CTE Approval Self-Study Report

Geospatial Technology

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Self-study

> *Self-study is the first step in the career and technical education approval process. The self-study review is required for all existing programs and new programs seeking approval. Its purpose is to bring together partners to review the CTE program, propose relevant modifications, and evaluate the degree to which the program meets the policy requirements approved by the Board of Regents on February 6, 2001.*

Self-study review will include:

Curriculum review

Benchmarks for student performance and student assessment

Teacher certification and highly-qualified status of instructional staff

Work-based learning opportunities

Teacher and student schedules

Resources, including staff, facilities, and equipment

Accessibility for all students

Work skills employability profile

Professional development plans

Projected number of students to be served

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

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Geospatial Information Scientists and Technologists

*Quick Facts: Geospatial Information Scientists and Technologists	
2015 Median Pay	$85,240 annual $40.98 hourly
Typical Entry-Level Education	Most of these occupations require a four-year bachelor's degree, but some do not.
Work Experience in a Related Occupation	Less than 5 years
On-the-job Training	3 years
Number of Jobs, 2014	233,000
Job Outlook, 2014-24	Slower than average (2% to 4%)
Employment Change, 2014-24	37,700

What Geospatial Information Scientists and Technologists Do

Research or develop geospatial technologies. May produce databases, perform applications programming, or coordinate projects.

Work Environment

May specialize in areas such as agriculture, mining, health care, retail trade, urban planning, or military intelligence.

How to Become a Geospatial Information Scientists and Technologists

Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.

Pay

The median annual wage for geospatial information scientists and technologists was $85,240 annually in May 2015.

Job Outlook

Varies. See below.

Related Occupations

Occupational Title	SOC Code	Employment, 2014	Projected Employment, 2024	Change, 2014-24	
				Percent	Numeric
****Cartographers and photogrammetrists**	17-1021	12,300	15,900	29	3,600
****Geographers**	19-3092	1,400	1,400	-2	0
****Surveying and mapping technicians**	17-3031	57,300	52,900	-8	-4,300
****Computer systems analysts**	15-1121	567,800	686,300	21	118,600
***Geographic Information Systems Technicians**	15-1199	233,000	37,700	N/A	N/A
***Intelligence Analysts**	**33**-3021.06	34,900	36,700	5	1,800

* Estimates based on O*NET *15-1199.00 - Computer Occupations, All Other* category. There is no data available for this specific field. On the internet at https://www.onetonline.org/link/summary/15-1199.04 (visited February 15, 2017). Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2016-17 Edition, Private Detectives and Investigators, on the Internet at https://www.bls.gov/ooh/protective-service/private-detectives-and-investigators.htm (visited February 15, 2017).

**Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2016-17 Edition, Information Security Analysts, on the Internet at https://www.bls.gov/ooh/architecture-and-engineering/cartographers-and-photogrammetrists.htm (visited February 15, 2017).

New York Employment Demand Profile: **Geospatial Intelligence**

Source: Labor Insight Jobs (Burning Glass Technologies), Summary Demand and Requirements Table by Occupation, New York state data, Mar. 01, 2016 - Feb. 28, 2017, Monday, March 6, 2017

Category:		**Demand and Employment**				**Salary**		**Education level based on posting requirements (*excluding NA)**					**Education level of employed individuals**		
Source:		**Burning Glass**	**BLS/OES, 2015**			**Burning Glass**	**BLS/OES, 2015**	**Burning Glass**					**ACS, 2014**		
SOC Code (ONET-6)	Occupation Title	Number of Job Postings	Number Employed	% Change in Employment, 2014-2015	Projected Statewide Change in Employment, 2016-2026	Mean Advertised Salary	Mean Salary	% Requiring high school*	% Requiring Post-Secondary or Associate's Degree*	% Requiring Bachelor's Degree*	% Requiring Graduate or Professional Degree*	% with Unspecified Education	% with a H.S. diploma or less	% with Some College or an Assoc.	% with a Bachelor's or higher
15-1121	**Computer Systems Analysts**	8,784	36,720	9%	30.1%	$102,269	$97,000	6%	10%	88%	20%	41%	5%	23%	72%
15-1199	**Computer Occupations, All Other**	518	3,840	-3%	N/A	$101,212	$92,430	18%	7%	81%	22%	43%	10%	39%	51%
33-3021	**Detectives and Criminal Investigators**	236	8,940	-14%	0.8%	$64,732	$85,990	0%	0%	91%	41%	41%	8%	36%	56%
17-3031	**Surveying and Mapping Technicians**	150	1,810	-3%	2.4%	N/A	$44,650	64%	9%	37%	0%	48%	32%	57%	11%
19-3092	**Geographers**	24	N/A	N/A	N/A	N/A	N/A	0%	0%	50%	81%	33%	2%	11%	87%
17-1021	**Cartographers and Photogrammetrists**	20	150	-11%	33.3%	N/A	$76,160	15%	46%	69%	0%	35%	1%	21%	79%

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A. Curriculum Review

> *The curriculum review is a step in the self-study process. It is an opportunity for members of the self-study team to evaluate the proposed curriculum for completeness in terms of the knowledge, skills, and competencies required in the program field. The team reviews the curriculum to ensure that course content in the career and technical education program meets State Education Department regulations, contributes to achievement of state and industry standards, and prepares students for successful completion of a technical assessment. Approved curriculum content is nonduplicative, challenging, organized along a continuum of difficulty, and free of bias.*
>
> *CTE program approval does not constitute Department approval or endorsement of proprietary curriculum or related curriculum products. Program approval indicates only that a school district or BOCES has provided the Department with assurances that the curriculum review has been completed.*

Process

- The school district or BOCES identifies the faculty members and other individuals who will be involved in conducting the curriculum review
- The school district or BOCES determines the procedures used in completing the curriculum review
- Reviewers confirm that CTE program content aligns with state CDOS standards, relevant state academic standards, and related business and industry standards
- Reviewers confirm that CTE program content includes integrated or specialized units of credit
- Reviewers confirm that the CTE program meets unit of credit and other distributive requirements
-

Documentation

Documentation of the curriculum review is maintained by the school district or BOCES and is updated whenever modifications are made to the approved CTE program. Recommendations from curricular review should be included in the self-study report and reviewed by the external committee.

Resources

New York State graduation requirements

http://www.emsc.nysed.gov/part100/pages/1005.html

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

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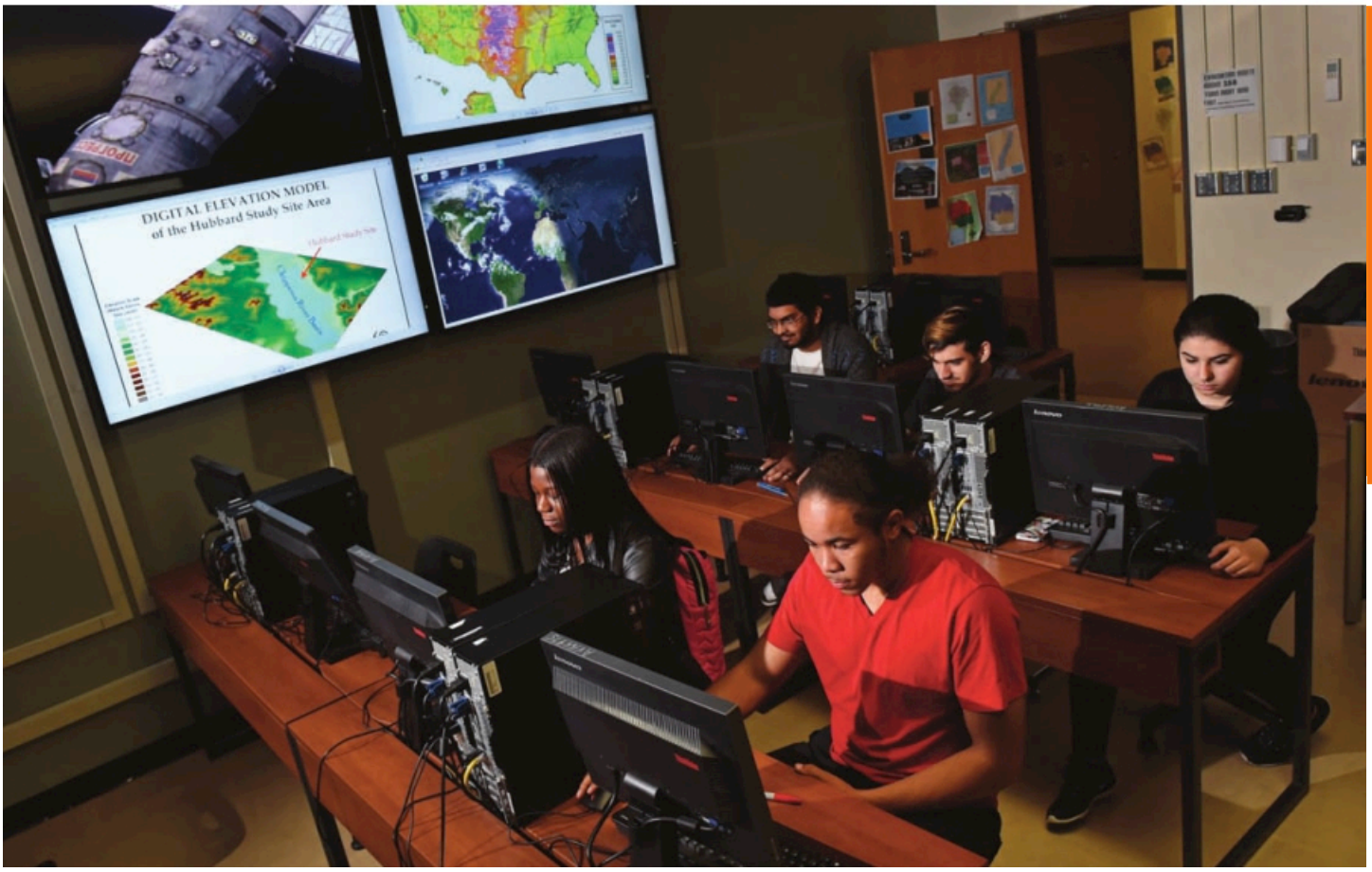

Geospatial Technology

Geospatial analysis has existed as long as humans have made and studied maps – but its importance to the intelligence community has skyrocketed in the past several years, with Unmanned Aerial Vehicles and drones increasingly being used to both gather intelligence and take down enemy targets.

