

## CTE Course Description and Standards Crosswalk

Course Information	
Course Name	Introduction to GIS/RS Concepts
Course Number	81090
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	FFA
Occupational Standards	
Source of Occupational Standards	States' Career Cluster Initiative (SSCI)
Names/Numbers of Occupational Standards	AGC, AGPG
Registration Information	
Course Description (brief paragraph – as shown in your student handbook or course list)	This class will introduce students to the concepts of planning, creating and analyzing a Graphic Information System (GIS) as well as to understand Remote Sensing (RS). Students will use the same data, imagery, and software that NASA uses to study the state of Alaska, their local community, and even their own school campus. Students will also learn how to operate a GPS. This course is the foundation for STARS Entry-Level GIS Technician Certification.
Instructional Topic Headings (please separate each heading by a semi-colon)	The Project Management Model; Graphic Information System Concepts; Remote Sensing Concepts; Aerospace Technology; Applications of Geographic Elements; Applications of Remotely Sensed Data; Geographic Relationship; Applied GIS Project Management
Summative Assessments and Standards	
Technical Skills Assessment (TSA)	None
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	
Postsecondary Institution Name	

**DISTRICT NAME: Matanuska Susitna Borough School District**

Postsecondary Course Name	
Postsecondary Course Number	
# of Postsecondary Credits	

### Additional CTE Course Information

Author	
Course developed by	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)	No

Standards Alignment
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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
Students will be introduced to Geographic Information System concepts.	AGC10.02.04	AG-NR 1-4 ST-ET3	RST.9-12.4	Math Practice1, 2, 4, 5, 6, 7, 8	B2,4	A2, 5	Technical Skills Technology	Class Discussion or Essay
Students will be introduced to the Project Management Model concept.	AGPG01.05	AG-NR 1-4 ST-ET3	SL.9-12.1.a-d	Math Practice1,2, 4, 5, 6, 7, 8	B2,4	A2, 5	Technical Skills Technology	Student Presentations
Students will learn to read and understand different map types and their elements.	AGC04.01	AG-NR 1-4 ST-ET3	RST.9-12.5	Math Practice1,2, 4, 5, 6, 7, 8	B2,4	A2, 5	Technical Skills Technology	Map Project
Student will be introduced to remote sensing concepts and how data is collected through aerial photography, satellite imagery, and GPS technology.	AGC	AG-NR 1-4 ST-ET3	SL.9-12.2 SL.9-12.5	Math Practice1,2, 4, 5, 6, 7, 8	B2,4	A2, 5	Technical Skills Technology	Map Project

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<b>Student Performance Standards (Learner Outcomes or Knowledge &amp; Skill Statements)</b>	<b>Specific Occupational Skills Standard</b>	<b>Common Technical Core Standards</b>	<b>New Alaska ENG/LA Standards</b>	<b>New Alaska Math Standards</b>	<b>Alaska Cultural Standards</b>	<b>Employability/ Career Readiness Standards</b>	<b>All Aspects of Industry/ Systems</b>	<b>Assessment</b>
Student will learn how GIS is used in a variety of career fields.	AGC09.02.01	AG2,5	L.9-12.6 RST.9-10.4	Math Practice1,2, 4, 5, 6, 7, 8	B2,4 D6 E8	A2, 5	Technical Skills Technology Planning	Project
Students will apply their knowledge of remote sensing by simulating two different data collecting missions.	AGC10.02.01	AG-NR 1-4 ST-ET5	SL.11-12.4 L.9-12.6 RST.9-12.3	Math Practice1,2, 3, 4, 5, 6, 7, 8	B2,4	A2, 5	Technical Skills Technology	Presentation Project
Student will understand and examine their community through Geographic Relationships.	AGC10.02.04	AG-NR 1-4 ST-ET3	WHST.11-12.8	Math Practice1,2, 4, 5, 6, 7, 8	B2,4 E8	A2, 5	Technical Skills Technology Community	Public Presentation
Student will demonstrate geospatial analysis by identifying and planning a local project.	AAGC10.02.04	AG-NR 1-4 ST-ET3	SL.11-12.4 WHST.11-12.8	Math Practice1,2, 4, 5, 6, 7, 8	B2,4	A2, 5	Technical Skills Technology Planning Community	Public Presentation and Project

**Instructional Resources**

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

Student Work Station – Computer with ArcGIS software, Gamin Hand Held GPS Unit

Series 1 Book 1 - Introduction to GIS/RS Concepts

Series 1 Book 2 - Introduction to GIS/RS Tools and Processes