html
National Consortium on Health Service and Technology Education (NCHSTE) C/O MHC 2410 Woodlake Drive Suite 440 Okemos, MI 48864-3997 Tel: 517-347-3332 Fax: 517-347-4096	http://www.nchste.org/
(FCCLA) Family, Career and Community Leaders of America	http://www.fcclainc.org
(HOSA) Health Occupations Students of America	http://www.hosa.org/
(SKILLS USA)Skills USA-VICA (for assessments)	http://skillsusa.org/contests.html
National Skill Standards Board Institute	http://www.nssb.org/
Alaska Reading, Writing and Math Standards	http://www.eed.state.ak.us/tls/PerformanceStandards/
Alaska Content Standards	http://www.eed.state.ak.us/contentstandards/home.html
Cultural Standards for Students – Alaska Native Knowledge Network	http://www.ankn.uaf.edu/stustan.html
Alaska Family and Consumer Science (AKFCS)	http://www.kpbsd.k12.ak.us/Curriculum/voced/Standapp/AKFCSHE.STD.htm
Various teacher resource materials including ServSafe Food Safety Training Program	
National Standards for Family & Consumer Sciences Education (FACS) V-TECs Southern Association of Colleges & Schools 1866 Southern Lane Decatur, GA 30033-4097 800-248-7701 or FAX 404-679-4556	http://ideanet.doe.state.in.us/octe/facs/natlstandards.htm#order
Child Development Associate National Credentialing Program: Council for Professional Recognition	http://www.cdacouncil.org/

Websites with General Information	
National Skills Standards Board Certification/Apprenticeship Programs:	http://www.nssb.org
Teacher projects of success: American Association of Family & Consumer Sciences	http://www.aafcs.org/resources/ideas.html
Other Sources of Standards	
Alaska SEED (Alaska System for Early Education Development)	
Alaska Department of Education and Early Development (907) 269-1045	http://www.eed.state.ak.us/
National Association for the Education of Young Children (NAEYC) Professional Preparation Associate Degree Guidelines Revisions	http://www.naeyc.org/profdev/guidelines/associate.asp
Other Sources of Information & Textbooks	
Parenting: Rewards and Responsibilities by Verra Hildebrand, Glencoe	
The Developing Child by Hooy E. Brisbane, Glencoe McGraw-Hall	
South-Central Alaska Family Magazine published by Frontiersman	
NIOST- National Institute on Out of School Time	http://www.niost.org/
NAFCC- National Association of Family and Child Care	http://www.nafcc.org/

Industrial Engineering

Architectural Drafting 1 (II755) Curriculum Guide 9-12 Grades

Formerly Architectural Design 1
Prerequisite Course(s): none
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Engineering and Technology
Career Cluster Area: Science, Technology, Engineering, and Mathematics
Source of Occupational Skills Standards: Uniform Builders Code (UBC)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II755
Course Description: This course is designed to teach students the basics of residential architecture.

Content Headings/Topics:

1. Primary design and planning
2. Area planning
3. Basic residential architectural practices and techniques
4. Technical and specialty architectural plans
5. Architectural support services

Architectural Drafting 1 (II755) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
UBC 97	1. Assess and utilize fundamentals of residential architectural design and planning.		M1.4.1, 2.4.1, 4.4.2, 5.4.6 R4.4			Assessments
	2. Understand environmental design factors affecting residential construction and planning.		R4.2 SF1-3			Demonstrate
	3. Identify differing room design criteria and use this information to design a functional residential floor plan.		M1.4.1, 2.4.1, 2.4.4, 3.4.2, 4.4.2, 5.4.6, 7.4.1 R4.2, 4.4			Lab Assessment
UBC 97	4. Utilize drafting industry standard practices and procedures in floor plan development.		M1.4.1, 1.4.3, 2.4.1, 2.4.3, 3.4.2, 4.4.2, 5.4.6, 7.4.1 R4.4			Lab Assessment
	5. Develop pictorial, elevation, and floor plans that meet architectural graphic standards.		M1.4.1, 2.4.1, 2.4.3, 3.4.2, 4.4.2, 5.4.6, 7.4.1 R.4.4			Lab Assessment
	6. Produce schedules and specifications that meet architectural industry standards.		M1.4.1, 7.4.1 R.4.4			Demonstrate
	7. Develop a working knowledge of Building Codes as they relate to residential construction. **(B5)**		R4.2			Demonstrate
	8. Estimate a residential floor plan utilizing both a square footage and actual cost method.		M1.4.1, 2.4.1, 5.4.6, 7.4.1			Demonstrate
	9. Check residential plans utilizing architectural models, template checking, and architectural drawing checklists.		M1.4.1, 2.4.1, 7.4.1 R4.2			Demonstrate

Architectural Drafting 2 (II760) Curriculum Guide 9-12 Grades

Formerly Architectural Design 2
Prerequisite Course(s): Architectural Drafting 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Engineering and Technology
Career Cluster Area: Science, Technology, Engineering, and Mathematics
Source of Occupational Skills Standards: Uniform Builders Code (UBC)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II760
Course Description: This course is designed to teach students the fundamentals of commercial architecture and advanced residential architecture.

Content Headings/Topics:

1. Primary design and planning
2. Area planning
3. Advanced residential architectural practices and techniques
4. Technical and specialty architectural plans
5. Architectural support services

Architectural Drafting 2 (II760) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
	1. Assess and utilize fundamentals of commercial architectural design and planning.		M1.4.1, 2.4.1, 4.4.2, 5.4.6 R4.4			Lab Assignments
	2. Understand environmental design factors affecting residential construction and planning.		R4.2 SF1-3			Lab Assignments
	3. Identify differing room design criteria and use this information to design a functional commercial floor plan.		M1.4.1, 2.4.1, 2.4.4, 3.4.2, 4.4.2, 5.4.6, 7.4.1 R4.2, 4.4			Lab Assignments
UBC 97	4. Utilize drafting industry standard practices and procedures in floor plan development.		M1.4.1, 1.4.3, 2.4.1, 2.4.3, 3.4.2, 4.4.2, 5.4.6, 7.4.1 R4.4			Lab Assignments
	5. Develop pictorial, elevation, and floor plans that meet architectural graphic standards.		M1.4.1, 2.4.1, 2.4.3, 3.4.2, 4.4.2, 5.4.6, 7.4.1 R.4.4			Lab Assignments
	6. Produce schedules and specifications that meet architectural industry standards.		M1.4.1, 7.4.1 R.4.4			Lab Assignments
UBC 97	7. Develop a working knowledge of Building Codes as they relate to basic commercial and residential construction. **(B5)**		R4.2			Lab Assignments
	8. Estimate a residential floor plan on a spreadsheet utilizing both a square footage and actual cost method.		M1.4.1, 2.4.1, 5.4.6, 7.4.1			Lab Assignments
	9. Check commercial and residential plans utilizing architectural models, template checking, and architectural drawing checklists.		M1.4.1, 2.4.1, 7.4.1 R4.2			Lab Assignments

Commercial (Video) Communications 1 (II860) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Web and Digital Communications
Career Cluster Area: Information Technology
Source of Occupational Skills Standards: National Educational Technology Standards, Alaska Technology Standards
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II860
Course Description: This course is designed to teach students video camera operation and video editing.

Content Headings/Topics:

1. Camcorder basics
2. Basic video making
3. Photography and lighting
4. Audio techniques
5. Advanced camcorder and lighting techniques
6. Advanced editing
7. Digital mixer

Commercial (Video) Communications 1 (II860) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
Tech A4	1. Utilize the instruction manual and demonstrate basic camcorder functions and operations.		R4.2, 4.4			Demonstrate
Tech D1	2. Possess a working knowledge of tape formats and assess the strengths and weakness of each format.		R4.2			Verbal
Tech A4	3. Utilize accessory equipment to aid in video production.		R4.4			Demonstrate
	4. Utilize different shooting methods to achieve a desired outcome.		R4.4 Arts A3			Demonstrate
Tech A4	5. Using the functions of the camera, enhance the desired shot.		R4.4			Demonstrate
Tech D1	6. Perform in-camera editing.		R4.4			Demonstrate
Tech D1	7. Perform transitions from one scene to another that are logical and flow appropriately.		R4.4			Demonstrate
	8. Understand and utilize video lighting and techniques that relate to the Iris, lighting extremes, shutter speeds, color temperature, setting color balance, using available light, artificial light, lighting accessories, one-light techniques, and bounce lighting.		R4.2, 4.4 Arts A3			Demonstrate
	9. Assess the appropriate microphone for the application and desired effect.		R4.2 Arts A3			Demonstrate
Tech D1	10. Create sound tracks for the video project that utilize several techniques and enhance their video production.		R4.4			Demonstrate
Tech D1	11. Determine and use the appropriate audio editing/dubbing method that will achieve the desired sound effect.		R4.4			Demonstrate
Tech D1	12. Use lens, light, sound, camera shooting techniques, and miniatures to add special effects to the video production for a specific purpose.		R4.4 Arts A3			Demonstrate
Tech D1	13. Create scripts and storyboards that direct the production of the video and the activity that is being filmed.		W4.2 Arts A4			Written
Tech E5	14. Demonstrate the understanding of different career fields associated with the film and audio industry. **(B2)**		R4.2 Arts A7			Verbal

Commercial (Video) Communications 2 (II865) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Commercial Communications 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Web and Digital Communications
Career Cluster Area: Information Technology
Source of Occupational Skills Standards: National Educational Technology Standards, Alaska Technology Standards
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate
Te**ch Prep**: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency:_ X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II865
Course Description: This course is designed to teach students advanced video camera operation and video editing.