Would you like to be the eyes of the intelligence community? Then consider a job in one of the fastest-growing arenas of national security – geospatial intelligence.

In this program at the Public Service Leadership Academy at Fowler, you will build strong foundations in:
· Mathematics and science
· Computer skills and broad research
· Writing and analysis skills

If you're the kind of student who has always been good with maps, you know how to get the most from your GPS device or Google Earth, and possibly have a background in Geographic Information Systems (GIS) – then GEOINT might be the perfect fit for you.

Career Opportunities:
Advanced Visualization Specialist, Aeronautical Analyst, Geodetic Surveyor, Military Analyst, Earth and Orbit Scientist, Radar Image Scientist, Thermal Infrared Image Scientist, Geospatial Data Steward

Course of Study Geospatial Technology

9th Grade

I PSLA
Exploratory
(1 Credit CTE)

10th Grade

I Geospatial
Intelligence 100
GIS100
(1 Credit CTE)

11th Grade

I Geospatial
Intelligence 200
GIS200
(2 Credits CTE)
I Geospatial CTE
Integrated
Science
CTE300
(1 Credit)

12th Grade

I Geospatial
Intelligence 300
GIS300
(2 Credits CTE)
I Geospatial CTE
Integrated
English
CTE400
(1 Credit)

DISTRICT REQUIREMENTS

I Students must pass Intro to Geospatial Intelligence 100, 200 and 300 to challenge the course approved technical assessment.

I All students in 9th grade will receive Career and Financial Management and CTE Exploratory classes.

I Student will have earned the 11th grade integrated science credit upon successful completion of the Geospatial Intelligence 100 and 200.

I Student will have earned the 12th grade integrated ELA credit upon successful completion of the Geospatial Intelligence 100, 200 and 300.

I Student will receive the CTE Endorsement upon successful completion of the Geospatial Intelligence Program and must pass the prescribed technical assessment and complete a commencement level project.

Course Calendar Geospatial Technology

UNITSOFSTUDY

QUARTER

1

I Getting Started in our Classroom
I What is GIS?
I Introduction to ArcGIS
I How does Geography fit in to GIS?
I What is a topographic map?
I What is photogrammetry?
I What is the Global Positioning System and how does it work?
I Basics of Remote Sensing

2

I Introduction to ESRI ArcGIS and ArcMap
I Cartography with Map Layouts
I Symbology and Classification

3

I Geoprocessing Basics
I Data Frames and Coordinate Systems
I Information Fundamentals

4

I Selection and Queries
I Basics of Satellite Imaging
I Putting it All Together
I Final Project Assignment (Local Crime Mapping Analysis in conjunction with the CSI course)

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Syracuse City School District
Career and Technical Education Program
Course Syllabus
GIS100: Geospatial Intelligence 100

Geospatial Technology Program Overview

At the completion of this program, students will understand and be able to apply the fundamentals of geospatial technology, geographic information science, remote sensing, global positioning systems (GPS) and spatial data analysis. Students will complete hands-on, real-world projects, develop critical thinking, analysis and problem-solving skills. The program is designed to prepare students for post-secondary education and a wide range of careers using GIS, GPS, spatial analyses, remote sensing, and digital mapping. Students will also have the opportunity to earn integrated science, ELA and college credits.

Course Description

In this course students will define Geographic Information Systems (GIS), identify career opportunities in GIS, and learn key tools used by GIS specialists. Students will participate in hands-on activities and lessons that use ESRI software to create and analyze maps and display mapping data. This course will contribute to the preparation of students for a wide range of careers using GIS, GPS, spatial analyses, remote sensing, and digital mapping.

Course Objectives

1. Students will define GIS and explain its application in a variety of career fields.
2. Students will learn how to identify datasets, understand map projections and apply basic cartography principles.
3. Students will understand the basic concepts of remote sensing, Global Positioning Systems and satellite imaging.
4. Students will be able to use ESRI ArcMap software to manipulate geographic data, create maps and digital datasets.
5. Students will be able to use ESRI ArcMap software to perform basic analyses of geographic data.

Integrated Academics

N/A

Student Equipment and Supplies

- **School will provide**: All necessary lab and classroom equipment
- **Student will provide**: A notebook for taking and saving notes; pen/pencils.

Textbook

Technical articles and/or worksheets may be provided by teacher for some assignments. Textbooks available for reference/class assignments.

Grading

20% Class attendance/Participation
10% Oral Presentation
30% Assignments
20% Mid-Term Exam (Practical)
20% Final Exam (Practical)

- All work is due at the time and day specified when the assignment is given. Submission details for work to be graded will be given at the time the work is assigned. Quizzes will be given throughout the semester.
- The lowest quiz score (one score only) will be dropped when calculating the final course grade.

Points

One day a month, as specified in advance by teacher, students are encouraged to 'Dress for Success'. Students will be awarded 1 bonus point for every time they arrive to school on that day, dressed in workplace professional clothing (more explanation in class).

Additional Course Policies

Students are required to follow all classroom professionalism and safety procedures. Please review class policies.

Course Calendar

Quarter	Units of Study
1	• Getting Started in our Classroom • What is GIS? • Introduction to ArcGIS • How does Geography fit in to GIS? • What is a topographic map? • What is photogrammetry? • What is the Global Positioning System and how does it work? • Basics of Remote Sensing
2	• Introduction to ESRI ArcGIS and ArcMap • Cartography with Map Layouts • Symbology and Classification
3	• Geoprocessing Basics • Data Frames and Coordinate Systems • Information Fundamentals
4	• Selection and Queries • Basics of Satellite Imaging • Putting it All Together • Final Project Assignment (Local Crime Mapping Analysis in conjunction with the CSI course)

Syracuse City School District
Career and Technical Education Program
Scope and Sequence
GIS 100: Geospatial Technology 100

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CTE Standards	CCLS Literacy, ELA Math, Science
Weeks 1-4 **Getting Started in our Classroom & Discovering GIS**	• Who are we as individuals and a group and what are our interests? • What is GIS and how can we use it? • What kinds of career opportunities exist in the Geospatial field?	• Get to Know each other & Team-Building Activities • Develop classroom rules and establish relationships • Identify the G.I.S. in Geographic Information Systems • Identify three types of Geospatial Technologies • Create a definition for GIS • Learn career opportunities in the geospatial field • Identify how GIS can be used to solve real-world problems	Independent Assignments: • Data Sources Quiz • Class Participation • GIS Worksheet Assignments	**Career Ready Practices** CRP2,4,5	**Literacy** RST.9-10.3,4,7
				Cluster Standards ST2,ST5	**ELA** RSI.9-10.4,6 W.9-10.2,4 SL.9-10.1,2,4,5
				Pathway Standards ST-ET2 ST-SM	**Math** HSN.Q.A.1 HSG.CO.A.1 HSG.MGA.1
					Science STD2,6 HS-ESS2-2
Weeks 5-10 **Basic Principles of GIS, Mapping and GPS**	• How does Geography fit in to GIS? • What is a topographic map? • What is the Global Positioning System and how does it work? • What is geocaching? • How is GPS used to geocache? • How do we use a scale?	• Latitude/Longitude Review • Understand how to read topographic maps and what they represent • Define the basic principles of photogrammetry and why it is important in GIS • Create a pair of 3D anaglyph glasses • Define GPS and how it works • Identify uses for GPS • Learn how to use handheld Garmin GPS receivers • Learn how to geocache • Identify two types of data used in GIS • Identify three different types of Vector Data and	Exercises: • Topics Quiz • Class work • Successful field trip to geocache • Completed anaglyph assignment • Geocache survey	**Career Ready Practices** CRP2,4,5,7,8,11	**Literacy** RST.9-10.3,4,7
				Cluster Standards ST2,4,6 IT2	**ELA** RSI.9-10.1,4 SL.9-10.1,2,4,5
				Pathway Standards ST-SM2,4	**Math** HSG.MGA.1,3
					Science STD1,2,6,7 HS-ESS2-2 HS-ESS2-3 HS-PS4-5

