

# Human Resource Services Cluster



## Geographic Information Systems (GIS) Program

### PROGRAM OF STUDY OVERVIEW:

The Geographic Information Systems (GIS) Program focuses on the information and communication systems that power and inform our emergency services. Utilizing the nationally recognized S.T.A.R.S curriculum, students will engage in a sequence of courses that culminate in the S.T.A.R.S Certification for GIS.



Entrance Grades	Foundations of Homeland Security and Emergency Preparedness	Introduction to Geographic Information Systems and Remote Sensing: S.T.A.R.S. Course I	Advanced Skill-Based Training for Geographic Information Systems and Remote Sensing: S.T.A.R.S. Course I	GIS Internship / Capstone Experience	Work Study (optional)
	1 Credit	1 Credit: Double-blocked for One Quarter*	1 Credit: Double-blocked for One Quarter*	1 Credit	
		*Students commit to completing S.T.A.R.S. I & S.T.A.R.S. II sequentially in a semester.			
<b>9<sup>th</sup> Grade Entrance</b> (By 8th Grade Application)	Spring Freshman	Fall Sophomore	Fall Sophomore	Spring Sophomore	Junior Senior
<b>10<sup>th</sup> Grade Entrance</b>	Spring Sophomore	Fall Junior	Fall Junior	Spring Junior	Senior
<b>11<sup>th</sup> Grade Entrance</b>	Spring Junior	Fall Senior	Fall Senior	Spring Senior	

### IN THIS PROGRAM

Students will:

- Manipulate and analyze census data using a GIS;
- Apply the concepts of Geocoding and Hyperlinks within a GIS;
- Manipulate remote sensing data to identify features and analyze data;
- Apply geospatial tools in solving GIS problems;
- Integrate external hardware, such as GPS, to incorporate real time data into a GIS;
- Manage a data inventory;
- Follow detailed project implementation steps to plan and create a GIS for a project; and
- Use GIS software and any necessary tools to gather and manipulate the project data.

### COURSE SEQUENCE

- Foundations of Homeland Security and Emergency Preparedness
- S.T.A.R.S. Course I
- S.T.A.R.S. Course II
- Internship/Capstone Experience



For course descriptions, please see the WCPS Course Catalog @ <https://www.worcesterk12.com/>

### STUDENT ORGANIZATION



### CERTIFICATIONS

- Geographic Information System (GIS) Certification
- ESRI ArcGIS Certification

### EARLY COLLEGE PROGRAM PARTNERS

- Anne Arundel Community College
- Harford Community College
- University of Maryland College Park