Content Headings/Topics:

1. Advanced camcorder operation
2. Computer enhanced video making
3. Video/audio production
4. Set building
5. Advanced audio and video equipment operation
6. Advanced editing techniques
7. Careers and pathways related to commercial communication

Commercial (Video) Communications 2 (II865) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
Tech A4	1. Utilize the instruction manual and demonstrate advanced camcorder functions and operations.		R4.2, 4.4			Demonstrate
Tech D1	2. Create video productions using differing tape formats and determine what types of filming promote the strengths of each format.		R4.2			Demonstrate
Tech A4	3. Be able to utilize accessory equipment to aid in video production.		R4.4			Demonstrate
Tech A4	4. Perform editing functions utilizing non-linear computer editing equipment.		R4.4			Demonstrate
Tech A4	5. Create transitions such as wipes, fades, dissolve, and other computer-enhanced effects.		R4.4			Demonstrate
Tech D1	6. Perform advanced in-camera editing.		R4.4			Demonstrate
Tech D1	7. Perform transitions from one scene to another that are logical and flow appropriately.		R4.4			Demonstrate
Tech D1	8. Create scripts and storyboards that direct the production of the video and the activity that is being filmed.		W4.2 Arts A4			Written
Tech A4	9. Assess the type of video being produced and format the production accordingly.		R4.2, 4.4			Demonstrate
Tech D	10. Use video and audio techniques to enhance the delivery of the production.		R4.4			Demonstrate
Tech A4	11. Control or establish the setting utilizing video/audio production techniques.		R4.4			Demonstrate
Tech D1	12. Create a set that facilitates the type of production activity being performed.		R4.4			Demonstrate
	13. Assess the appropriate microphone for the application and desired effect and placement on the set.		R4.2 Arts A3			Demonstrate
Tech D1	14. Generate characters and titles appropriate for the type of video being produced.		Arts A4			Written Demonstrate
Tech E5	15. Demonstrate an understanding of different career fields associated with the film and audio industry. **(B2)**		R4.2 Arts A7			Verbal

Construction 1 (II725) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None•
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Construction
Career Cluster Area: Architecture and Construction
Source of Occupational Skills Standards: International Builders Code (IBC), Hazardous Material Management Technology (HMT)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X__ Yes, and identify Certificate: NCCER
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II725
Course Description: This course is a beginning level construction class designed to teach students the basic information and techniques that apply to the building trades industry. Safe equipment use and processes will be covered.

Content Headings/Topics

1. Construction materials
2. Construction safety
3. Tools and machines
4. Framing, floors, walls and roofs
5. Exterior
6. Windows and doors
7. Weather proofing

Construction 1 (II725) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
HMT□20.17	1. Demonstrate safe shop and on site practices for self and others. **(A6)**		R4.2			Lab Assignment
IBC 2006 2301	2. Demonstrate proper selection of appropriate construction materials.		M1.4.1, 2.4.1, 2.4.4, 3.4.1 R4.2			Lab Assignment
AAAS-□294□.12C.4	3. Demonstrate proper use and care of hand and power tools. **(A6)**		M2.4.1, 2.4.4 R.4.2			Lab Assignment
IBC 2006 601, 1401	4. Demonstrate various layout and framing techniques.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, 5.4.6, 5.4.7 R4.4			Lab Assignment
IBC 2006 1405	5. Demonstrate correct manner of closing in exterior walls.		M2.4.1 R4.4			Lab Assignment
IBC 2006 1008	6. Demonstrate proper selection and installation of doors and windows.		M2.4.1 R4.4			Lab Assignment
IBC 1301	7. Demonstrate correct selection and applications of weather proofing materials.		R4.2			Lab Assignment

Construction 2 (II730) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Construction 1 or Woodworking 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Construction• Career Cluster Area: Architecture and Construction
Source of Occupational Skills Standards: American Chemical Society (CLT), International Builders Code (IBC), American Association for the Advancement of Science (AAAS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License __ No OR _X__ Yes, and identify Certificate: NCCER
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II730
Course Description: Construction 2 is a second semester course designed to provide students the opportunity to build on the skills learned in Construction 1, while at the same time learning advanced construction techniques and processes.

Content Headings/Topics:

1. Construction materials
2. Construction safety
3. Tools and machines
4. Site prep
5. Foundations
6. Building codes
7. Insulation
8. Flooring
9. Interior
10. Careers

Construction 2 (II730) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
CLT□2610	1. Demonstrate safe shop and on site practices for self and others. **(A6)**		R4.2			Lab Assignment
IBC 2006 601	2. Demonstrate proper selection of appropriate construction materials.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignment
AAAS□294□.12C. 4	3. Demonstrate proper use and care of hand and power tools. **(A6)**		M2.4.1, 2.4.4 R.4.4			Lab Assignment
IBC 2006 201	4. Define and use terms associated with site selection and design.		R4.2			Lab Assignment
IBC 2006 1801	5. Describe when and where to use the different type of foundation materials/designs.		R4.2			Lab Assignment
IBC 2006 Preface	6. Explain the purpose of Building Codes.		R4.2			Oral Presentation
IBC 2006 1301	7. Demonstrate the ability to select and install insulation materials.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignment
IBC 2006 601	8. Demonstrate the proper selection and installation of flooring material.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignment
IBC 2006 803	9. Demonstrate the proper selection of interior wall and ceiling coverings.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignment
	10. Identify various careers associated with the construction industry. **(B2)**		M10.4.2 R4.2			Lab Assignment

Construction 3 (II735) Curriculum Guide 9-12 Grades

Formerly Building Trades (II735)
Prerequisite Course(s): Woodworking 1 & 2 or Construction 1 & 2 or at the discretion of the teacher.
High School Credit =1/2 credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Construction
Career Cluster Area: Architecture and Construction
Source of Occupational Skills Standards: American Chemical Society (CLT), International Building Code (IBC)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X__ Yes, and identify Certificate: NCCER
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II735
Course Description: This course is an advanced level construction class designed to build on skills learned in the previous Construction classes and teach students advanced information and techniques that apply to the building trades industry. The NCCER "Basic Safety" Core will be taught in this class.

Content Headings/Topics:
1. Building safety
2. Building materials
3. Electrical
4. Plumbing
5. Heating systems
6. Framing techniques
7. Finishing techniques
8. Flooring techniques
9. Cabinet Installation

Construction 3 (II735) Curriculum Guide 9-12 Grades

State Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
	1. Review of standards for Construction 1 and Construction 2 **(A6)**		R4.2			Classroom Discussion
CLT 27:28	2. Demonstrate the ability per National Electrical Code specs to install service entrance and secondary circuits. **(A6)**		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignments
IBC 2006 2901	3. Demonstrate the basic principles for plumbing a house to meet local code.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignments
IBC 2006 1204	4. Demonstrate proper sizing / selection / installation of heating system.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignments
IBC 2006 602	5. Demonstrate advanced framing techniques.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignments
IBC 2006 801	6. Understand interior finishing procedure.		R4.2			Lab Assignments
IBC 2006 602.4.2, 602.4.4	7. Demonstrate advanced floor technique.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignments
IBC 2006 1203	8. Understand basic ventilation concepts.		R4.2			Lab Assignments
IBC 2006 801.1.1, 801.2	9. Demonstrate proper selection / application of interior and exterior finishes.		R4.4			Lab Assignments
	10. Demonstrate ability to install cabinets and finish trim work.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2 R4.4			Lab Assignments

Construction 4 (need #) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Construction 3
High School Credit =1/2 credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Construction
Career Cluster Area: Architecture and Construction
Source of Occupational Skills Standards: American Chemical Society (CLT), International Building Code (IBC)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X__ Yes, and identify Certificate: NCCER
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: needed
Course Description: This course is an advanced level construction class designed to build on skills learned in the previous Construction classes and to develop leadership and management skills that apply to the building trades industry.

Content Headings/Topics:

1. Building safety
2. Building materials
3. Electrical
4. Plumbing
5. Heating systems
6. Framing techniques
7. Finishing techniques
8. Flooring techniques
9. Cabinet Installation
10. Mentorship and Leadership skills

Construction 4 (need #) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
	1. Review of standards for Construction 1, 2, & 3 **(A6)**		R4.2			Classroom Discussion
CLT□27:28	2. Demonstrate the ability to mentor and supervise the installation of service entrance and secondary circuits per National Electrical Code specs. **(A6)**		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignments
IBC 2006 2901	3. Mentor and supervise the demonstration of the basic principles for plumbing a house to meet local code. **(A6)**		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignments
IBC 2006 1204	4. Mentor and supervise the demonstration of proper sizing / selection / installation of heating system. **(A6)**		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignments
IBC 2006 602	5. Mentor and supervise the demonstration of advanced framing techniques. **(A6)**		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignments
IBC 2006 801	6. Understand and discuss different interior finishing procedures.		R4.2			Lab Assignments
IBC 2006 602.4.2, 602.4.4	7. Mentor and supervise the demonstration of advanced flooring techniques. **(A6)**		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignments
IBC 2006 1203	8. Understand and discuss basic ventilation concepts.		R4.2			Lab Assignments
IBC 2006 801.1.1, 801.2	9. Mentor and supervise the demonstration of proper selection / application of interior and exterior finishes. **(A6)**		R4.4			Lab Assignments
	10. Mentor and supervise the demonstration of the ability to install cabinets and finish trim work. **(A6)**		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignments

Construction Manufacturing Metals (II920) Curriculum Guide 11-12 Grades

Formerly Construction Manufacturing II (II920)
Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: American Welding Society (AWS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II920
Course Description: The Construction Manufacturing Metals class is an "After School Construction Academy" class that meets approximately twice a week, four hours per day for approximately 17 days. This class will give the student a beginning level of exposure to oxy-acetylene welding and cutting operations, arc welding, and project construction. The class is designed to give the student an exploratory view of the Metal Production / Manufacturing Industry. The hands-on approach will also cover safety and hand power tool operations. The NCCER "Basic Safety" Core will be taught in this class. The NCCER "Basic Safety" Core will be taught in this class.

Content Headings/Topics:

1. Safety and health
2. Tools and equipment
3. Blue print reading
4. Layout
5. Metallurgy
6. Oxy-Acetylene processes
7. Shielded metal arc processes
8. Fabrication manufacturing
9. Welding careers

Construction Manufacturing Metals (II920) Curriculum Guide 11-12 Grades

State Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
AWS 1.21	1. Demonstrate safe shop procedures in all welding techniques. **(A6)**		R4.2, 4.4			Pre / Post Test
AWS-AD 1.5.34	2. Identify and properly use welding tools and equipment for each welding process. **(A6)**		R4.2, 4.4			Pre / Post Test
AWS-AD 1.6.4	3. Utilize measurements and measuring devices.		M2.4.1, 2.4.3			Pre / Post Test
AWS-EX 1.1.7d	4. Understand, identify, and interpret shop drawings.		R4.2			Pre / Post Test
AWS-AD 1.8a	5. Identify metal properties and the metallurgy of a weld bead.		R4.2			Pre / Post Test
	6. Evaluate and discuss possible welding careers. **(B2-5)**		M10.4.2 R4.2			Class Discussion
AWS-AD 1.10.1d	7. Demonstrate the shielded metal arc welding process.		R4.4			Lab Assignment

Construction Manufacturing Woods (II915) Curriculum Guide 11-12 Grades

Formerly Construction Manufacturing I
Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Construction
Career Cluster Area: Architecture and Construction
Source of Occupational Skills Standards: Unified Builders Code (UBC), Hazardous Material Management Technology (HMT)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II915
Course Description: The Construction Manufacturing Woods class is an "After School Construction Academy" class that meets approximately twice a week, four hours per day for approximately 17 days. The class will cover the basic understanding of construction. The hands-on approach will cover safety, hand power tool operations, and material selection. Students will learn wall framing, wall siding, roofing, trim work, and basic electrical wiring. The NCCER "Basic Safety" Core will be taught in this class.