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CTE Standards	CCLS Literacy, ELA Math, Science
		their uses • Identify three types of Raster Data and their uses			
Weeks 11-16 **Introduction to ESRI ArcGIS and ArcMap** **Cartography with Map Layouts** **Cartography with Map Layouts**	• What is ESRI? • What are the basic tools of ESRI's software? • What is the difference between points, lines, and polygons? • What is ArcCatalog? • What can ArcMap be used for? • How do we add data? • What is a basemap? • How does ArcGIS Online work? • How does one create a map layout? • What elements need to be included in a map layout?	• Define ESRI • Describe the difference between ArcGIS Basic, Standard and Advanced • Describe the difference between ArcMap, ArcCatalog, and ArcToolbox • Operate the ArcMap interface • Identify, select and locate ArcMap's menus and toolbars • Illustrate how to add data to ArcMap (including BaseMaps) • Explain different geospatial file formats such as: Shapefiles, Geodatabases, Coverages and Raster • Locate specific data sets using ArcCatalog • Describe the difference between Windows Explorer and ArcCatalog • Recognize data view versus map view • Identify the common map elements to a map layout • Create a blank map document that can be populated with geospatial data for analysis • Create an inset map with an extent indicator to provide the spatial context for the main data frame	Exercises: • Introduction to ArcMap • Introduction to ArcCatalog • Shapefile Formats exercise • Map Layout vs. Map View Lab • Map document lab exercise • Inset map exercise • Map template lab exercise Independent Assignments: • Cartography with Map Layouts • Complete Map Layout • Vocabulary Quiz • Performance Quiz	**Career Ready Practices** CRP2,8,11 **Cluster Standards** ST2,4 IT2 **Pathway Standards** ST-ET2,3	**Literacy** RST.9-10.3,7 **ELA** RSI.9-10.1,3,4,6,7 W.9-10.4 SL.9-10.1,2 **Math** HSN.QA.2,3HSG.MGA.1 **Science** STD2,6 HS-ESS1-5 HS-ESS2-2

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CTE Standards	CCLS Literacy, ELA Math, Science
(continued)		• Demonstrate the use of a map template to create uniform looking maps • Be able to set up a map page layout, determine the legend content and settings, choose which map elements to include, and export the map to share with others			
Weeks17-19 **Symbology and Classification**	• What is symbology? • How can we use ArcMap to predict deforestation?	• Explain symbology and how it is used • Describe the various methods for symbolizing data • Choose an appropriate method of symbology for any given circumstance • Explain what layer files are and how they can be useful	Exercises: • Single Symbol Classification • Quantities – Graduated colors and symbols • Categories – Unique Values Independent Assignments: • Symbology Quiz	**Career Ready Practices** CRP2,11	**ELA** RSI.9-10.1,3,4,6,7 W.9-10.4 SL.9-10.1,2
				Cluster Standards ST2,4,6	**Literacy** RI.9-10.3 RH.9-10.7 RST.9-10.3
				Pathway Standards ST-ET6	**Math** HSN.QA.2 HSG.MGA.1
					Science STD1,2,6 HS-ESS2-2 HS-ESS3-6

Week 20-25
 	
Geoprocessing Basics
	• What are geoprocessing tools and how are they used?
	• How can we use geoprocessing tools to answer a real-world question (ArcMap Lesson Gallery example)?
		• Locate and use different Geoprocessing tools, including:
		  ○ Clip
		  ○ Dissolve
		  ○ Intersect
		  ○ Buffer
		  ○ Multiple Ring Buffer
		  ○ Merge
		  ○ Append
		• Determine the appropriate tool for different situations
		• Determine the appropriate workflow for each tool to
			Exercises:
			• Clipping
			• Dissolve and Intersect
			• Buffer and Multiple Ring Buffer
			• Merge and Append
			
			Independent Assignments:
			• Geoprocessing Basics
			• Quiz
			• Build a graphic organizer
			• Complete the ArcMap deforestation project (lesson gallery).
				Career Ready Practices
				CRP2,4,8,11
					Literacy
					RST.9-10.3,7

				Cluster Standards ST2,6 IT2	**ELA** RSI.9-10.1,3,4,6,7 W.9-10.4 SL.9-10.1,2,4,5,6
				Pathway Standards ST-ET2,3,4 ST-SM2	**Math** HSG.GPE.B.7 HSN.QA.1,2,3 HSG.MGA.1

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CTE Standards	CCLS Literacy, ELA Math, Science
		complete a given task			**Science** STD2,7
Weeks 26-28 **Data Frames and Coordinate Systems**	• What are data frames? • How does projection affect map making?	• Identify the data frame within ArcMap • Locate the map projection within the Data Frame properties • Recognize the map unit • Demonstrate use of the measure tool • Identify the projection of a shapefile by exploring the layer properties • Interpret the projection of a shapefile with an unknown projection • Locate and complete the use of the project and define projection tools • Understand the difference between "on-the-fly" projection and defining projection	Exercises: • Exploring Coordinate Systems • Measuring Tools • Projection Corrections Independent Assignments: • Data frames and Coordinate Systems • Quiz	**Career Ready Practices** CRP2,8,11	**Literacy** RST.9-10.3,7
					ELA RSI.9-10.1,3,4,6,7 W.9-10.4 SL.9-10.1,2
				Cluster Standards ST2,3 IT2	**Math** HSN.QA.1
				Pathway Standards ST-ET1,2 ST-SM1,4	**Science** STD2,6
Week 29-32 **Information Fundamentals**	• How is data organized in ArcGIS? • How do we manipulate attribute tables? • How do we apply GIS to a real-world, crime mapping analysis?	• Identify how data is organized and stored in ArcGIS • Retrieve stored information on geographic features • Illustrate the proper approach to creating a new field to store data • Select the appropriate data type to use when adding a field to an attribute table • Perform text and mathematical operations with the field calculator to manipulate data stored in an attribute table	Exercises: • Attribute Tables • Data Manipulation Independent Assignments: • Information Fundamentals • Quiz **Project:** • Crime mapping analysis project in collaboration with Forensic Science class. • Project outputs include group discussion, student-led inquiry, hypothesis	**Career Ready Practices** CRP2,8,11	**Literacy** RST.9-10.3,7
				Cluster Standards ST2,4,6 IT2	**ELA** RSI.9-10.1,3,4,6,7 W.9-10.4,5 SL.9-10.1,2,4,5,6
				Pathway Standards ST-SM2,4	**Math** HSG.MGA.1 HSN.QA.3
					Science STD2,6

Time Frame Unit of Study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	CTE Standards	CCLS Literacy, ELA Math, Science
		• Evaluate the appropriate use of the summarize and statistic functions within the attribute table	development, research, evaluation of findings, technology/oral presentations to authentic audience, reflection.		
Week 33-34 **Selection and Queries** **Selection and Queries (continued)**	• What is Structured Query Language (SQL)?	• Select by attributes • Select by location	Exercises: • Select by Attributes • Select by location Independent Assignments: • Selections and Queries • Quiz	**Career Ready Practices** CRP2,8,11	**Literacy** RST.9-10.3,4,7
				Cluster Standards ST2,4,6	**ELA** RSI.9-10.1,3,4,6,7 W.9-10.4Literacy SL.9-10.1,2
				Pathway Standards ST-ET2	**Math** HSG.MGA.1 HSN.QA.1,2,3
					Science STD2,6
Week 35-40 **Final Project Assignment**	• How does all of this fit together? • How can we apply our knowledge in a specific area of discipline within our school? (i.e., work in conjunction with another course).	• Apply knowledge and skills to a final project • Collaborate with team members to identify a specific project of interest • Implement the project plan and analyze results • Create a final out (map, poster display, presentation, etc.) which assimilates the findings	Final Project • Project plan assessment • Project plan implementation • Final output creation • Collaborative and peer review	**Career Ready Practices** CRP2,4,7,8,11	**Literacy**
				Cluster Standards ST6,ST2	**ELA** RSI.9-10.1,3,4,6,7 W.9-10.4,5 SL.9-10.1,2,4,5,6
				Pathway Standards ST-ET1,2,3,5 ST-SM4	**Math**
					Science STD1,2,6,7 HS-ETS1-2

Return to TOC

Syracuse City School District
Career and Technical Education Program
Course Syllabus
GIS200: Geospatial Intelligence 200

Program Overview

At the completion of this program, students will understand and be able to apply the fundamentals of geospatial technology, geographic information science, remote sensing, global positioning systems (GPS) and spatial data analysis. Students will complete hands-on, real-world projects, develop critical thinking, analysis and problem-solving skills. The program is designed to prepare students for post-secondary education and a wide range of careers using GIS, GPS, spatial analyses, remote sensing, and digital mapping. Students will also have the opportunity to earn integrated science, ELA and college credits.

Course Description

This course builds on students' understanding of the use of GIS technology, Global Positioning Systems, cartography and geospatial data visualization. It also increases students' ability to employ GIS tools and conduct more complex analyses using spatial statistics and data interpretation skills. The goals of this course are to help you to think spatially, analytically, and critically; and improve your problem solving skills.

Course Objectives

1. Describe the fundamental concepts and applications of geographic information science and technology and their use in collecting, analyzing, and displaying geospatial data.
2. Describe and explain the principles of mapping and spatial data modeling.
3. Describe different sources of spatial data and demonstrate how to acquire spatial data, including the fundamental concepts and use of Global Positioning Systems (GPS).
4. Describe the varying methods of spatial analysis and modeling.
5. Discuss the fundamental principles of remote sensing and image analysis.
6. Identify remote sensing platforms and their respective functions.
7. Discuss and demonstrate fundamental cartographic concepts and principles.

Course Objectives cont'd.

8. Discuss and debate the future of geospatial technologies, ethical questions related to the field, and societal implications.
9. Identify resources, plans and processes necessary to answer key questions and provide solutions and/or answers.

