

DISTRICT NAME:

CTE Course Description and Standards Crosswalk

Course Information	
Course Name	Marine Technology
Course Number	WW735
Number of High School Credits	.5
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the EED-CTE system.)	Agriculture, Food and Natural Resources
Date of district Course Revision	11-2013
Career & Technical Student Organization (CTSO)	
CTSO embedded in this sequence	FFA
Occupational Standards	
Source of Occupational Standards	Alaska Marine Safety Education Association
Names/Numbers of Occupational Standards	Alaska Marine Safety Drill Conductors Card
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	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, aids to navigation, piloting, seamanship, weather, and fishing.
Instructional Topic Headings (please separate each heading by a semi-colon)	Weather; Principles of boat handling; Principles of navigation; Safety procedures; Fish identification; Seafood processing; Commercial fishing techniques; Basic boat construction; Principles of cold water survival; CPR, First Aid and AED
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	CPR/First Aid/AED- Adult
Course addresses:	
New Alaska ELA and Math Standards	Y
Alaska Cultural Standards	Y
All Aspects of Industry (AAI)	Y
Core Technical Standards	Y

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Employability Standards	Y
Employability Standards	
Source of Employability Standards	State of Alaska
Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	No
Date of Current Agreement	
Postsecondary Institution Name	
Postsecondary Course Name	
Postsecondary Course Number	
# of Postsecondary Credits	

Additional CTE Course Information

Author	
Course developed by	Gerald Byrne and Dan Bohrnsen
Course adapted from	Previous Version
Date of previous course revision	2007
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	No

Standards Alignment

Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
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Student Performance Standards (Learner Outcomes or Knowledge & Skill Statements)	Specific Occupational Skills Standard	Common Technical Core Standards	New Alaska ENG/LA Standards	New Alaska Math Standards	Alaska Cultural Standards	Employability/ Career Readiness Standards	All Aspects of Industry/ Systems	Assessment
Describe the conditions and effects of weather in a marine environment.	IMO STCW 95 table A-VI/1-1 & A-VI/1-4	AG-3 AG-ENV-2 AG-ENV-4 AG-ENV-5	R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12		E	A6	Community Issues, Principles of Technology	Lab Assignmen
Describe the principles of boat handling.	IMO STCW-F		R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12	G-MG.1 G-MG.3	E	A6	Principles of Technology	Lab
Identify the principles of navigation in regards to boating.	USCG and IMO Service Regulation s		R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12 R.7.9-12 W.2b.9-12 W.2d.9-12	A-CED.4 G-CO.1 G-CO.12 N-Q.1 N-Q.2 G-MG.3	D	A6	Principles of Technology Management	Lab
Differentiate between safe and unsafe actions on the water.	USCG 1.01-05 to 1.03-50	AG-3 AG-ENV-4 AG-ENV-5	R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12 W.2b.9-12 W.2d.9-12		A,B	A6	Health, Safety and Environment	Lab
Properly identify marine life that is found in the local area.		AG-ANI-7	R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12		A, B, E	A5	Community Issues	Formative Assessment

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Identify current practices of seafood processing in a variety of species.		AG-FD-4	R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12		B, D,E	A4	Technology Production Skills	Report
Explore various types of commercial fishing such as gill netting, trawling, seining, trolling, pot fishing, and long lining.	USCG 28.10 to 28.905	AG-5 AG-FD-1 AG-FD-3 AG-FD-4	R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12 W.2b.9-12 W.2d.9-12		B,D,E	A5	Management Technology Production Skills	Lab Report
Evaluate the strengths and weaknesses of various boat materials and designs.	USCG 32.01-1 to 32.90-1		R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12	G-MG.1 G-MG.3	B	A5	Technology Production Skills	Lab
Demonstrate the proper methods of nautical knot tying.	Boy Scouts of America Knot Tying Letter		R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12		B,D,E	A2	Labor, Technology Production Skills, Community Issues	Lab Observation
Identify the principles of cold water survival.	USCG 4.01-1 to 4.40-35		R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12		C3, E6	A6	HSE	Lab
Demonstrate how to respond to common first aid emergencies and how to respond to cardiac and breathing emergencies in adults, including the use	Red Cross: First Aid CPR	AG-3 AG-ENV-2	R.1.9-12 R.2.9-12 R.3.9-12 R.4.9-12		C3, E6	A6	HSE	Lab

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of automated external defibrillators (AED).	AED		W.2b.9-12 W.2d.9-12					

Instructional Resources

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

U.S. Coast Guard: <http://www.uscgboating.org/regulations/default.aspx>

US Coast Guard License Examination Preparation Deck Exam Illustration Book

Boy Scouts of America's Deck of Knots: <http://www.scouting.org/>

AVTEC.edu: <https://my.avtec.edu/Public/customSecure/images/Materials%20List%20fall%202012.pdf>

National Maritime Center: <http://www.uscg.mil/nmc/cfr/default.asp>

International Maritime Organization (IMO) Standards of Training & Certification for Seafarers (STCW)

International Maritime Organization (IMO): <http://www.imo.org/Pages/home.aspx>

The American Merchant's seaman's manual

Alaska Marine Safety Education Association, Marine safety Instructor Training Manual

International Code of Signals. NOAA, 2013

Standard chart equipment includes: Charting triangles, compass, divider, straight edge, nautical slide rule

American Red Cross: <http://www.redcross.org>

DISTRICT NAME:

Master/Mate & Operator Exam Preparation, Poston, Jeffrey V. and Gregory D. Szczurek, 1984

An Introduction to Fishing Vessel Stability, Transport Canada, 1997