

## BLACKHAWK SCHOOL DISTRICT

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### CURRICULUM

**Course Title:** Geospatial Technology I  
**Course Number:** 1055  
**Grade Level(s):** 9-12  
**Periods Per Week:** 5  
**Length of Course:** ½ year  
**Credits:** .5  
**Faculty Author(s):** Tim Linkenheimer  
**Date:** January 2013

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**COURSE DESCRIPTION:** This course is an introduction to geographic information systems (G.I.S.) using ArcView 9.3® software. This course will provide an overview of G.I.S. and careers related to this field. Emphasis will be placed on the areas of map making, data collection, file management, map digitizing and Internet Usage. Students will be working on project teams and will need prior basic computer knowledge. Upon completion of this course students will be able to formally make a G.I.S. map.

*The following outline provides a general overview of the course content, not a chronological timetable. The weeks denoted for each area provide an idea for the overall time spent working with a given topic throughout the school year.*

COURSE OUTLINE	OBJECTIVES (PA standard)	PROPOSED TIME / ACTUAL TIME	RESOURCES	LESSON REFLECTION (for future revisions)
1. Class Orientation	3.4.12.A3. Demonstrate how technological progress promotes the advancement of science, <b>technology</b> , engineering and mathematics ( <b>STEM</b> ).	2 days	Syllabus	
2. What is GIS?	3.4.10.B2. Demonstrate how humans devise <b>technologies</b> to reduce the negative consequences of other <b>technologies</b> .	3 days	Instructor Designed Power Point	
3. Introduction to ArcMap	3.4.10.C1.	4 days	Arc GIS Software (Moodle)	
4. Map Layouts	Apply the components of the technological design process. 3.4.12.C3.	5 days	Arc GIS Software (Moodle)	

5. Introduction to ArcCatalog	<p>Apply the concept that many technological problems require a multi-disciplinary approach. 3.4.12.E4 Synthesize the effects of information and communication systems and subsystems as an integral part of the development of the Information Age.</p>	5 days	Arc GIS Software (Moodle)	
6. Geodatabases		5 days	Arc GIS Software (Moodle)	
7. Data Fram Properties		5 days	Arc GIS Software (Moodle)	
8. Introduction to ArcToolbox		5 days	Arc GIS Software (Moodle)	
9. Projections		5 days	Arc GIS Software (Moodle)	
10. Geoprocessing		5 days	Arc GIS Software (Moodle)	
11. Select by Location		1 days	Arc GIS Software (Moodle)	
12. Information Fundamentals		5 days	Arc GIS Software (Moodle)	
13. Symbology		5 days	Arc GIS Software (Moodle)	

14. Select by Attributes		5 days	Arc GIS Software (Moodle)	
15. Digitizing		5 days	Arc GIS Software (Moodle)	
16. GIS I Final		1 days	Arc GIS Software (Moodle)	