Integrated Academics

- Integrated ELA credit - upon completion of the GIS 100, 200 and 300
- Integrated Science credit - upon completion of GIS 100, 200 and 300

Student Equipment and Supplies

School will provide: All necessary lab and classroom equipment

Student will provide: A notebook for taking and saving notes; pen/pencils, USB thumb drive to save/transfer data

Textbook

- N/A –Technical articles and/or worksheets may be provided by teacher for some assignments. Textbooks available for reference/class assignments.

Grading

20%	Class attendance/Participation
10%	Oral Presentation
30%	Assignments
20%	Mid-Term Exam (Practical)
20%	Final Exam (Practical)

- All work is due at the time and day specified when the assignment is given. Submission details for work to be graded will be given at the time the work is assigned.
- Quizzes will be given throughout the semester. The lowest quiz score (one score only) will be dropped when calculating the final course grade.

Bonus points

- One day a month, as specified in advance by teacher, students are encouraged to 'Dress for Success'. Students will be awarded 1 bonus point for every time they arrive to school on that day, dressed in workplace professional clothing (more explanation in class). Students will also be supplied with a polo shirt with our program logo, also to be worn on specific occasions noted throughout the year.

Additional Course Policies

- Students are required to follow all classroom professionalism and safety procedures.
- Please review specific classroom policies.

Course Calendar

Quarter	Units of Study
1	• Getting Started in our Classroom • Introduction to Intermediate GIS • Labels and Annotation • Digitizing • Geocoding
2	• Density Mapping and Analysis • Joining, Relating and Relationship Classes • Geoprocessing with ModelBuilder • Geoprocessing Tools
3	• Geodatabases II • Working with Rasters • Georeferencing • Spatial Adjustment
4	• Digitizing II • Georeferencing II • Classification • Review • Final Project Assignment (To be completed in conjunction with affiliate course – i.e., Forensic Science, Global Studies, Economics, Living Environment, etc.) • Wrap-Up

Syracuse City School District
Career and Technical Education Program
Scope and Sequence
GIS200: Geospatial Technology 200

Time Frame Unit of Study	Key Questions	Key Learning Targets	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
Weeks 1-2 **Getting Started in our Classroom** **Introduction to Intermediate GIS**	• What activities and cooperative strategies build a solid team? • How will we run our classroom? • Review - What is GIS? • What can we use it for? • What kinds of careers are available in the Geospatial Technology field?	• Develop classroom rules and re-establish relationships • Review the GIS in Geographic Information Systems • Identify three types of Geospatial Technologies • Create a definition for GIS • Learn career opportunities in the geospatial field • Identify how GIS can be used to solve real-world problems	• Assignments: • Participation Grades • Team building activity grade • Classwork/Review • Quiz	**Career Ready Practices** CRP2	**Literacy** RST.11-12. 3, 4, 7
					ELA RI.11-12.1,4,6 W.11-12.2,4,7 SL.11-12.1
				Cluster Standards ST2,6 IT2	**Math** HSN.Q.A.1 HSG.CO.A.1
				Pathway Standards ST-ET2,3	**Science** STD 2,6
Weeks 3-5 **Labels and Annotation**	• How are features labeled? • When is labeling appropriate? • How can we save a labeling schema? • How can labels change the highlighted features of the map?	• Learn how to add Dynamic Labels to your map using a data layers attribute information • Learn how to make custom labels using expressions that can combine multiple fields • Learn how to change the appearance of a label using symbol selector • Learn how to convert Dynamic Labels to an Annotation • Understand what	Exercises: • Labels and Annotations • Independent Assignment: Labels and Annotations • Guided Lab Exercise: Data Download File • Guided Lab Exercise: Dynamic Hyperlinking File • Guided Lab Exercise: Field-Based Hyperlinking File • Guided Lab Exercise:	**Career Ready Practices** CRP2,4,8,11	**Literacy** RST.11-12.3,4,7
				Cluster Standards ST2,6 IT2	**ELA** RI.11-12.1,3,4,6, 7 W.11-12.4 SL.11-12.1,2

Time Frame Unit of Study	Key Questions	Key Learning Targets	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
		circumstances would require you to establish an Annotation Feature Class vs Annotations within the Map Document • Learn how to add graphic text labels to the map using the drawing toolbar	Geodatabase Hyperlinking File • Participation Lab Exercise • Classwork/ Participation • Quiz	**Pathway Standards** ST-ET2,3	**Math** HSG.MGA.1,3 **Science** STD 1,2,6 HS-ESS2-8
Weeks 6-10 **Digitizing & Geocoding**	• What is digitizing and why do we need to digitize? • How do we digitize a feature? • What are Land Use and Land Cover classifications and what are they used for? • What is geocoding? • Why is it important? • What do we use it for?	• Understand advanced digitizing concepts • Create new vector data layers and edit them • Digitize and manipulate points, lines, and polygons • Understand how to add aerial imagery • Understand the difference between Land Use and Land Cover and how to use the Land-Based Classification Standards through advanced digitizing • Understand geocoding and its application • List the steps involved in converting a descriptive location to geographic coordinates	• Guided Lab Exercise: Points File • Participation Assignment: Points • Guided Lab Exercise: Lines File • Participation Assignment: Lines • Guided Lab Exercise: Polygons File • Participation Assignment: Polygons • Independent Assignment • Quiz • Guided Lab Exercise: Data Download File • Guided Exercise: Introduction to Geocoding File • Participation Assignment: Introduction to Geocoding • Guided Exercise: Geocoding Using XY Coordinates File • Participation Assignment:	**Career Ready Practices** CRP2,5,8,11	**Literacy** RST.11-12.3,7 **ELA** RI.11-12.1,3,4,6,7 W.11-12.4 SL.11-12.1,2
				Cluster Standards ST2,6 IT 2	**Math** HSN.QA 2,3 HSG.MGA.1
				Pathway Standards ST-ET2,3	**Science** STD 2,6

Time Frame Unit of Study	Key Questions	Key Learning Targets	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
			Geocoding Using XY Coordinates • Guided Exercise: iMAP ServerFile • Participation Assignment: iMAP Server • Independent Assignment • Quiz		
Weeks 11-12 **Density Mapping and Analysis**	• What is Density Mapping? • How can we use it to analyze geographic data?	• Understand when and how to create density maps • Be able to calculate a density value • Apply skills to create a dot density map and/or density surface map	• Guided Lab Exercise: Density Analysis File • Participation Assignment: Density Analysis • Independent Assignment Data Download • Independent Assignment • Quiz	**Career Ready Practices** CRP2,5,8,11	**Literacy** RI.11-12.3 RH.11-12.7 RST.11-12.3
					ELA RI.11-12.1,3,4,6, 7 W.11-12.4 SL.11-12.1,2
				Cluster Standards ST2,6 IT2	**Math** HSN.QA2 HSG.MGA. 1
				Pathway Standards ST-ET2,6 ST-SM2,4	**Science** STD 2,6
Weeks 13-15 **Joining, Relating, and Relationship classes**	• What are the join, relate and relationship classes? • What are these tools used for? • How are they different? • When should they be used?	• Understand how to use join, relate, and relationship tools to simplify and improve data management • Identify which tool is best under which circumstance; match tool to scenario • Create and save a map with joins and relates	• Guided Lab Exercise: Joining, Relating and Relationship Classes File • Participation Assignment: Joining, Relating and Relationship Classes • Independent Assignment: Joins and Relates	**Career Ready Practices** CRP2,4,8,11	**Literacy** RST.11-12.3,7
				Cluster Standards ST2,6 IT2	**ELA** RI.11-12.1,3,4,6, 7 W.11-12.4 SL.11-12.1,2
				Pathway Standards ST-ET2,6 ST-SM2,4	**Math** HSG.MGA .1 HSN.QA 3

Time Frame Unit of Study	Key Questions	Key Learning Targets	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
		• Create a relationship class	• Performance Quiz • Student Choice Mid-Term Project – runs concurrent		**Science** HS-ESS3-3. HS-ESS3-6. STD 2,6
Weeks 16-20 **Geoprocessing with Model Builder** **Geoprocessing Tools**	• What is the Model Builder? • What can it do? • When should we automate workflow? • What are geoprocessing tools? • How are the implemented? • What are the most common geoprocessing tools and what do they do?	• Understand concepts behind automating workflow • Identify steps to create, edit, and manage geoprocessing models • Create a geoprocessing model in Model Builder • Demonstrate the use of basic geoprocessing tools: Intersect, Union, Buffer, Multiple Ring Buffer, Clip, Merge, Append, and Union	• Guided Lab Exercise Data Download File • Guided Lab Exercise: Clip, Buffer, Merge File • Participation Assignment: Clip, Buffer, Merge • Guided Lab Exercise: Union, Select, Intersect, Erase File • Participation Assignment: Union, Select, Intersect, Erase • Performance Quiz • Complete Mid Term Student Choice Assignment	**Career Ready Practices** CRP2,4,5,8,11	**Literacy** RST.11-12.3,7
					ELA RI.11-12.1,3,4,6, 7 W.11-12.4 SL.11-12.1,2
				Cluster Standards ST2,4,6 IT2	**Math** HSG.GPE.B.7 HSN.QA.1,2,3 HSG.MGA.1
				Pathway Standards ST-ET2,6 ST-SM2,4	**Science** HS-ETS1-1. STD 1,2,6,7
Weeks 21-23 **Geodatabases II**	• What is a geodatabase? • How do we use it? • How do we manipulate geodatabases? • How do they work in ArcCatalog?	• Review of Geodatabases and structure • Understand the tools used to establish a new personal geodatabase • Learn the settings for creating a spatial layer that can take advantage of the functions of a geodatabase	• Exercises: • Guided Lab Exercise: Geodatabases II File • Participation Assignment: Geodatabases II - Personal Geodatabase JPEG • Participation Assignment: Geodatabases II - Geodatabase Map • Quiz	**Career Ready Practices** CRP2,4,5,8,11	**Literacy** RST.11-12.3,7
				Cluster Standards ST2,4,6 IT2	**ELA** RI.11-12.1,3,4,6, 7 W.11-12.4 SL.11-12.1,2
				Pathway Standards ST-ET2,3,6 ST-SM2,4	**Math** HSN.QA. 1
					Science STD 2,6