Content Headings/Topics:

1. Construction materials
2. Construction safety
3. Tools and machines
4. Framing, floors, walls and roofs
5. Exterior
6. Windows and doors
7. Weather proofing

Construction Manufacturing Woods (II915) Curriculum Guide 11-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
HMT 20.17	1. Demonstrate safe shop and on site practices for self and others. **(A6)**		R.4.2, 4.4			Lab Assignment
UBC 97	2. Demonstrate proper selection of appropriate construction materials.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignment
AAAS-294.12C.4	3. Demonstrate proper use and care of hand and power tools. **(A6)**		M2.4.1, 2.4.4 R.4.4			Lab Assignment
UBC 97	4. Demonstrate various layout and framing techniques.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignment
UBC 97	5. Demonstrate correct manner of closing in exterior walls.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignment
UBC 97	6. Demonstrate proper selection and installation of doors and windows.		M1.4.1, 2.4.1, 2.4.4, 3.4.1, 4.4.2, R4.4			Lab Assignment
UBC 97	7. Demonstrate correct selection and applications of weather proofing materials.		R4.2, 4.4			Lab Assignment

Drafting I (II740) Curriculum Guide 9-12 Grades

Formerly Industrial Design Drafting 1
Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other yea
Pathway (Optional): Engineering and Technology
Career Cluster Area: Industrial Engineering
Source of Occupational Skills Standards: American Design Drafting Association (ADDA)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II740
Course Description: This course covers the principles of engineering design and computer-assisted drawing. It is recommended for students wishing to continue with the technology courses as well as for students going on to college.

Content Headings/Topics:

1. Introduction to basic drafting tools and techniques
2. Measurement and scales
3. Line usage
4. Views and planes
5. Dimension techniques
6. Pictorial view
7. Careers in drafting and design

Drafting 1 (II740) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
	1. Utilize basic drafting and design tools such as compasses, mechanical lead holders, and drafting machines.		M2.4.1-2.4.4 R4.4			Assignments
CADD1.4.07	2. Measure and draw within a standard tolerance.		M2.4.1			Assignments
	3. Understand and draw items to an appropriate scale.		M2.4.1-2.4.4			Assignments
CADD1.1.2	4. Given a print or drawing, determine the length of the object.		M2.4.1			Assignments
CADD1.1.4	5. Use lines and line weights that meet drafting standards.					Assignments
CADD1.1.4	6. Draw lines according to the alphabet of lines.					Assignments
	7. Given a print, determine the shape of an object based on the line types.		M5.4.1			Assignments
	8. Given an object, determine the appropriate lines and views they create.		M5.4.5			Assignments
CADD1.2.1	9. Use orthographic projection to develop views and object placement.					Assignments
CADD1.2.1	10. Understand the spatial relation between views and objects.		M5.4.5			Assignments
CADD1.4.07	11. Use appropriate dimension techniques.		M2.4.1			Assignments
CADD1.1.3	12. Determine and utilize appropriate symbols and letter techniques.		M8.4.1, M8.4.2			Assignments
CADD1.3.1	13. Identify various pictorial-drawing methods.		M8.4.2			Assignments
CADD1.3.1	14. Assess the drawing and select the most appropriate pictorial for the situation.		M8.4.2			Assignments
CADD1.3.1	15. Utilize pictorial drawing techniques.		M8.4.2			Assignments
CADDES.8.1	16. Identify careers related to design and drafting and develop a career path plan with a safety net that leads to a career in the drafting and/or design profession. **(B2-5)**		M10.4.2 R4.2			Assignments

Drafting 2 (II745) Curriculum Guide 9-12 Grades

Formerly Industrial Design Drafting 2
Prerequisite Course(s): Drafting 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Engineering and Technology
Career Cluster Area: Industrial Engineering
Source of Occupational Skills Standards: American Design Drafting Association (ADDA)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II745
Course Description: A continuation of Drafting 1, this course covers the principles of engineering design and computer-assisted drawing. It is recommended for students wishing to continue with the technology courses as well as for students going on to college.

Content Headings/Topics

1. Introduction to basic drafting tools and techniques
2. Measurement and scales
3. Line usage
4. Views and planes
5. Dimension techniques
6. Pictorial view
7. Careers in drafting and design

Drafting 2 (II745) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
Skills USA – Technical Standards Book p. 117, 127, 269 Drafting AutoCAD Cert. ADDA Cert.	1. Identify and practice drafting safety standards. **(A6)**		R4.2, 4.4			Lab Assignments Pre / Post Test
	2. Apply a variety of math strategies and skills to solve design problems.		M1.4.1,2.4.1-2.4.4, 3.4.1-3.4.5, 5.4.1-5.4.6, 7.4.1 R4.4,			Lab Assignments Pre / Post Test
Skills USA – Technical Standards Book p. 107	3. Develop and model employability skills. **(A1-7)**		M10.4.1, 10.4.2 R4.4 W4.2, 4.3, 4.4, 4.5			Lab Assignments
	4. Demonstrate and develop effective communication skills. **(A3)**		R4.2, 4.4 W4.2, 4.3, 4.4, 4.5			Oral Presentations
CADD	5. Recognize and demonstrate technical knowledge of drafting media and building materials (e.g., wood building materials, fasteners, and adhesives).		M1.4.1-1.4.5, 2.4.1-2.4.4, 3.4.1, 4.4.2 R4.4			Lab Assignments Pre / Post Test
CADD	6. Demonstrate proper use and maintenance of drafting tools and equipment.		M2.4.1-2.4.4 R4.4			Lab Assignments Pre / Post Test
CADD	7. Demonstrate industry standard practices for various drafting and building construction processes (e.g., floor systems, wall and ceiling framing, roof framing, and windows / doors).		M1.4.1-1.4.5, 2.4.1-2.4.4, 3.4.1, 4.4.2, 5.4.6, R4.4			Lab Assignments Pre / Post Test
UBC	8. Demonstrate knowledge of building codes and regulations related to the building industry.		R4.2, 4.4			Lab Pre / Post Test
CADDES.8.1	9. Explore and analyze architectural and engineering career opportunities. **(B1-5)**		M10.4.2 R4.2			Assignments

Drafting 3 (II750) Curriculum Guide 9-12 Grades

Formerly Industrial Design Drafting 3
Prerequisite Course(s): Drafting 1 & 2
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Engineering and Technology
Career Cluster Area: Industrial Engineering
Source of Occupational Skills Standards: American Design Drafting Association (ADDA)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II750
Course Description: This course covers the advanced drawing methods and techniques related to engineering design, basic descriptive geometry, and computer-assisted drawing. It is recommended for students exploring the career fields of engineering or other design drafting related occupations or educational programs. This course would also be helpful for a student who is exploring careers in electricity, electronic, computers, welding, and machining.

Content Headings/Topics:

1. Introduction to advanced drafting tools and techniques
2. Advanced CAD techniques
3. Basic descriptive geometry
4. Threads and fasteners
5. Electricity and electronic engineering symbols
6. Welding symbols
7. Mechanical engineering symbols
8. Civil engineering drawings and symbols
9. Data storage and transfer in a group environment
10. Careers in drafting and design

Drafting 3 (II750) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
	1. Utilize advanced drafting and design tools, such as AutoCad drafting program, scanners, pen plotter, and blue print machines.					Demonstrate
CADD4.5.3	2. Develop layout templates for use with various drawing activities.		M8.4.1, 8.4.2			Demonstrate
	3. Have a working knowledge of advanced and user defined menu options available with the CAD program the student is using.		M7.4.1, 7.4.2,			Demonstrate
CADD4.5.1	4. Utilize the advantages of advanced CAD functions to solve design problems.		M7.4.1, 7.4.2			Demonstrate
CADD4.5.1	5. Create user- defined menus for specific types of drawing.		M8.4.1, 8.4.2			Demonstrate
	6. Utilize interactive CAD databases.		M8.4.1, 8.4.2			Demonstrate
CADD1.4.10	7. Create dimension drawings using advanced appropriate symbols and tolerances.		M2.4.1-2.4.4			Demonstrate
CADDM.06	8. Using the CAD program, perform basic descriptive geometry activities.		M2.4.1-2.4.4 M5.4.1-5.4.6			Demonstrate
	9. Determine the slope, grade, bearing, true length, and point projection of a line.		M2.4.1-2.4.4 M5.4.1-5.4.6			Demonstrate
	10. Draw a plane in three views, and if given a second plane determine if there is a point of intersection.		M2.4.1-2.4.4			Demonstrate
	11. Draw various threads and fasteners given the specifications for the thread or fasteners.		M2.4.1-2.4.4			Demonstrate
	12. Have a working knowledge of threads and fasteners.					Demonstrate
	13. Draw threads and fasteners in detail, schematic, and simplified forms.		M2.4.1-2.4.4			Demonstrate
CADD4.5.3	14. Appropriately utilize electricity and electronic symbols on a working drawing.		M8.4.1, 8.4.2			Demonstrate
CADD3.3.8	15. Develop an electricity/electronic symbol library.		M8.4.1, 8.4.2			Demonstrate
CADD4.5.3	16. Appropriately utilize welding symbols on a working drawing.		M8.4.1, 8.4.2			Demonstrate
CADD3.1.8	17. Develop a welding symbol library.		M8.4.1, 8.4.2			Demonstrate
CADD4.5.3	18. Appropriately utilize mechanical symbols on a working drawing.		M8.4.1, 8.4.2			Demonstrate

Engineering Practicum (II805) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Drafting 1
High School Credit = ½ credit per semester (Postsecondary credit =0)
This course will be offered: _**X**__ every year OR ___ every other year
Pathway (Optional):
Career Cluster Area: Industrial Engineering
Source of Occupational Skills Standards: American National Standards Institute
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: ___ No OR _**X**_ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II805
Course Description: This course is designed to bring students together in engineering teams for an intensive semester of multiple engineering experiences. The students will apply math, science, English, and vocational skills in several problem-solving projects. The responsible control of technology to improve the quality of life for current and future generations is promoted.

