

CTE Course Description and Standards Crosswalk

Course Information	
Course Name	Geospatial Applications in the Environment
Course Number	81110
Number of High School Credits	.5
Sequence or CTEPS (You must first have the Sequence or CTEPS entered into the EED-CTE system.)	Geospatial Technology
Date of district Course Revision	November 2014
Career & Technical Student Organization (CTSO)	
CTSO embedded in this sequence	Skills USA, FFA
Occupational Standards	
Source of Occupational Standards	States Career Cluster Initiative (SCCI) 2008;
Names/Numbers of Occupational Standards	AGPE, AGC
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	This is the capstone course in the STARS Certification series and is all project-based. Students get to showcase everything they have learned about GIS and RS by participating in a variety of real world projects. Each project integrates project planning, geographic problem solving, tools, software application, project management, data creation, data manipulation, data analysis, reports and presentations. Students have the option of becoming certified as a STARS Entry-Level GIS Technician.
Instructional Topic Headings (please separate each heading by a semi-colon)	Project Management Model; Campus Model Project (Project Planning, Project Implementation, Project Presentation); Agriculture/Natural Resources Project; Multidisciplinary Site Selection Project; Public Health and Safety Project (Bloom’s Taxonomy: Application, Analysis, Synthesis, Evaluation)
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	No
Course addresses:	
New Alaska ELA and Math Standards	Yes
Alaska Cultural Standards	Yes
All Aspects of Industry (AAI)	Yes
Core Technical Standards	Yes
Employability Standards	Yes
Employability Standards	
Source of Employability Standards	State of Alaska
Tech Prep	
Current Tech Prep Articulation Agreement? (Y/N)	N
Date of Current Agreement	

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Postsecondary Institution Name	
Postsecondary Course Name	
Postsecondary Course Number	
# of Postsecondary Credits	

Additional CTE Course Information

Author	
Course developed by	Ray DePriest, David Ralph, Dr. Stephen Brown; Revised by Don Berberich
Course adapted from	
Date of previous course revision	2008
Course Delivery Model	
Is the course brokered through another institution or agency? (Y/N)	N

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
Students will demonstrate the ability to identify a problem with a GIS, analyze data using appropriate techniques, and selecting a proper visualization technique.	AGPE.01.0 1.02	AG-NR.1,3,4	RST.11-12.1,3,4 SL.11-12.4 L.11-12.6	Math Practice 1,4,5,6,7,8	B2,4	A2,5	Planning Technical Skills Technology	Presentation Project
Students will demonstrate knowledge of where to find GIS and RS data.	AGPE.01.0 1.03	AG-NR.1-4	SL.11-12.4 L.11-12.6 WHST.11-12.7,8,9	Math Practice 1, 4, 5, 6, 8	B2.4	A2,5	Technical Skills Technology	Class Discussion
Students will explain the various stages of a completed GIS project.	AGC.02.01.01	AG-NR.1-4	L.11-12.6 RST.11-12.4	Math Practice 1, 3, 5, 6, 7, 8	B2,4	A2,5	Technical Skills Technology	Student/ Teacher 1-1 discussion
Students will demonstrate the ability to organize findings from a GIS query into map layouts and layers.	AGC.02.02	AG-NR.1-4	SL.11-12.4 L.11-12.6 WHST.11-12.7,8,9	Math Practice 1,4,5,6,7,8	B2,4	A2,5	Technical Skills Technology Planning	Demonstration
Students will complete a project that synthesizes information	AGC.10.01.	AG-NR.1-4	SL.11-	Math	B2,4	A2,5	Technical	Project

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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
learned in all of the other geospatial classes.	01		12.4 L.11-12.6 WHST.11-12.7,8,9	Practice 1,4,5,6,7,8			Skills Technology Planning Work Habits	Presentation
Students will interview stakeholders and identify/collect GIS data needed to complete a GIS project.	AGC.10.02.04	AG-NR.1-4 AG.5	SL.11-12.1,4 L.11-12.6 WHST.11-12.7,8,9	Math Practice 1, 3, 4, 5, 6, 7, 8	B2,4 D3	A2,5	Technical Skills Technology Planning Work Habits Community	Interview Project
Students will meet and interview a geospatial professional from their community.	AGC.10.02.04	AG-NR.1-4 AG.5	SL.11-12.1,4 L.11-12.6 WHST.11-12.7,8,9	Math Practice 1, 3, 4, 5, 6, 7, 8	B2,4 D3	A2,5	Technical Skills Technology Planning Work Habits Community	Interview Project
Students will communicate their project findings to school administrators, teachers, and other students.	AGPE.01.02.01	AG-NR.1-4	SL.11-12.1,4 L.11-12.6 WHST.11-12.7,8,9	Math Practice 1, 3, 4, 5, 6, 7, 8	B2,4 D3	A2,5	Technical Skills Technology Planning Work Habits Community	Presentation of Project
Students will create a GIS project that can be used to demonstrate their GIS proficiency to potential employers or college admission personnel.	AGPR.01.02.01	AG-NR.1-4 AG.3,5	SL.11-12.1,4 L.11-12.6 WHST.11-12.7,8,9	Math Practice 1, 3, 4, 5, 6, 7, 8	B2,4	A2,5	Technical Skills Technology Planning Work Habits	Present Final Project

Instructional Resources

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

Teacher Resource Pack

STARS Geospatial Application Certification Projects (Student Manual)