Time Frame Unit of Study	Key Questions	Key Learning Targets	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
Weeks 24-27 **Working with Rasters** **Georeferencing**	• What is a raster image? • What does the resolution mean? • What is georeferencing? • What do we use it for? • How do we apply it to raster imagery?	• Review – raster imagery and types • Review raster resolution • Outline the steps of aligning a raster image to a map coordinate system • Understand process of georeferencing • Create a personal geodatabase • Create a georeferenced image	• Guided lab exercise – Raster Imagery • Classwork • Raster Quiz • Guided Lab Exercise: Geodatabases II File • Participation Assignment: Geodatabases II - Personal Geodatabase JPEG • Independent Assignment: Assignment: Geodatabases II - Geodatabase Map • Georeferencing Quiz	**Career Ready Practices** CRP2,8,11	**Literacy** RST.11-12.3,4,7
				Cluster Standards ST1 IT2	**ELA** RI.11-12.1,3,4,6,7 W.11-12.4 SL.11-12.1,2
				Pathway Standards ST-ET2,3,6 ST-SM2,4	**Math** HSG.MGA.1 HSN.QA.1,2,3
					Science HS-ESS1-4 STD2,6,7
Weeks 28-31 **Spatial Adjustment**	• What is a map projection? • What does transformation mean? • When do we perform spatial adjustments? • Why are they necessary? • What are potential sources of error?	• Review map projection • Review types of projections • Understand coordinate systems and transformations • Apply transformations and transformation methods • Create displacement links and use rubbersheeting techniques	• Guided Lab Exercise: Spatial Adjustments • Participation Assignment: Map Projections and Coordinate Systems • Independent Assignment: Transformation • Performance Quiz	**Career Ready Practices** CRP2,8,11	**Literacy** RST.11-12.3,4,7
				Cluster Standards ST4,6 IT2	**ELA** RI.11-12.1,3,4,6,7 W.11-12.4 SL.11-12.1,2
				Pathway Standards ST-ET2,3,6 ST-SM2,4	**Math** HSN.QA.2,3H SG.MGA.1
					Science HS-ETS1-2 STD2,6
Weeks 32-36 **Digitizing II**	• Now that we understand spatial adjustment and georeferencing, how can digitizing be used	• Review basic digitizing • Understand digitizing in relation to spatial adjustment and georeferencing concepts • Understand digitizing sources of error and	• Guided Lab Exercise: Digitizing II • Guided Lab Exercise: Digitizing II File • Participation Assignment #1 • Participation	**Career Ready Practices** CRP2,8,11	**Literacy** RST.11-12.3,4,7
					ELA RI.11-12.1,3,4,6,7

Time Frame Unit of Study	Key Questions	Key Learning Targets	Assessment Evidence of Learning	Related Standards	CCLS Literacy, Math, Science
	further? • What are the downsides of digitizing?	limitations • Understand how to apply digitizing concepts to specific, real-world examples • Begin Final Quarter Project utilizing techniques from the entire year	Assignment: Assignment #2, • Performance Quiz • Student-choice project will be selected and will run concurrently until the end of the quarter		W.11-12.4 SL.11-12.1,2
				Cluster Standards ST4,6 IT2	**Math** HSN.QA.2,3H SG.MGA.1
				Pathway Standards ST-ET2,3,5 ST-SM2,4	**Science** STD2,6
Weeks 37-40 **Georeferencing II** **Classification** **Review and Wrap-Up**	• How can we use georefencing for a scanned map? • What are classifications in geospatial terms? • What are the different types of classification schemas? • How does the classification and symbology change the viewer perspective of the data? • What did we learn over the course of the year?	• Create a georeferenced image from a scanned paper map • Describe the classification methods available to sort data for visual representation in a map • Understand concepts behind standard classification methods • Identify scenario/usage of each classification method • Learn how to customize and manipulate symbology in a map • Understand when and how to use categories, quantiles and other symbology schemas • Year-end review of all major concepts • Review of final projects	• Guided Lab Exercise: Single Symbol Classification File • Participation Assignment: Hospital Symbology • Guided Lab Exercise: Quantities - Graduated Colors and Symbols File • Participation Assignment: Graduated Colors • Participation Assignment: Graduated Symbols • Guided Lab Exercise: Categories - Unique Values File • Participation Assignment: Unique Value Assignment • Final Project Presentations and Review • Final Exam (includes practical portion)	**Career Ready Practices** CRP2,4,8	**ELA** RI.11-12.1,3,4,6,7 W.11-12.1,2,4,5,7,8 SL.11-2.1,2,4,5,6
				Cluster Standards ST1	**Literacy** RST.11-12.3,4, 7
				Pathway Standards ST-ET2,3,5 ST-SM2,4	**Math** HSN.QA.2,3H SG.MGA.1
					Science HS-ESS3-1 HS-ESS3-4 STD1,2,6,7

Return to TOC

Syracuse City School District
Career and Technical Programs
Course Syllabus
GIS300: Geospatial Technology 300

Geospatial Technology Program Overview

At the completion of this program, students will understand and be able to apply the fundamentals of geospatial technology, geographic information science, remote sensing, global positioning systems (GPS) and spatial data analysis. Students will complete hands-on, real-world projects, develop critical thinking, analysis and problem-solving skills. The program is designed to prepare students for post-secondary education and a wide range of careers using GIS, GPS, spatial analyses, remote sensing, and digital mapping. Students will also have the opportunity to earn integrated science, ELA and college credits.

Course Description

This course will complete the Geospatial Technology sequence. Students will review Geospatial software skills and knowledge. Students will complete an approved project, including all project aspects, from project planning to implementation and presentation of results. Students will also prepare to take the STARS Certification exam at the end of the year. The STARS Exam covers material from all previous Geospatial Technology courses, and prepares students for either an entry-level Geospatial Technician position or college.

Course Objectives

- Describe and perform the fundamental concepts and applications of geographic information science and technology and their use in collecting, analyzing, and displaying geospatial data.
- Explain the principles of mapping and spatial data modeling.
- Perform the varying methods of spatial analysis and modeling.
- Identify and analyze remote sensing platforms and their respective functions.
- Discuss and debate the future of geospatial technologies, ethical questions related to the field, and societal implications.
- Identify resources, plans and processes necessary to answer key questions and provide solutions and/or answers.
- Understand the project planning process, from defining a problem statement through project implementation and results reporting.
- Pass the STARS Project and Certification Exam.
- Complete a community-based internship experience.

Integrated Academics

Integrated Science Credit – Upon successful completion of GIS 100 and GIS 200
Integrated ELA Credit – Upon completion of the GIS 100, GIS 200, and GIS 300

Student Equipment and Supplies

- School will provide: All necessary lab and classroom equipment.
- Student will provide: A notebook for taking and saving notes; pen/pencils.
  USB thumb drive to save/transfer data.

Textbook

N/A –Technical articles and/or worksheets may be provided by teacher for some assignments. Textbooks available for reference/class assignments.

Grading

20% Class attendance/ Participation
10% Oral Presentation
30% Assignments
20% Mid-Term Exam (Practical)
20% Final Exam (Practical)

Additional Course Policies

All work is due at the time and day specified when the assignment is given. Submission details for work to be graded will be given at the time the work is assigned.

Quizzes will be given throughout the semester. The lowest quiz score (one score only) will be dropped when calculating the final course grade.

Students are required to follow all classroom professionalism and safety procedures. Please review specific classroom policies.

Course Calendar

Quarter	Units of Study
1	• Getting Started in our Classroom • Technology Skills Review • Geospatial Technology for Problem-Solving and Decision-Making • Overview of the STARS Certification Program • Project Management Overview & Planning
2	• Project Implementation • Project Results and Reporting • Review for STARS Certification Exam
3	• Review for STARS Certification Exam: o Spatial Data Analysis & Tools; Spatial Reference; Symbology; Geocoding & Digitizing; Ethical Mapping
4	• STARS Certification Exam • Project Review • Community-based Internships

Syracuse City School District
Scope and Sequence
GIT300: Geospatial Technology 300