Content Headings/Topics:

1. Engineering and design problem solving techniques
2. Academic and vocational skills related to the engineering field
3. Advanced CAD techniques related to the engineering field
4. Construction and evaluation of a prototype
5. Engineering support services
6. Engineering careers

Engineering Practicum (II805) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
	1. Assess and utilize fundamentals of engineering design and problem solving techniques.		R4.2			Pre / Post Test
MS11 84.3.2	2. Utilize drafting industry standard practices and procedures in working drawing development.		M1.4.1-5, M2.4.1-4, M3.4.1,M4.4.2, M5.4.6 R4.4			Pre / Post Test
	3. Understand environmental design factors affecting engineering design and planning.		R4.2			Pre / Post Test
	4. Produce working drawing presentation set that meets engineering standards and promotes the design to an audience.		R4.4			Lab Assignment
MS11 84.3.2	5. Produce tolerance and specifications documents that meet professional engineering standards.		R4.4			Lab Assignment
V706 A	6. Apply math skills to problem solve engineering activities.					Lab Assignment
	7. Apply science skills to problem solve engineering activities.					Lab Assignment
V702 S	8. Apply English skills in the development of engineering activities.		W4.1-4.5			Lab Assignment
CADD 3.0	9. Utilize computer aided drafting practices and procedures to produce engineering working drawings.		M8.4.1.			Lab Assignment
NSTA 164.2	10. Produce a model to represent the engineering activity.		M5.4.2, 5.4.6			Lab Assignment
	11. Utilize rendering techniques to present the engineering activity.					Lab Assignment
	12. Understand the testing services related to engineering activities.					Lab Assignment
	13. Identify presentation development providers and their activities. **(B5)**					Lab Assignment
	14. Identify career fields in engineering. **(B2)**		M10.4.2, R4.2			Lab Assignment
	15. Develop a career pathway including a safety net leading to a career in the engineering profession. **(B4)**					Lab Assignment
	16. Utilize all available technologies to research the career field of engineering. **(B2-5)**		M8.4.1			Lab Assignment

Introduction to Process Technology (II845) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 3)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Industrial and Engineering
Career Cluster Area: Science, Technology, Engineering, and Mathematics
Source of Occupational Skills Standards: National Center For Construction Education, & Research (NCCER), Alaska Process Industry Careers Consortium (APICC),Skills USA
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: ___ No OR _X_ Yes - If Yes, list postsecondary institution and number of postsecondary credits: Kenai Peninsula College – 3 cr.
Is this course brokered through another institution or agency:___ No OR _X_ Yes, and list institution/agency: Kenai Peninsula College

Course Master Number: II845
Course Description: Introduction to Process Technology is designed to give students an insight into the type of work that a Process Industry offers and the skills needed to work in that area.

Content Headings/Topics:

1. Industrial processes
2. Safety
3. Teamwork
4. Process industry terminology
5. Trends of processing
6. Equipment
7. Industrial math
8. Basic chemical concepts
9. Basic physical science
10. Diagrams and process flow

Introduction to Process Technology (II845) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
APICC KA1.1-2 APICC KA 8.8	1. Describe industrial processes and their systems' components.		R4.2			Pre / Post Test
APICC KA 2.1	2. Describe basic process principles as they relate to process operations, responsibilities, and required skills.		R4.2			Pre / Post Test
APICC1.2KA1.5 NCCER- Core Basic Safety	3. Practice and demonstrate behaviors of safety awareness. **(A6)**		R4.2			Pre / Post Test Lab Assignment
APICC KA 1.4 SkillsUSA #5	4. Demonstrate effective teamwork skills. **(A1)**					Lab Assignment
APICD KA 8-2	5. Communicate at a fundamental level utilizing the process industry terminology. Be aware of communications methods used in Alaskan process industries.		R4.4			Essay or written exam
APICC KA 1.1.1-2 A[OCC LA 8.8	6. Describe the development, evolution, and future trends of processing.		R4.2			Pre / Post Test
APICC KA 1.1 APICC KA 1.5 NCCER- Safety	7. Describe basic safety, health, and environ-mental standards relative to process industries. **(A6)**		R4.2			Pre / Post Test
	8. Identify and describe the purpose of equipment in systems and processes.		R4.2			Lab Assignment
	9. Apply basic industrial math concepts in processing situations.		M1.4.1-5, M2.4.1-4, M3.4.1-5, M4.4.3			Pre / Post Test Lab
APICC KA 8-1	10. Apply basic chemical concepts to processing situations.					Assignment
APICC KA 8-1 NCCER - RIGGING	11. Apply basic physical science concepts to processing situations.		R4.4			Pre / Post Test Lab Assignment
	12. Recognize the process technology diagrams that are used by process industries and demonstrate the ability to follow a simple process flow.		R4.2			Pre / Post Test

Manufacturing 1 (II815) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Woodworking, Construction, Metals, or Welding
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: Vocational-Technical Education Consortium of States, High Performance Manufacturing (HPM)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II815
Course Description: This course introduces students to skills and processes pertinent to manufacturing, including research and design, mass production and assembly, sales, and marketing. Manufacturing and project constructions are important components of this course.

Content Headings/Topics:

1. Safety and health
2. Manufacturing tools/systems
3. Research and development
4. Material selection
5. Business operation and marketing
6. Manufacturing process
7. Product design
8. Project mass production

Manufacturing 1 (II815) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
V701 C.5.01 HSE 7 MSSC NCCER – Core module	1. Demonstrate safe shop practices for self and others. **(A.6)**		R4.2			Lab Assignment
V7045 13 HSE7 MSSC NCCER – Core module	2. Explain how accident prevention is a responsibility of everyone. **(A6)**		R4.2			Pre / Post Test
	3. Using models and mock up, develop a product to meet design requirements.		M5.4.2, 10.4.2			Lab
	4. Select the best materials for a product/project.		R4.2			Lab
	5. Organize materials, tools, and workspace to efficiently manufacture a product.		R4.4			Lab
	6. Explain the importance of labor management. **(A7)**		R4.2			Oral Presentation
HPM 22.CT06 MSSC P6	7. Effectively train and assign a labor force to produce a project. **(A5)**		R4.4			Lab Assignment
HPM 32.QA.02 MSSC QA	8. Establish a procedure for quality control.		R4.2			Lab Assignment
	9. Identify various careers associated with manufacturing. **(B2)**		R4.2			Oral Presentation
MSSC- MPP02	10. Produce a product.		M5.4.2, 10.4.2 R4.4			Lab Assignment
	11. Package, market, and sell a produced product.		M10.4.2, R4.2, 4.4			Assignment

Manufacturing 2 (II820) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Manufacturing 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: Vocational-Technical Education Consortium of States, High Performance Manufacturing (HPM)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II820
Course Description: This course is a continuation of Manufacturing 1. Students will build on their skills and knowledge of the manufacturing process. Students will design and manufacture a product, and be exposed to topics related to careers and labor management.

Content Headings/Topics:

1. Safety and health
2. Manufacturing tools/systems
3. Research, development, and design
4. Material selection
5. Effective/efficient assembly line
6. Labor management
7. Quality control
8. Careers
9. Project mass production
10. Packaging, sales, marketing

Manufacturing 2 (II820) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
V701 C.5.01 MSSC HSE7 NCCER – Core module	1. Demonstrate safe shop practices for self and others. **(A6)**		R4.2			Pre / Post Test
V7045 13 MSSC HSE7 NCCER – Core module	2. Explain how accident prevention is a responsibility of everyone. **(A6)**		R4.2			Pre / Post Test
	3. Demonstrate safe and proper use of manufacturing tools. **(A6)**		R4.4			Pre / Post Test
	4. Explain the importance of research and development when producing a product.		R4.2 W4.2			Written Report
	5. Select the best material for a product/project.		R4.2			Lab Assignment
V706 EE	6. Produce a business plan for the development, marketing, and sale of a product. **(A4)**		M10.4.2 R4.2, 4.4 W4,2, 4.3			Lab Assignment
MSSC P6	7. Develop a production technique to produce a product.		R4.2			Lab Assignment
	8. Using models and mock up, develop a product to design requirements.		M5.4.2, 10.4.2			Lab Assignment
MSSC MPP02	9. Produce a product.		M5.4.2, 10.4.2 R4.4			Lab Assignment
	10. Identify various careers associated with manufacturing. **(B2)**		R4.2			Oral Presentation

Marine Technology (WW735) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Natural Resources
Career Cluster Area: Natural Resources
Source of Occupational Skills Standards: USCGA Safety
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency:_ **X**__ No OR ___ Yes, and list institution/agency:

Course Master Number: WW735
Course Description: This course is designed to provide students with an understanding of maritime occupations. The course includes experiences and exposure to the following areas: boat construction and nomenclature, safety and legal requirements, navigational rules, aides to navigation, piloting, marlinspike seamanship, weather, and fishing.

Content Headings/Topics:

1. Weather
2. Principles of boat handling
3. Principles of navigation
4. Safety procedures
5. Fish identification
6. Seafood processing
7. Commercial fishing techniques
8. Basic boat construction
9. Marlin spiking
10. Principles of cold water survival

Marine Technology (WW735) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
USCG	1. Describe the conditions and effects of weather in a marine environment. **(A6)**		R4.2 W4.2			Lab Assignment
USCG	2. Describe the principles of boat handling. **(A6)**		R4.2 W4.2			Lab
USCG	3. Identify the principles of navigation in regards to boating. **(A6)**		M8.4.1 R4.2			Lab
USCG	4. Differentiate between safe and unsafe actions on the water. **(A6)**		R4.2			Lab
	5. Properly identify marine life that is found in the local area.		R4.2			Test
	6. Identify current practices of seafood processing in a variety of species.		R4.2			Report
	7. Explore various types of commercial fishing such as gill netting, trawling, seining, trolling, pot fishing, and long lining. **(B2)**		R4.2			Lab Report
	8. Evaluate the strengths and weaknesses of various boat materials and designs.		R4.2 W4.2			Lab
USCG	9. Demonstrate the proper methods of nautical knot tying and marlin spiking.		R4.4			Lab Observation
USCG	10. Identify the principles of cold water survival.		R4.2			Lab

Metals Processes 1 (II765) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Manufacturing Production Process Development
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: American Welding Society (AWS),
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II765
Course Description: Metals 1 is designed to give the student an exploratory view of the different types of both hot and cold metal working processes.

Content Headings/Topics:

1. Safety
2. Bent metal processes
3. Types of metals
4. Sheet metal processes
5. Spot welding
6. Forging
7. Oxy-Acetylene welding
8. Arc welding

Metals Processes 1 (II765) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
AWS-EX 1.2.1 HSE2 NCCER – Core #1	1. Describe safe shop procedures for work areas. **(A6)**		R4.2			Pre / Post Test
AWS-MS 1.7.3	2. Identify ferrous and non-ferrous metals.		R4.2			Pre / Post Test
	3. Demonstrate pattern development and equipment processes for sheet metal.		R4.4			Lab Assignment
	4. Identify tools and equipment used in wrought metal bending.		R4.2			Lab Assignment
	5. Perform the spot welding metal process.		M2.4.1-4 R4.4			Lab Assignment
AWS 1.4	6. Demonstrate the proper oxy-acetylene cutting, welding, and brazing procedures.		M2.4.1-4 R4.4			Lab Assignment
AWS-AD 1.10.1d	7. Demonstrate the proper arc welding procedures.		M2.4.1-4 R4.4			Lab Assignment

Metals Processes 2 (II770) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Metals Processes 1 or Welding 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Manufacturing Production Process Development
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: American Welding Society (AWS), High Performance Manufacturing (HPM), Machining Skills from the National Institute for Metalworking Skills, Inc. (MS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II770
Course Description: Metal Processes 2 is a course for students who want to further pursue their interest in working with metal. Advanced hot and cold metal working processes and techniques will be covered in this class.

Content Headings/Topics:

1. Safety and health
2. Tools and equipment
3. Blue print reading
4. Heat treatment
5. Metal machining
6. Layout
7. Project construction
8. Career opportunities

Metals Processes 2 (II770) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
AWS-EX1.2.1 NCCER – Core #1	1. Demonstrate safe shop procedures in all metal processes. **(A6)**		R4.2			Lab Assignment
HPM37.MF.11	2. Identify and properly use all tools and equipment in metal working processes. **(A6)**		R4.2			Lab Assignment
AWS1.2a NCCER – Core #5	3. Demonstrate the ability to read blue prints and technical drawings.		R4.2			Lab Assignment
	4. Define heat treatment processes utilized in metalworking.		R4.2			Written Paper
KSAO 8.4	5. Identify and utilize the steps in machine tooling.		M2.4.1-4 R4.2			Lab Assignment
MS210.2.b	6. Employ specific metal machining techniques.		M2.4.1-4 R4.4			Lab Assignment
	7. Demonstrate proficiency in using metal layout and techniques.		M2.4.1-4 R4.4			Lab Assignment
	8. Demonstrate project fabrication and repair utilizing various metal processes.		M2.4.1-4 R4.4			Lab Assignment
	9. Explore and identify careers in metal processes. **(B2-5)**		M10.4.2 R4.2			Oral Report

Natural Resources Technology (II825) Curriculum Guide 9-12 Grades

Prerequisite Course(s): none
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: X every year OR ___ every other year
Pathway (Optional): Agriculture & Natural Resources
Career Cluster Area: Agriculture, Food, and Natural Resources
Source of Occupational Skills Standards: National Center for Construction Education and Research (NCCER), ABT – National
Voluntary Occupational Skills Standards: Agricultural Biotechnology Technician, National FFA Foundation
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: X No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: No OR ___ Yes, and list institution/agency:

Course Master Number: II825
Course Description: This course provides an introduction to the areas of forestry, wildlife, land management, marine science, aquaculture, production agriculture, and mineral extraction. Students are also introduced to careers in agriculture and natural resources management.

Content Headings/Topics:

1. Local, regional, and global natural resources
2. Managing forests, wildlife, and fisheries
3. Outdoor recreation planning
4. Safety practices
5. Tools, equipment, and technology
6. Careers in natural resource management

Natural Resources Technology (II825) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
AS 11/12.1	1. Locate and identify local, regional, and global natural resources.		R4.2			Assignment
	2. Apply principles of forest, wildlife, and fisheries management. **(A6)**		R4.4			Lab
NCCER Core Construction Safety Curriculum	3. Acquire and model safety practices from personal, team, and environmental perspectives. **(A6)**		R4.2			Lab
AG I 9.8 AM 11/12.1	4. Identify and operate a variety of tools, equipment, and technology used in the fields of natural resources and agriculture. **(A6)**		R4.4 M8.2.2, 8.2.3			Lab
AS 11/12.2	5. Plan laboratory and outdoor recreation events and activities.		R4.4 W4.2			Assignment
AS 11/12.6 AB 11/12.6	6. Demonstrate critical thinking, problem-solving, and conflict resolution strategies for use of natural resources and related issues.		M7.4.1, 10.4.2			Lab
AS 11/12.2	7. Plan laboratory and outdoor recreation events and activities.		R4.4			Assignment
AG I 9.1	8. Increase awareness of careers in natural resource management. **(B2-5)**		R4.4 W.4.2			Assignment

Power Mechanics 1 (II785) Curriculum Guide 9-12 Grades

Prerequisite Course(s): (Recommended) Principles of Technology or taken concurrently
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional):
Career Cluster Area: Industrial Engineering
Source of Occupational Skills Standards: American National Standards Institute
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _X_ No OR ___ Yes, and identify Certificate:
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II785
Course Description: This course is designed to provide students with fundamental skills necessary to understand basic engine function and modern shop practices and procedures.

Content Headings/Topics:

1. Safety and hazardous material
2. Tools and equipment
3. Fasteners and sealants
4. Principles of operation
5. Technical reading and writing
6. Career opportunities

Power Mechanics 1 (II785) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
OSHA Art.7-9	1. Describe hazards found in power mechanics shop. **(A6)**		R4.2			Pre / Post Test
OSHA Art.13	2. Describe the correct use of fire extinguishers. **(A6)**		R4.4			Pre / Post Test
OSHA Art.15	3. Describe proper handling and disposal of hazardous waste. **(A6)**		R4.4			Pre / Post Test
ASE 6	4. Demonstrate the functions of fasteners, gaskets, and sealants.					Lab Assignment
OSHA Art.8	5. Demonstrate proper use and care of power mechanic tools and equipment. **(A6)**		R4.4			Lab Assignment
ASE 6	6. Explain operating principles of various engines and systems.		R4.2			Lab Assignment
ASE 3	7. Demonstrate an ability to utilize fundamental troubleshooting skills.		R4.4			Lab Assignment
ASE 1-8	8. Explain common power plant applications and auxiliary systems.		R4.2			Lab Assignment
	9. Demonstrate effective technical reading and writing skills.		R4.2 W4.2			Lab Assignment
	10. Identify career opportunities in the power mechanics field. **(B2)**		R4.2			Lab Assignment

Power Mechanics 2 (II790) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Power Mechanics 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional):
Career Cluster Area: Industrial Engineering
Source of Occupational Skills Standards: American National Standards Institute
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II790
Course Description: This course is designed to provide students with fundamental skills necessary to understand basic engine function and modern shop practices and procedures.

Content Headings/Topics:

1. Safety
2. Tools and equipment
3. Careers
4. Support systems
5. Technical reading and writing

Power Mechanics 2 (II790) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
OSHAArt.1	1. Demonstrate safe shop procedures in the power mechanics atmosphere. **(A6)**		R4.2			Pre / Post Test
OSHAArt.8	2. Demonstrate safe and appropriate use of tools and equipment. **(A6)**		R4.2			Pre / Post Test
	3. Identify attractive career opportunities in the power mechanics trades. **(B2-5)**		R4.2			
ASE2	4. Demonstrate knowledge of starting and charging systems.		R4.4			Lab Assignment
ASE3	5. Demonstrate knowledge of fuel and exhaust systems.		R4.4			Lab Assignment
ASE2	6. Demonstrate knowledge of ignition systems.		R4.4			Lab Assignment
ASE7	7. Demonstrate knowledge of cooling systems.		R4.4			Lab Assignment
ASE5-8	8. Demonstrate knowledge of power / transmission systems.		R4.4			Lab Assignment
ASE1	9. Demonstrate knowledge of braking systems.		R4.4			Lab Assignment
ASE4	10. Demonstrate knowledge of suspension systems.		R4.4			Lab Assignment
ASE3	11. Demonstrate knowledge of emission control systems.		R4.4			Lab Assignment
	12. Demonstrate an ability to read manuals for content, write repair orders, and formulate diagnostic recommendations.		R4.2			Lab Assignment
ASE1-8	13. Demonstrate an ability to use diagnostic skills.		R4.4			Lab Assignment

Principles of Technology 1 (II830) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): Technology Education
Career Cluster Area: Applied Academics
Source of Occupational Skills Standards: American Electronics Association (AEA)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:

Course Master Number: II830
Course Description: This course is designed to present students with unifying concepts within modern mechanical, thermal, electrical, and fluid systems technologies.

Content Headings/Topics:

1. Work
2. Force
3. Rate
4. Resistance
5. Energy
6. Power
7. Force transformers

Principles of Technology 1 (II830) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
AEA 6.1	1. Describe force.		R4.2			Lab Pre / Post Test
AEA 6.3	2. Give examples of complex technological devices where force must be controlled, measured, or applied.		R4.2			Lab Pre / Post Test
AEA 6.4	3. Describe what force, pressure, voltage, and temperature difference have in common.		R4.2			Lab Pre / Post Test
AEA 3.25.3a	4. Describe or predict what happens to an object when forces on it are balanced and when forces on it are unbalanced.		R4.2			Lab Pre / Post Test
AEA 5.3.a	5. List occupations that require technicians to measure, control, or otherwise deal with force in complex devices. **(B2)**					Reports
AEA 4.1	6. Describe what is meant by work, force, rate, resistance, energy, power, and force transformers in general. Then describe work, force, rate, resistance, and energy, power, in mechanical, fluid, and electrical systems.		R4.2			Written Report
AEA 5.4	7. Describe how work in mechanical, fluid, and electrical systems involves the presence of force and movement.		R4.2			Lab Assignment
ANSI B1.13M	8. Identify correct SI and English units for work in mechanical, fluid, and electrical systems.					Project
AEA 3.2	9. Identify the effects of work, force, rate, resistance, energy, and power done in mechanical, fluid, and electrical systems.					Lab Assignment
	10. Measure work, force, rate, resistance, energy, and power in mechanical, fluid, and electrical systems.					Lab Assignment
AEA 2.2	11. Identify workplace applications where work, force, rate, resistance, energy, and power are measured and/or controlled.					Lab Assignment

Principles of Technology 2 (II835) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Principles of Technology 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: **X** every year OR ___ every other year
Pathway (Optional): Technology Education
Career Cluster Area: Applied Academics
Source of Occupational Skills Standards: NCAA Academic Requirement Committee
Eligibility for Nationally Recognized Skill Certificate(s)/State License: X No OR ___ Yes, and identify Certificate:
Tech Prep: **X** No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: X No OR ___ Yes, and list institution/agency:

Course Master Number: II835
Course Description: This course is designed to present students with unifying concepts within modern mechanical, thermal, electrical, and fluid systems technologies.