Time Frame Unit of study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, ELA, Math, Science
Weeks 1-2 **Geospatial Technology Skills Review**	• What are the key vocabulary terms and concepts used in geospatial technology? • What skillsets do we use in ArcGIS to perform spatial analysis? • Why is geospatial technology important and how is it used in our everyday lives? • How do we apply geospatial technology to solve problems and inform decision-making processes?	• Understand a variety of disciplines and career pathways where geospatial technology skills can be applied • Describe how geospatial technology is used to: analyze data; perform spatial analyses; visualize information; and answer questions • Define key geospatial terms and concepts, and understand their relationships • Perform basic and some advanced geospatial analyses using ESRI ArcGIS software	• Current events article summary from ArcNews, ArcUser or similar trade journal • Vocabulary exam • Key concept exam • Computer Application Performance Task: quiz for key ArcMap functions/tools	**Career Ready Practice** CRP1,2,4,7,11	**Literacy** RST.11-12.1 WHST.11-12.2,4
					ELA RI.11-12.1,4, W.11-12.24, 7 SL.11-12. 1,4
				Cluster Standards ST2,5, IT11	**Math**
				Pathway Standards ST-SM3 ST-ET2	**Science** STD1,2,7
Week 3 **Overview of STARS Geospatial Certification and Project Management Capstone Implementation**	• What is the STARS Geospatial Certification Program and why is it beneficial? • What is the process for becoming STARS certified? • What is the Geospatial Project Management Model? • What is URISA and the code of ethics for GIS professionals?	• Understand the STARS certification process and explain the prerequisites • Understand the procedure and schedule for filing an application • Discuss the benefits of STARS certification • Understand the assessment and points system for evaluation • Identify and describe the files and reports are required for submission	• Signature of acceptance to acknowledge certification requirements • Quiz on STARS certification procedures	**Career Ready Practice** CRP2,10,11	**Literacy** RST.11-12.2
				Cluster Standards ST4	**ELA (11/12)** RI.11-12.1, 4, SL.11-12.1
				Pathway Standards ST-SM3	**Math**
					Science STD 2,7

Time Frame Unit of study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, ELA, Math, Science
		• Examine the GIS professional code of ethics			
Weeks 4-9 **Development of a Successful Project Plan**	• What are the different components of a complete project plan? • How they are related to each other, and why is each one critical to the overall project?	• Understand what a good project plan looks like (objective, problem statement • Apply common project management terminology • Identify a problem and explain the process to answer or address it • Outline the functional requirements of a project plan • Examine the importance of project planning • Define the objective • Define the problem statement? • Design a feasibility study project • Identify stakeholders and examine their functions	• Project planning vocabulary quiz • Pre-Problem Brainstorming worksheet • Problem identification worksheet • Stakeholder worksheet • Project objective worksheet • Project title worksheet • Project feasibility worksheets • Functional requirements worksheet • Completed project plan including: title; problem statement; project objective; stakeholder review; area of interest; projected feasibility; functional requirements; summary and schedule	**Career Ready Practice** CRP1,2,4,7,9 **Cluster Standards** ST1,6 **Pathway Standards** ST-SM2 ST-ET1,2	**Literacy** WHST.11-12.4,5 **ELA** RI.11-12.1, 3, 4, 7 W.11-12.2,4-7 SL.11-12.1,2,4 **Math** HSN-Q.A.1 **Science** STD 1,2 HS-ETSI-2
Weeks 10-15 **Project Implementation**	• How do we start a project? • What are the steps in implementing a successful project? • How do we acquire data and resources for a project	• Be able to acquire and coordinate project resources • Identify, research, locate and acquire data and shapefile • Format, manipulate, and/or reproject	• Project implementation – metadata exercise • Layout assessment worksheet • Metadata catalog • Map layouts • Project deliverables/ visualizations	**Career Ready Practice** CRP1,4,5,6,7,8,11 **Cluster Standards** ST-2,6	**Literacy** WHST.11-12.4,7 **ELA** RI.11-12.1,4,7 W.11-12.4,5,8 SL.11-12. 2

Time Frame Unit of study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, ELA, Math, Science
	• What is metadata and how do we document it? • Which data processing and spatial analysis tools will be used for the project? • How should the data be presented in a layout? • How can symbology be utilized to represent data results? • What deliverables are necessary to complete the project?	datasets • Validate and catalog metadata • Collect data manually, as necessary • Process and analyze data • Create map layouts, visualizations and other deliverables that inform the project purpose and results	• Self-assessment checklist • Schedule assessment	**Pathway Standards** ST-SM1,2, ST-ET2,4,5	**Math** HSN-Q.A.1,2,3 **Science** STD 1,2,6,7 HS-ESS3-4 HS-ETSI-2
Weeks 16-21 **Project Presentation of Results**	• How do we document spatial analysis steps, results and conclusions?	• Develop a written report covering the entire project management process, including map layouts, figures and conclusions • Develop an oral presentation explaining results and map layouts • Format a professional presentation, inclusive of all required components, i.e., title page, table of contents, planning process steps, implementation process, results and appendices	• Completed project written report including all elements • Completed oral presentation including all elements • Submission and grading conducted by nationally-recognized STARS certification team	**Career Ready Practice** CRP2,4,5,6,9,11 **Cluster Standards** ST2,4,6 **Pathway Standards** ST-SM1,4 ST-ET5,6	**Literacy** WHST.11-12.4,9 **ELA** W.11-12.2,4-9 SL.11-12.4-6 **Math** HSN-Q.A.1 **Science** STD 1,2,6,7 HS-ETSI-4
Weeks 22-23 **Preparing for STARS Exam Review:**	• What are the basic data formats in geospatial technology and what do they	• Distinguish the differences between raster and vector data • Apply knowledgeable in	• ArcMap software student exercise • ArcCatalog student exercise	**Career Ready Practice** CRP2,4,8,11	**Literacy** WHST.11-12.6 **ELA** RI.11-12.4,7

Time Frame Unit of study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, ELA, Math, Science
Understanding Geospatial Data and ArcGIS Software	represent? • What are the primary geospatial software techniques and how are they applied? • How do we use metadata and why is it important?	the use of ArcCatalog software • Manage geospatial data • Be familiar with meta-data structures and formats • Manage a data inventory	• Quiz: spatial data vocabulary; software tools functions; metadata • Performance Task: Navigating ArcMap and ArcCatalog software	**Cluster Standards** ST-2,4	SL.11-12.1-2
				Pathway Standards ST-SM2 ST-ET5	**Math** MP.2,4
					Science STD 2,6
Weeks 24-25 **Preparing for STARS Exam Review: GIS Tools and Processes Review**	• When should we process and/or manipulate geospatial data and what skills and knowledge will we need to complete the task? • How is geocoding important to spatial data analysis?	• Use the processing tools Joins/Relates, Buffer, Clip, Dissolve and Intersect in ArcMap software to create/edit new datasets • Geocode address information and create/ edit geospatial data layers	• Complete a geocoding performance task exercise • Complete a heads-up digitizing exercise • Performance task quiz: Geoprocessing Tools	**Career Ready Practice** CRP2,4,8,11	**Literacy** WHST.11-12.6
					ELA RI.11-12.4,7 SL.11-12.1-2
				Pathway Standards ST-SM2 ST-ET5	**Math** HSN-Q.A.3
					Science STD 2,6
Weeks 26-27 **Preparing for STARS Exam Review: Georeferencing, Map Projections and Reprojecting**	• What is the importance of having a spatial reference for data layers, and how do we create a reference for layers without an existing one? • Why is a correct map projection important?	• Create a spatial reference for an image file in ArcMap software using control points • Understand the residual error and total error by using the root mean square method • Discuss the most commonly used map projections and the needs they address	• Performance task quiz: Georeference an aerial photograph in ArcMap • Quiz: Map projections and their uses	**Career Ready Practice** CRP2,4,8,11	**Literacy** WHST.11-12.6
					ELA RI.11-12.4,7 SL.11-12.1-2
				Cluster Standards ST2,4	**Math** HSN-Q.A.3
				Pathway Standards ST-SM2 ST-ET5	**Science** STD 2,6,7
Weeks 28-30	• How can changing symbology emphasize	• Read and understand 'How to Lie with Maps'	• Essay: How to Lie with Maps	**Career Ready Practice**	**Literacy** WHST.11-12.6

Time Frame Unit of study	Key Questions	Key Learning Targets (Students will know and be able to)	Assessment Evidence of Learning	Related Standards	CCLS Literacy, ELA, Math, Science
Preparing for STARS Exam Review: Symbology and Classification	different results of an analysis? • How can different symbology influence an audience's interpretation of the data? • What are the responsibilities of a good cartographer?	• Select the appropriate symbology methods to apply • Understand ethical mapping	• Quiz: Symbology map types and uses	CRP2,4,8,11	**ELA** RI.11-12.3,4,7 W.11-12.1,2,4,5 SL.11-12.1-2
				Cluster Standards ST2,4	**Math** HSN-Q.A.3
				Pathway Standards ST-SM-2 ST-ET-5	**Science** STD 2,6,7
Weeks 31-40 **STARS Certification Exam** **Community Service/ Work Study/ Internship Project**	• What does it take to be successful in college and the workplace? • How do I link academic knowledge to everyday practice? • How do I use my internship to develop awareness of my strengths, values and interests in order to prepare for success in a future direction?	Students will Demonstrate: • Communication skills • Interpersonal skills • Problem solving skills • Team work skills • Analytical skills • Strong work ethic • Organizational skills • Leadership skills • Initiative	• STARS Final Certification Exam • Community Project/Internship and Work Study Completion • *Work study/internship may run concurrently with capstone project, depending on selected site and activities	**Career Ready Practice** CRP1,2,4,5,6,7,8,9, 10,11,12	**Literacy** RST.11-12.5 WHST.11-12.4 RST.11-12.10
					ELA RI.11-12.1,3,4,7 W.11-12.2,4,5 SL.11-12.1,4,5,6
				Cluster Standards ST-1, ST-2, ST-3, ST-6	**Math** HSN-Q.A.1 MP.2,4
				Pathway Standards ST-SM-1,2,4, ST-ET-1,2,3,5,6	**Science** STD 1,2,6,7 HS-ETSI-4

Return to TOC

B. Teacher Certification

> *The self-study team reviews the teacher certification and training of the school or BOCES' instructional, paraprofessional, and support staff who deliver services within the CTE program seeking approval. New York State teacher certification review should include both CTE teachers and teachers of academic content within the proposed program.*

Process

- Reviewers confirm that all CTE teachers hold appropriate New York State teacher certification for the program in which they will teach.
- Reviewers confirm that all teachers of academic content hold appropriate New York State teacher certification for the program in which they will teach.
- Reviewers confirm the appropriate NCLB highly-qualified status for the CTE teachers in programs offering academic credit.
- Reviewers confirm that staff delivering instruction in programs where certification, licensure, or registration by an external entity have acquired the necessary credentials.
- Reviewers confirm that professional development opportunities exist within the school district or BOCES for instructional, paraprofessional, and support staff to acquire and improve skills and knowledge related to instructional enhancement of the CTE program.