Content Headings/Topics:

1. Force Transfers
2. Resistance
3. Energy
4. Power

Principles of Technology 2 (II835) Curriculum Guide 9-12 Grades

State Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
NCCAA2-6B1, 2	1. Describe linear and angular momentum (in general terms).		R4.2			Lab Assignments
NCCAA2-C1, 2	2. State the law of conservation of momentum as it affects linear or angular motion.		R4.2			Pre / Post Test
NCCAA2-6D1-2	3. List examples of how momentum affects mechanical and fluid systems.					Assignment
NCCAA16B1,2, 5	4. Describe wave motion in general.		R4.2			Pre / Post Test
NCCAA2-6	5. Describe how waves transmit (move) energy.		R4.2			Pre / Post Test
NCCAA2-6D1,2, 5, 6	6. Identify workplace applications where waves and vibrations are found.					Pre / Post Test
NCCAA2-6D1	7. Describe the purpose of an energy converter.		R4.2			Pre / Post Test
NCCAA2-6	8. Identify converters that change mechanical energy to fluid or electrical energy.					Pre / Post Test Lab Assignments
NCCAA2-6	9. Identify converters that change fluid, electrical, and thermal energy to mechanical energy.					Pre / Post Test Lab Assignments
NCCAA2-6	10. Describe what is meant by the efficiency of an energy converter.		R4.2			Presentation
NCCAA2-6	11. Distinguish between an energy converter and a transducer.		R4.2			Assignment
NCCAD1,2, 5-7	12. Research educational requirements for related jobs. **(B4)**		W4.2			Presentation
NCCAD1, 2, 5-7	13. Discuss work skills required for related jobs. **(B5)**					Class Participation
NCCAD1, 2, 5-7	14. List jobs/careers available in the field. **(B2)**		W4.2			Class Participation

Welding 1_(II775)Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: American Welding Society (AWS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X_ Yes, and identify Certificate: (OSHA), (NCCER)
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II775
Course Description: Welding 1 will give the student a beginning level of exposure to oxy-acetylene welding and cutting operations, grinding operations and arc welding. At the end of this course students will be able to perform 1G and 2G operations using 6011. Safe equipment use and processes will be covered.

Content Headings/Topics:

12. Safety and health
13. Tools and equipment
14. Metallurgy
15. Oxy-Acetylene processes
16. Shielded metal arc processes
17. Fabrication manufacturing
18. Welding careers

Welding 1_(II775)Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
AWS 1.21	1. Demonstrate safe shop practices for self and others. **(A6)**		R4.2			Pre / Post Test
AWS-AD 1.5.34	2. Identify and properly use welding tools and equipment for each welding process. **(A6)**		M2.4.1-4 R4.4			Pre / Post Test
AWS-AD 1.6.4	3. Utilize measurements and measuring devices.		M2.4.1, 2.4.3			Pre / Post Test
AWS-EX 1.1.7d	4. Understand and identify shop drawings.		M7.4.1 R4.2			Pre / Post Test
AWS-AD 1.8a	5. Identify metal properties and the metallurgy of a weld bead.		R4.2			Pre / Post Test
	6. Evaluate and discuss possible welding careers. **(B2)**		M.10.4.2 R4.2			Class Discussion
AWS-AD 1.10.1d	7. Demonstrate the shielded metal arc welding process.		R4.4			Lab Assignment

Welding 2_(II780)Curriculum Guide 9-12 Grades

Prerequisite Course(s): Welding 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: American Welding Society (AWS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X_ Yes, and identify Certificate: (AWS Certification), (OSHA), (NCCER)
Tech Prep: __ No OR _X_ Yes - If Yes, list postsecondary institution and number of postsecondary credits (University of Alaska Anchorage - 4 Credits)
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II780
Course Description: Welding 2 is designed to give students an in depth study in advanced arc welding processes. Metallurgy properties and gas shielded welding techniques will be taught. At the end of this course students will be able to perform 1G, 2G, 3G, 4G, 1F, 2F, 3F and 4F operations using deep-penetration and low-hydrogen based rod. Safe equipment use and processes will be covered.

Content Headings/Topics:

1. Safety and health
2. Tools and equipment
3. Blueprint reading
4. Layout
5. Metallurgy
6. Oxy-Acetylene process
7. SMA processes
8. GMAW processes
9. GTAW processes
10. Fabrication, repair, and rigging/manufacturing
11. Advanced welding
12. Processes and techniques
13. Welding careers

Welding 2_(II780)Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
AWS-EX 1.2.1	1. Demonstrate safe shop practices for self and others. **(A6)**		R4.2			Pre / Post Test
AWS-AD 1.5.3E	2. Identify and properly use welding tools and equipment for each welding process. **(A6)**		M2.4.1-4 R.4.4			Lab Assignments
AWS 1.3.2	3. Demonstrate gas metal and flux core arc welding (GMAW & FCAW).		R4.4			Lab Assignments
AWS 1.3.4	4. Develop gas tungsten arc welding procedures (GTAW).		R4.4			Lab Assignments
AWS-EX 1.5.1c	5. Demonstrate project fabrication or repair utilizing the various welding techniques and layout procedures.		M2.4.1-4 R4.4			Lab Assignments
AWS-AD 1.12.2j	6. Identify and apply special advanced welding processes (plasma cutting and pipe welding).		M2.4.1-4 R4.2, 4.4			Lab Assignments
	7. Explore and identify various welding careers. **(B2)**		M10.4.1 R4.2			Lab Assignments

Welding 3_(need #)Curriculum Guide 9-12 Grades

Prerequisite Course(s): Welding 2
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: American Welding Society (AWS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X_ Yes, and identify Certificate: (AWS Certification), (OSHA), (NCCER)
Tech Prep: __ No OR _X_ Yes - If Yes, list postsecondary institution and number of postsecondary credits (University of Alaska Anchorage - 4 Credits)
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: **needed**
Course Description: Welding 3 will give the student a beginning level of exposure to aluminum welding operations and introduction to project fabrication. Students will mentor and supervise the demonstration of inexperienced/beginning welding students. The NCCER "Basic Safety" Core will be taught in this class. Safe equipment use and processes will be covered.

Content Headings/Topics:

1. Safety and health
2. Tools and equipment
3. Blue print reading
4. Layout
5. Metallurgy
6. Oxy-Acetylene processes
7. Shielded metal arc processes
8. Fabrication manufacturing
9. Welding careers

Welding 3_(need #)Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
AWS 1.21	1. Demonstrate safe shop practices for self and others. **(A6)**		R4.2			Pre / Post Test
AWS-AD 1.5.34	2. Identify and properly use welding tools and equipment for each welding process.		M2.4.1-4 R4.2, 4.4			Pre / Post Test
AWS-AD 1.6.4	3. Utilize measurements and measuring devices.		M2.4.1, 2.4.3			Pre / Post Test
AWS-EX 1.1.7d	4. Understand, identify, and interpret shop drawings.		M7.4.1 R4.2			Pre / Post Test
AWS-AD 1.8a	5. Identify metal properties and the metallurgy of a weld bead.		R4.2			Pre / Post Test
	6. Evaluate and discuss possible welding careers. **(B2)**		M10.4.2 R4.2			Class Discussion
AWS-AD 1.10.1d	7. Demonstrate the shielded metal arc welding process.		M2.4.1-4 R4.4			Lab Assignment

Welding 4_(need #)Curriculum Guide 9-12 Grades

Prerequisite Course(s): Welding 3
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: American Welding Society (AWS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X_ Yes, and identify Certificate: (AWS Certification), (OSHA), (NCCER)
Tech Prep: __ No OR _X_ Yes - If Yes, list postsecondary institution and number of postsecondary credits (University of Alaska Anchorage - 4 Credits)
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: **needed**
Course Description: Welding 4 will give the student an advanced level of exposure to steel and aluminum welding operations through project fabrication. Students will learn to mentor and supervise the demonstration of inexperienced/beginning welding students. Safe equipment use and processes will be covered.

Content Headings/Topics:

1. Safety and health
2. Tools and equipment
3. Blueprint reading
4. Layout
5. Metallurgy
6. Oxy-Acetylene process
7. SMA processes
8. GMAW processes
9. GTAW processes
10. Fabrication, repair, and rigging/manufacturing
11. Advanced welding
12. Processes and techniques
13. Welding careers

Welding 4_(need #)Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
AWS-EX 1.2.1	1. Mentor and supervise the demonstration of the basic principles for safe shop practices for self and others. **(A6)**		R4.2			Pre / Post Test
AWS-AD 1.5.3E	2. Mentor and supervise the demonstration of the basic principles for proper use of welding tools and equipment for each welding process. **(A6)**		M2.4.1-4 R4.2, 4.4			Lab Assignments
AWS 1.3.2	3. Mentor and supervise the demonstration of the basic principles for gas metal and flux core arc welding (GMAW & FCAW). **(A6)**		M2.4.1-4 R4.2, 4.4			Lab Assignments
AWS 1.3.4	4. Mentor and supervise the demonstration of the basic principles for gas tungsten arc welding procedures (GTAW). **(A6)**		M2.4.1-4 R4.2, 4.4			Lab Assignments
AWS-EX 1.5.1c	5. Mentor and supervise the demonstration of the basic principles for project fabrication or repair utilizing the various welding techniques and layout procedures. **(A6)**		M2.4.1-4 R4.2, 4.4			Lab Assignments
AWS-AD 1.12.2j	6. Mentor and supervise the demonstration of the basic principles for special advanced welding processes (plasma cutting and pipe welding). **(A6)**		M2.4.1-4 R4.2,4.4			Lab Assignments
	7. Explore and identify various welding careers. **(B2)**		M10.4.2 R4.2			Lab Assignments

Woodworking 1 (II705) Curriculum Guide 9-12 Grades

Prerequisite Course(s): None
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: Occupational Safety and Health Standards (OSHA), National Center for Construction Education Research (NCCER)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X_ Yes, and identify Certificate: (OSHA), (NCCER)
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___Yes, and list institution/agency:

Course Master Number: II705
Course Description: Woodworking 1 is an introductory course that gives students the opportunity to explore the equipment and processes involved in the completion of a quality wood project.

Content Headings/Topics

1. Safety
2. Wood and wood materials
3. Project layout and design
4. Measurement
5. Material selection
6. Hand tool processes
7. Machine tool processes
8. Project construction

Woodworking 1 (II705) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
OSHA Art.1 NCCER Core	1. Describe safe shop procedures for work areas. **(A6)**		R4.2			Pre / Post Test
OSHA Art.1	2. Locate safety equipment, escape routes, and emergency procedures. **(A6)**		R4.2			Pre / Post Test
OSHA Art.1 NCCER Core	3. Describe the importance of wearing personal protective equipment (PPEs). **(A6)**		R4.2			Pre / Post Test
OSHA Art.8 NCCER Core #3, 4	4. Demonstrate safe and proper use of hand and power tools**.(A6)**		R.4.4			Pre / Post Test
	5. Describe wood characteristics, and lumber and wood product production.		M1.4.1, 2.4.1, 3.4.1, 4.4.2. R4.2, 4.4			Pre / Post Test
	6. Identify lumber terms, defects, and grading.		R4.2			Pre / Post Test Lab Assignment
	7. Produce sources of woodworking plans.		R4.2			Lab Assignment
	8. Describe the importance of proper planning and drafting.		R4.2			Pre / Post Test Lab Assignment
	9. Develop a bill of materials for layout and measurement.		M3.4.1, 3.4.2, 3.4.3 R4.2 W4.2			Pre / Post Test Lab Assignment
	10. Demonstrate proper cutting, sanding, and shaping techniques.		M2.4.1 R4.4			Pre / Post Test Lab Assignment
NCCER Cabinet making Module	11. Describe different wood joining and wood finishing methods.		R4.2			Pre / Post Test Lab Assignment

Woodworking 2 (II710) Curriculum Guide 9-12 Grades

Prerequisite Course(s): Woodworking 1
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: Occupational Safety and Health Standards (OSHA), National Center for Construction Education Research (NCCER)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X_ Yes, and identify Certificate: (OSHA), (NCCER)
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency:_X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II710
Course Description: Woodworking 2 is a second semester course that is designed to give students the opportunity for building on the skills learned in Woodworking 1.

Content Headings/Topics

1. Safety
2. Problem solving
3. Advanced machine processes
4. Tool maintenance
5. Using working drawing
6. Project assembly and fasteners
7. Project construction
8. Advanced finish techniques
9. Mass production and manufacturing
10. Careers

Woodworking 2 (II710) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
OSHA Art.1	1. Demonstrate safe shop practices for self and others. **(A6)**		R4.2			Lab Assignment
MPP02	2. Demonstrate the ability to work with others in a common environment to produce a product. **(A1)**		R4.4			Lab Assignment
	3. Describe and demonstrate how to correctly apply various wood finishing materials.		R4.2, 4.4			Lab Assignment
MPP02	4. Explain the benefits of mass production of a product and/or parts of a project. **(A5)**		R4.2			Lab Assignment
	5. Identify various careers associated with the woodworking industry. **(B2)**		M10.4.2 R4.2			Lab Assignment
	6. Use working drawings from various sources to complete a project.		R4.2, 4.4			Lab Assignment
OSHA Art. 1, 2, 4, 8, 9	7. Demonstrate proper use of woodworking machines.		M2.4.1- 2.4.4 R4.4			Lab Assignment
OSHA Art.1	8. Construct a project using a working drawing, bill of materials, and plan of procedures.		M3.4.1, 3.4.2, 3.4.3 R4.2, 4.4 W4.2			Lab Assignment
OSHA Art.1, 7, 8	9. Describe the benefits of properly maintained shops, tools, and equipment.		R4.2			Lab Assignment

Woodworking 3 (II715) Curriculum Guide 9-12 Grades

Formerly Cabinetmaking 1 (II715)
Prerequisite Course(s): Woodworking 1 and 2 or at the discretion of the teacher
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: Occupational Safety and Health Standards (OSHA), National Center for Construction Education Research (NCCER)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X_ Yes, and identify Certificate: (OSHA), (NCCER)
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II715
Course Description: This course offers students knowledge and practical experience in the specialized area of cabinetmaking. Students are given an in-depth experience in design production and uses of cabinets. Students will learn to mentor and supervise the demonstration of inexperienced/beginning woodworking students. Safe equipment use and processes will be covered.

Content Headings/Topics

1. Safety
2. Machinery
3. Construction types
4. Industry standards
5. Materials
6. Design
7. Joints
8. Drawer construction
9. Door construction
10. Door types
11. Hardware
12. Finishes

Woodworking 3 (II715) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text:	Dist/ State Assessment	Formative Assessment
	1. Understand aspects of safety and use of machinery. **(A6)**		R4.2			Pre / Post Test
	2. Demonstrate ability to use machinery.		M2.4.1-4 R4.4			Lab Assignments
	3. Demonstrate knowledge of industry standards.		M1.4.1-5, 2.4.1-4, 3.4.1, 4.4.2, 5.4.6, R4.2, 4.4			Lab Assignments
UBC 97	4. Demonstrate knowledge of material types and use.		M1.4.1-5, 2.4.1-4, 3.4.1, 4.4.2 R4.2, 4.4			Lab Assignments
	5. Demonstrate understanding of different cabinet designs.		M7.4.1 R4.2			Lab Assignments
	6. Demonstrate knowledge of wood joints.		R4.2			Lab Assignments
	7. Demonstrate ability to construct and install drawers.		M2.4.1 R4.4			Lab Assignments
	8. Understand proper selection of hardware.		R4.2			Lab Assignments
	9. Demonstrate understanding of cabinet selection and interior design.		M7.4.1 R4.2			Lab Assignments
	10. Demonstrate ability to select and apply finishes.		R4.2, 4.4			Lab Assignments

Woodworking 4 (II720) Curriculum Guide 9-12 Grades

Formerly Cabinetmaking 2 (II720)
Prerequisite Course(s): Woodworking 1, 2, and 3 or at the discretion of the teacher
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _X_ every year OR ___ every other year
Pathway (Optional): Production
Career Cluster Area: Manufacturing
Source of Occupational Skills Standards: Occupational Safety and Health Standards (OSHA), National Center for Construction Education Research (NCCER)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: __ No OR _X_ Yes, and identify Certificate: (OSHA), (NCCER)
Tech Prep: _X_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _X_ No OR ___ Yes, and list institution/agency:

Course Master Number: II720
Course Description: This course is an advanced class that builds on the skills learned in Woodworking 3 plus introduces new techniques and skills. This course will include career identification. Students will mentor and supervise the demonstration of inexperienced/beginning woodworking students. Safe equipment use and processes will be covered.

Content Headings/Topics

1. Safety
2. Construction types
3. Industry standards
4. Materials
5. Design
6. Door construction
7. Hardware
8. Interior design
9. Installation
10. Careers

Woodworking 4 (II720) Curriculum Guide 9-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
	1. Understand aspects of safety and use of machinery. **(A6)**		R4.2			Lab Assignment
	2. Demonstrate knowledge of industry standards. **(A6)**		M1.4.1-5, 2.4.1-4, 3.4.1, 4.4.2, 5.4.6 R4.2, 4.4			Lab Assignment
UBC 97	3. Mentor and supervise the demonstration of material types and use. **(A6)**		M1.4.1-5, 2.4.1-4, 3.4.1, 4.4.2 R4.2, 4.4			Lab Assignment
	4. Mentor and supervise the demonstration of door design. **(A6)**		R4.2, 4.4			Lab Assignment
	5. Mentor and supervise the demonstration of constructing and installing door. **(A6)**		M2.4.1, M7.4.1 R4.2, 4.4			Lab Assignment
	6. Mentor and supervise the demonstration of proper selection of hardware. **(A6)**		R4.2, 4.4			Lab Assignment
UBC 97	7. Mentor and supervise the demonstration of proper installation techniques.**(A6)**		R4.2, 4.4			Lab Assignment
	8. Demonstrate knowledge of career opportunities. **(B2)**		M10.4.2 R4.2			Lab Assignment

Recommended Resources for Industrial Engineering

Recommended Resources: (websites, textbooks, essential equipment, reference materials, supplies)	
Uniform Building Code	http://www.electrical-contractor.net/The_Store/IC/1997UBC_Code.htm
National Center for Construction Education and Research (NCCER)PO Box 141104 Gainesville, FL 32614-1104 (352) 334-0911	Website: http://www.nccer.org/ Email: info@NCCER.org
(ASVAB) Armed Services Vocational Aptitude Battery: Local Military Recruiter	http://www.asvabprogram.com/
(Auto CAD) Autodesk Inc.	http://www3.autodesk.com/adsk/0,,129446-123112,00.html
National Education Technology Standards International Society for Technology in Education	http://www.cnets.iste.org
SkillsUSA PO Box 3000 Leesburg, VA 20177 (703) 777-8810	http://www.skillsusa.org/
American Design Drafting Association (ADDA)PO Box 799 Rockville, MD 20848 (301) 460-6875	Website: http://www.adda.org/
All Aspects of Industry	http://www.matsuk12.us/RunScript.asp?page =117&p =ASP\Pg117.asp Email: national@adda.org
High School Graduation Qualifying Examinations (HSGQE) Practice Test	http://www.eed.state.ak.us/tls/assessment/hsgqe.html
Occupational Safety and Health Administration (OSHA), US Dept. of Labor, Washington, DC	http://www.osha.gov/
American National Standards Institute (ANSI)	http://www.ansi.org/
International Code Council	http://www.iccsafe.org/cs/
Illinois Skill Standards	http://www.ioes.org/cte_curr/oss/index.html
Alaska Reading, Writing and Math Standards	http://www.eed.state.ak.us/tls/PerformanceStandards/
Alaska Content Standards	http://www.eed.state.ak.us/contentstandards/home.html
Cultural Standards for Students – Alaska Native Knowledge Network.	http://www.ankn.uaf.edu/stustan.html
American Chemical Society	http://pubs.acs.org/
American Association for the Advancement of Science	http://www.aaas.org