Documentation

Recommendations from the review of teacher certification should be included in the self-study report and reviewed by the external committee. A list of all teachers for the program and the New York State teacher certification(s) held by each must be attached to the Application for Career and Technical Education Program Approval.

Resources

New York State Office of Teaching Initiatives
http://www.highered.nysed.gov/tcert/certificate/certprocess.htm

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

Account Information

Person Information

Name	JESSICA TEIFKE	**SSN**	
Date of Birth	[redacted]	**Teacher Id**	
Gender	Female	**Address**	[redacted]

Certificates

Credential	Status	Application Type	Issued / Effective Date	Original Exp. Date	Time Extended Exp. Date	Control Number
Geospatial Intelligence / Geographic Information Systems 7-12, Transitional A Certificate	Issued	CERTIFICATE	08/29/2017	08/31/2020		1167475171
Computer Technology 7-12, Transitional A Certificate	Withdrawn	CERTIFICATE				

Applications are valid for three years or two evaluations, whichever comes first.

Applications

Credential	Cert Path	Application Type	Status	Application Date	Evaluation History	Application Paid?
No Data Found						

C. Technical Assessments Based on Industry Standards

> *The self-study team reviews the selection of a technical assessment for the program seeking approval. The selected technical assessment must be nationally-recognized and based on industry standards. It must be available to students enrolled in the approved program and must consist of three parts: written, student demonstration, and student project. Successful completion of the technical assessment is not a requirement for high school graduation, but is required for a student to earn a technical endorsement on the high school diploma*
>
> *The New York State Education Department does not approve, endorse, or certify any technical assessment.*

Process

- The school district or BOCES selects an appropriate industry standard technical assessment to measure student proficiency in the technical field for the program. The school district or BOCES may select a New York State licensing examination as the technical assessment.
- The school district or BOCES determines the scheduling and administration of technical assessments. It is not required that the technical assessment be administered at the conclusion of the program. Parts may be administered throughout a student's learning experience.
- The school district or BOCES determines the number of times a student may take a particular technical assessment.
- The school district or BOCES must comply with existing laws and regulations related to administration of technical assessments to students with disabling conditions and provide appropriate testing modifications. Restrictions on student eligibility for testing are the responsibility of the test producer.
- In the absence of an appropriate nationally-recognized industry standard based assessment, a consortium of local, regional, state, business and industry representatives may be formed to produce such an instrument.
    - Technical assessments must meet generally recognized psychometric criteria. Therefore, the consortium approach may be expensive because of the many steps required to insure assessment validity, reliability, and security.
    - An existing CTE advisory committee or craft committee is not a technical assessment consortium. The school district or BOCES must ensure that the assessment consortium adequately represents current business and industry standards for the specific career area for the program.
- Where an appropriate technical assessment exists, but consists of only one or two parts, a consortium must be formed to develop the missing part(s).
- The school district or BOCES must develop a system to collect student-level and program-level data on performance on the technical assessment.

Documentation

Recommendations on the technical assessment selection should be included in the self-study report and reviewed by the external committee.

Resources

New York State graduation requirements: http://www.emsc.nysed.gov/part100/pages/1005.html

Information on the Technical Endorsement: http://www.emsc.nysed.gov/cte/ctepolicy/endorsement.html

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

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All About Geospatial Certification

Certification Main

Certifications are an important part of any technology. They let prospective employers know your students were motivated to begin and successfully complete a process to show their value and strengths. The STARS and SPACE Certifications provide this opportunity for the geospatial industry. Our focus on process as well as skills give your students the foundation for a great career and put students on a path to future certifications to continually redefine themselves.

We believe education is a journey from early education to retirement, so we strive to put students on a path with a strong foundation and knowledge of best practices. Start here and Start now. A career that can reward your students for a lifetime begins with us!

Why You Need Certification...

Using our certifications gives your students a means to show potential employers a measured, standardized set of skills. This is a great asset for your program to attract potential students by providing a nationally competitive standard. Organizations can use this as a starting point or as a compliment to existing programs of study/certificate programs.

Certification vs. Certificate

Measures Application of Experience Via Assessment	Recognizes Completion of an Education Process
Awarded by Independent Professional Organization	Awarded by Educational Institution
Competencies Defined by Needs Industry-Wide	Based on Content Defined Locally/Organizationally
Demonstrates Applied Set of Skills and Knowledge	Demonstrates Completion of Course of Study

Behind The Certification

Certifications are created with industry needs in mind. This leads to two crucial components for certification success: Standards Mapped to Industry Needs and Industry Backing. The STARS and SPACE certifications call upon a variety of sources to make sure they have the most complete requirements.

Certification standards play a crucial role in the SPACE and STARS Certification. STARS was developed in 2003 with standards in mind and mapped to the Geospatial Technology Competency Model, the base for the DOL commissioned Geospatial Technology Apprenticeship model. As standards were developed STARS was a source for the new Geospatial Technology Competency Model released in 2010 and meets the core geospatial skills as well as addressing many of the non-geospatial skills. The new SPACE Certification follows these same traditions.

On the industry side, STARS is sponsored by the Mississippi Enterprise for Technology (MsET), a Center of Excellence in Geospatial Technology at NASA's John C. Stennis Space Center, www.mset.org. MsET member companies consist of some of the best and brightest innovators in the geospatial technology field.

Follow Us On: | Share With Others:

Digital Quest

Creating Teacher Friendly Curriculum for Rapid Prototyping and the Geospatial Industry

All About Geospatial Certification

The SPACE Certification

The SPACE Certification is based on assessing an individual's user-level geospatial foundation. Geospatial technology is spread throughout many industries and high-growth job categories - becoming an essential skillset in many industries. The SPACE certification is a means to qualify student proficiency in geospatial skills and application of those skills to a particular career path. This certification bridges the gap between students looking towards a bright future in a particular career pathway and established professionals who need to add geospatial skills.

National, Industry Backed

The SPACE certifications are independently backed by the Enterprise for Geospatial Solutions (EIGS), Mississippi Enterprise for Technology (MsET), and the Magnolia Business Alliance (MBA). These organizations include some of the most innovative and influential companies in the geospatial industry.

Scalable And Modular Solutions

We believe in providing total solutions that allow room for expansion and are easily adapted to a school's unique needs. The curriculum mapped to this certification fits multiple career pathways. If your school is looking for a new technology that is cross curricular and relevant to much of the student body, the SPACE certification is available for up to eight different career pathways. If your school needs to enhance or expand an existing career pathway, SPACE can provide a relevant, unique, and measurable alternative.

Curriculum leading to the SPACE certification is also the same as the first 180 hrs of the STARS Certification. Students can gain valuable experience on the way to SPACE at which point schools have the option to offer an additional 180 hrs to reach STARS.

Details By Career Focus:

- Ag, Food, & Natural Resources
- Architecture, Engineering, & Construction (A/E/C)
- Green & Sustainability
- Health Science
- Homeland Security
- Law & Public Safety
- Marketing
- STEM
- Transportation & Logistics

Ag, Food, & Natural Resources

Time to Certification:
180 Hrs

Pre-Requisites:
None

Certifying Body:
Enterprise for Innovative Geospatial Solutions (EIGS)

Additional Recognizing Organizations
Mississippi Enterprise for Technology (MsET); Magnolia Business Alliance (MBA)

Classroom Support Materials:
Each of our course are delivered as turn-

Requirements for Certification:
Two Components

1. Practical evaluation of map layouts created throughout Courseware.

2. Examination Assessment consisting of questions regarding career path and geospatial capabilities.

Courseware Titles*:
aGIS in Ag, Food, & Natural Resources
Introduction to GIS/RS Concepts
Intro to GIS Tools & Processes
Advanced Tools in GIS
Extended Tools in Surface Analysis

key solution with Lesson Plans, PowerPoint, Presentation Notes, Assessments, and Technical Support. For more information on what teachers can expect Click Here

Geospatial Core & Career Specific Topics:
Basic to intermediate skills and processes essential to Geographic Information Systems, Remote Sensing, and GPS technologies. Process and Project Management essential to geospatial technologies and the larger information technology industry. Specific activities related to Ag, Food, & Natural Resources: Food, Products, & Processing Systems (Analyze poultry supply chain); Plant Systems (Monitoring Chemical usage on vegetation); Environmental Service Systems (Analyze natural barrier effectiveness in waste management); Animal Systems (Manage Virtual Fencing Technology; Natural Resource Systems (Identifying Suitable Wetland locations); Agribusiness (Mapping area businesses); Biotechnology (Crop management in multicrop field); Power, Structure, & Technical Systems (Assessing benefits of precision agriculture)

*For detailed information, table of contents, lesson samples, and system requirements for each title Click Here

For more information on aGIS, SPACE, or STARS Curriculum view the overviews of each series from the Geospatial Curriculum Serie Section on the main page. Click Here

All About Geospatial Certification

The STARS Certification

STARS is both the name of an industry standard Geospatial Certification and also the name of a series of courses that prepare the student to take the GIS certification test. STARS is the first and only competency based, industry recognized (www.MSET.org), entry-level, geospatial certification! The certification program establishes minimum standards for entering the geospatial technology field and affords professional recognition for geospatial information personnel.