Vocational-Technical Education Consortium of States	http://www.kpbsd.k12.ak.us/Curriculum/voced/Standapp/VOCstds.htm
National Electrical Code	http://www.thebuildingcodestore.com/
Manufacturing Skills Standards Council (MSSC)	http://msscusa.org/
Alaska Process Industry Careers Consortium, APICC Standards Committee Critical Work Functions	
A Teacher's Guide to Use and Assessment of the Alaska Science Standards	http://www.ankn.uaf.edu/translating/contents.html
High Performance Manufacturing	https://http://www.hpmconsortium.com/index.asp
Vocational-Technical Education Consortium of States	http://www.kpbsd.k12.ak.us/Curriculum/voced/Standapp/VOCstds.htm
American Welding Society	http://www.aws.org/
Delta Mining Training Center PO Box 812 Delta Junction, AK 99737	http://dmtcalaska.org/OnlineClassInfo.html
Mineral Resources Education Program of British Columbia910-1111 Melville Street Vancouver, BC V6E3V6	http://bcminerals.ca/files/teacher_resources.php
US Dept of Labor Mine Safety and Health Administration	http://www.msha.gov/techsupp/acc/standardtestprocs/ASTP2050.pdf
Approval and Certification Center Standard Test Procedures	http://www.msha.gov/
Federal Aviation AdministrationAFS-100 800 Independence Ave. S W Washington, DC 20591	http://www.faa.gov/AVR/afs/
EAA Aviation Center Industry Standards PO Box 3086 Oshkosh, WI 54902-3086	http://www.eaa.org
Aviation System Standards6500 S MacArthur Blvd. Oklahoma City, OK 73169-6901	http://avn.faa.gov/index.asp?xml =index

Cooperative Work Experience

Cooperative Work For: (WW705) Curriculum Guide 11-12 Grades

☐ **Agriculture and Natural Resources**
☐ **Business and Management**
☐ **Construction and Design**
☐ **Education and Training**
☐ **Energy, Transportation, and Logistics**
☐ **Government and Public Administration**
☐ **Health Science**
☐ **Hospitality and Tourism**
☐ **Human Services**
☐ **Information Technology**
☐ **Law and Public Safety**
☐ **Manufacturing**
☐ **Marketing and Sales**

Prerequisite Course(s): Two 1/2 credit courses in a Career and Technical Education class, with one class related to student's career pathway – Junior or Senior Status
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): All Career Pathways
Career Cluster Area: All 13 Career Clusters listed above
Source of Occupational Skills Standards: NBEA (National Business Education Association), 2007 edition, http://www.nbea.org
Eligibility for Nationally Recognized Skill Certificate(s)/State License:? _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:
Course Master Number: WW705
Course Description: Cooperative work experience is a junior/senior level class that allows students to be employed through a paid work setting that offers work experience in the student's career pathway/cluster. Before the Co-op experience can begin, a minimum of "two" ½ credit CTE courses need to be taken, and one of these career and technical classes must be related to the worksite. The School District coordinator, employer, and student will help develop technical competencies, career goals, and a training plan.
Content Headings/Topics:

1. Competencies in the Chosen Career Cluster
2. Good work habits and attitudes
3. Current trends of business and industry
4. Employment preparation
5. Employer evaluation
6. Involvement in a CTSO
7. Research pertaining to the chosen Career Pathway

Cooperative Work For: (WW705) Curriculum Guide 11-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
CD5	1. Establish employer contacts and job opportunities.					Employment
CD.5-B	2. Prepare and complete a job application, resume, and employment letter. **(A3)**		W4.2			Skills USAInterview
	3. Describe the importance of first impressions and personal attire at a job interview. **(A3)**		R4.2			Skills USAInterview
CD-2	4. Identify a career cluster and pathway. **(B4)**					AKCIS
NBESE58	5. Develop an occupational adjustment plan. **(B4)**		W4.2			AKCIS
BL-3CD-3	6. Describe the safety procedures and labor laws that govern students in the work place. **(A6)**		R4.2			AK DEED Safety Manual
CD-3	7. Identify individual employer policies and procedures on the job.		R4.2			Employer Evaluation Form
CD-3	8. Develop positive interpersonal skills to communicate with the employer, customers, and fellow workers. **(A1)**					Employer Evaluation Form
	9. Adhere to the developed training plan and training agreement.					Training Agreement
BL-3	10. Exhibit proper and safe use of tools and equipment on the job site. **(A6)**					AK DEED Safety Manual
CD-5-A	11. Demonstrate and develop technical job skills needed for employment.					Skills USA
	12. Complete 180 hours of employment over an 18 week period for each ½ credit.					Time Sheets

Mentorship For: (WW715) Curriculum Guide 11-12 Grades

☐ **Agriculture and Natural Resources**
☐ **Business and Management**
☐ **Construction and Design**
☐ **Education and Training**
☐ **Energy, Transportation, and Logistics**
☐ **Government and Public Administration**
☐ **Health Science**
☐ **Hospitality and Tourism**
☐ **Human Services**
☐ **Information Technology**
☐ **Law and Public Safety**
☐ **Manufacturing**
☐ **Marketing and Sales**

Prerequisite Course(s): Concurrent related Career and Technical Class – Junior or Senior status
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): all Career Pathways
Career Cluster Area: All Career Clusters listed above
Source of Occupational Skills Standards: Alaska Family and Consumer Science Education (AKFCS)
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:
Course Master Number: WW715
Course Description: Mentorship is available to junior and senior level students who want to have an enriching work experience in a specific identified career. Students will be taught in a one-on-one basis with a technical or professional mentor from the community at an off campus work site. Students must choose a career from within their career pathway and demonstrate preparation and high motivation in that area of interest.
Content Headings/Topics:

1. Agriculture and natural resources competencies
2. Safety on the worksite
3. Positive work habits and attitudes
4. Employment preparation
5. Pre- and post-employer evaluation
6. Student journaling
7. Increase knowledge and insight of subject area
8. Training and requirements for chosen career
9. Related career fields within the same cluster
10. Value of Career and Technical Student Organizations

Mentorship For: (WW715) Curriculum Guide 11-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
CD5	1. Identify a specific career and a mentor.					Mentor list
	2. Complete mentor interview and select mentor. **(A3)**					Mentor selection
BL-3	3. Demonstrate safe work practices on the worksite. **(A6)**					AK DEED Safety Manual
	4. Exhibit technical writing techniques through journaling.		W4.2			Journal
	5. Demonstrate written and oral communication skills needed of the worksite.		W4.2			Journal
	6. Adhere to the developed training agreement and training plan.					Training Agreement
	7. Complete job application, resume, and employment letter. **(A3)**		W4.2			Skills USA Interview
CD.3	8. Identify and practice employer policies and procedures while on the job.		R4.2			Employer Evaluation
	9. Explore post-secondary training needed for advancement in the chosen career field. **(B2-5)**					AKCIS
E4	10. Participate in one of the vocational student leadership organizations.					CTSO Conference
	11. Complete an exit interview with the mentor. **(A3)**					Journal and Exit Interview
	12. Complete 90 hours of mentoring over an 18 week period.					Time Sheets

On the Job Training For: (WW710) Curriculum Guide 11-12 Grades

☐ **Agriculture and Natural Resources**
☐ **Business and Management**
☐ **Construction and Design**
☐ **Education and Training**
☐ **Energy, Transportation, and Logistics**
☐ **Government and Public Administration**
☐ **Health Science**
☐ **Hospitality and Tourism**
☐ **Human Services**
☐ **Information Technology**
☐ **Law and Public Safety**
☐ **Manufacturing**
☐ **Marketing and Sales**

Prerequisite Course(s): Two 1/2 credit courses in a Career and Technical Education class, with one class related to student's career pathway – Junior or Senior Status
High School Credit = ½ credit per semester (Postsecondary credit = 0)
This course will be offered: _**X**_ every year OR ___ every other year
Pathway (Optional): All Career Pathways
Career Cluster Area: All 13 Career Clusters listed above
Source of Occupational Skills Standards: NBEA (National Business Education Association), 2001 edition, http://www.nbea.org
Eligibility for Nationally Recognized Skill Certificate(s)/State License: _**X**_ No OR ___ Yes, and identify Certificate:
Tech Prep: _**X**_ No OR ___ Yes - If Yes, list postsecondary institution and number of postsecondary credits
Is this course brokered through another institution or agency: _**X**_ No OR ___ Yes, and list institution/agency:
Course Master Number: WW710
Course Description: On The Job Training is a junior/senior level class that allows students to be employed through a non-paid work setting that offers work experience in the student's career pathway/cluster. Before the OJT experience can begin, a minimum of "two" ½ credit CTE courses need to be taken, and one of these career and technical classes must be related to the worksite. The School District coordinator, employer, and student will help develop technical competencies, career goals, and a training plan.
Content Headings/Topics:

1. Competencies in the Chosen Career Cluster
2. Good work habits and attitudes
3. Current trends of business and industry
4. Employment preparation
5. Employer evaluation
6. Involvement in a CTSO
7. Research pertaining to the chosen Career Pathway

On the Job Training For: (WW710) Curriculum Guide 11-12 Grades

Standard	Objective	Sequence and Duration	Sample Teaching Strategy/ Possible Integration	Resources and Text	Dist/ State Assessment	Formative Assessment
CD3	1. Demonstrate the qualities of a good work ethic and a responsible employee. (**A1)**					Journal and Exit Interview
CD5	2. Develop positive employee and employer relations. **(A1)**					Journal and Exit Interview
	3. Establish employer contacts and job opportunities.					Journal and Exit Interview
CD2	4. Identify a career cluster and/or pathway. **(B2-5)**		W4.2			AKCIS
BL-2	5. Identify safety procedures on the work-site and labor laws that affect students in the workplace.					AK DEED Safety Manual
CD-5-B	6. Prepare and complete a job application, resume, and employment letter. **(A3)**		W4.2			Skills USA
	7. Describe the importance of first impressions and personal attire in the workplace. **(A3)**		R4.2			Skills USAInterview
	8. Adhere to the developed training agreement and training plan for the given work-site.					Training Ag.
CD-5-A	9. Demonstrate and develop technical job skills needed for site specific employment.					Journal and Exit Interview
E4	10. Participate in one of the vocational student leadership organizations that relate to the job site.					CTSO Conference
	11. Identify occupational adjustment and transferable skills within the career cluster. **(B4)**		W4.2			Journal and Exit Interview
BL3	12. Describe the job availability and job placement outlook within the career cluster. **(B2)**		R4.2			Journal and Exit Interview
	13. Complete 180 hours of non-paid work over an 18 week semester for each ½ credit.					Time Sheets