How Do Your Students Become STARS Certified?

The STARS Geospatial Certification process consists of two parts. The first part is a project that is designed to demonstrate project mangement and utilize geospatial skills required for employment. The second part is a written exam requiring the student to demonstrate that they have the necessary depth of knowledge to be employed in the geospatial industry.

Pathway To STARS

The courses delivered in the STARS curriculum series are designed to both teach and assess a student's level of competence in geospatial skills and project management. This 4 semester series of courses provides students with the skills to be an entry level geospatial technician. The introductory series covers topics from basic concepts in Project Management to GIS, GPS, and Remote Sensing. It is in this course where students learn about history of mapping, projections, coordinate systems, scale, multispectral imagery, and various other concepts that are essential to being effective in GIS/RS. The advanced series (Series Two and Three) will discuss the uses and applications of ArcGIS software and its extensions including: Spatial Analyst, 3D Analyst, Network Analyst, and ERDAS's Image Analysis extension for ArcGIS.

The fourth series is a capstone project. This project allows students to show application of geospatial skills and concepts learned in previous coursework and experiences. Upon completion this project is submitted to the STARS Certification Committee for review.

STARS Pathways In Detail

- STARS via SPACE
- STARS without SPACE
- Extending STARS

STARS Cert Continuing From SPACE

Time to Certification:
360 Hrs

Pre-Requisites:
None

Certifying Body:
Mississippi Enterprise for Technology (MsET)

Additional Recognizing Organizations
Enterprise for Innovative Geospatial Solutions (EIGS); Magnolia Business Alliance (MBA)

Classroom Support Materials:
Each of our course are delivered as turn-

Courseware Titles*:
Course Titles included in at least one SPACE Pathway

Extended Tools in Remote Sensing
Extended Tools in 3D Visualization
Extended Tools in Routing Analysis
Geospatial Applications Project (CAPSTONE)

Geospatial Core & Career Specific Topics:
In addition to completed SPACE Topics:

Remote Sensing (Image Processing; Orthorectification; Feature Extraction;

key solution with Lesson Plans, PowerPoint, Presentation Notes, Assessments, and Technical Support. For more information on what teachers can expect Click Here

Requirements for Certification:
Two Components

1. Successful Completion of Capstone Project.

2. Examination Assessment consisting of questions regarding career path and geospatial capabilities.

Image Classification; Vegetative Analysis; ImageEnhancement).

3D Analysis (Displaying 3D Data; Downloading and Processing 3D Data; Converting 2D Features to 3D; Creating a landscape; Aspect; Line of Sight; ArcGlobe; Animation).

Routing Analysis(Data Preparation; Creating a Network Dataset; Finding Best Route; Determining Closest Facility; Service Area Analysis; Multimodal Networks).

Project Management Skills integrated throughout course(Project Planning; Problem Identification; Stakeholder Analysis; Functional Requirements; Feasibility Analysis; Project Design; Project Implementation; Project Presentation; Written Reporting; Oral Reporting)

Capstone Detail:
The STARS Applications of Geospatial Project Management course is a road map for the capstone application component of the STARS Certification. This books leads potential STARS certified technicians through the Project Management Model to produce a complete geospatial project from planning to implementation to presentation. Completion of this project calls upon all of a geospatial student's project management and geospatial skills. Time to completion for the capstone is ~90hrs.

Approved project descriptions offer students three options for project focus. First, a fire study description details a requirements to produce a fire study plan using geospatial technologies to determine harzadous materials and escape plans for a specified location. A tree study description allows students to assess the uses and value of trees in an area and present those findings using GIS. The third option, a site suitability description, details methods students can use to locate the best location for a garden in a specified area.

*For detailed information, table of contents, lesson samples, and system requirements for each title Click Here

For more information on aGIS, SPACE, or STARS Curriculum view the overviews of each series from the Geospatial Curriculum Serie Section on the main page. Click Here

All About Geospatial Certification

Beyond SPACE And STARS

Foundations are set and you are now prepared to enter the workforce or pursue advanced academic paths. With any career students will be most valuable if they continue to refine their skills and redefine themselves. Technology will develop throughout your student's professional career, and once established we want them to take time to make sure they stay that way. Further industry, manufacturer, and academic certifications are a great way for professionals to show they have kept up with the latest industry trends and advancements.

Beyond STARS and SPACE students will find multiple tracts for advancement through professional and manufacturer certifications. The well-defined geospatial worker will consider all of these options. Each one has a distinct purpose and utilizing all of these will provide you with opportunities throughout your career.

Certifications Beyond SPACE and STARS

Sponsor		
ESRI Environmental Systems Research Institute	**GISCI** GIS Certification Institute	**ASPRS** American Society for Photogrammetry and Remote Sensing
Certifications		
-ArcGIS Desktop Associate -ArcGIS Desktop Professional -ArcGIS Desktop Developer Associate -ArcGIS Desktop Developer Professional -Web Application Developer Associate -Web Application Developer Professional -Mobile Developer Associate -Mobile Developer Professional -Enterprise Geodata Management Associate -Enterprise Geodata Management Professional -Enterprise System Design Associate -Enterprise Administration Associate -Enterprise System Design Professional	-GISP (GIS Professional) "A GISP is a certified geographic information systems (GIS) professional who has met the minimum standards for ethical conduct and professional practice as established by the GIS Certification Institute (GISCI)"	-Certified Photogrammetrist -Certified Mapping Scientist-Remote Sensing -Certified Mapping Scientist-GIS/LIS -Certified Photogrammetric Technologist -Certified Remote Sensing Technologist -Certified GIS/LIS Technologist
Website/More Info		
ESRI Certifications Website http://training.esri.com/certification/tracks.cfm	GISCI Website http://www.gisci.org/	ASPRS Certification Website http://www.asprs.org/membership/certification/index.html

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SCSD CTE Student Portfolio

Definition: Student portfolios are a collection of personal documents, which showcase an individual's learning experiences, goals and achievements. Student portfolios are created and controlled by the student, facilitated by the instructor, and evaluated by outside entities.

Purpose: Students should be able to leave a program with as many tools in their toolbox as possible. Student portfolios are a way to assist students in marketing themselves in future interviews, by using the portfolio to illustrate his or her skills and/or talents.

SCSD CTE Student Portfolio Requirements

☐	**Table of Contents:**	This should list each section and piece of the portfolio in the order it appears
☐	**Cover letter**	A cover letter introducing the student to a potential employer about a specific job in his or her chosen pathway. Should focus on why the student is the best candidate for the job. It should compliment the resume, not repeat it.
☐	**Resume**	Should be professionally formatted. Usually a one-page document listing the student's name, personal information (address, phone, and email), an objective, work history or extracurricular/community involvement, education, certifications/credentials, personal skills/interests, and references.
☐	**Letters of Recommendation**	Students must include at least two (2) reference letters, provided by people outside the school who are familiar with his or her work or character. The reference letters can be employment-related, personal, or they can attest to the character of the student.
☐	**Certifications/Credentials**	Students should include copies of any credentials and/or certifications they have earned as a result of their program.
☐	**Transcript**	Student provides a copy of his or her full academic transcript.
☐	**Employability Profile**	Per NYSED: The work skills employability profile is intended to document student attainment of technical knowledge and work-related skills. Documents to validate skills reported on the profile could include, but are not limited to, an employer/teacher review of student work based on learning standards and expectations in the workplace, performance evaluations and observations. Students must have at least one employability profile completed within one year prior to school exit. If a student is involved in a number of work-based learning experiences and/or is employed part time, he/she may also have additional employability profiles as completed by others knowledgeable about his or her skills (e.g.,

	employer and/or job coach).
☐ **College Research**	A written research assignment focusing on three colleges offering programs in the student's chosen career pathway.
☐ **Career Plan**	Per NYSED: "Career Plans are an important mechanism to add relevance and meaning to learning experiences across subject areas. The career development model used to create the Career Plan aligns with the CDOS standards." A Career Plan document can be found here: http://www.p12.nysed.gov/cte/careerplan/docs/SecondaryCommencLvl.pdf
☐ **Student Awards**	This section is completely open ended. Students should use this section to illustrate any awards, projects, exemplars, service learning, or scholarships, they participated or earned during their high school years. They can show evidence through pictures, project documentation, news articles, program agendas, meeting minutes, videos, etc.
☐ **Work Samples**	Examples highlighting ***only the student's best work***, demonstrating the skills and competencies he or she has mastered. These should be presented professionally and be clearly captioned. ***Should not be thought as a scrapbook.*** Potential employers are only interested in the very best examples.

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D. Postsecondary Articulation

> *The self-study team reviews the postsecondary articulation agreement for the program seeking approval. Postsecondary articulation agreements help students prepare for the transition from high school to advanced study in a particular career area. Articulation agreements provide direct benefits to students such as dual credits, college credits, advanced standing, or reduced tuition at a postsecondary institution. Articulation agreements may include several school districts and/or BOCES and multiple postsecondary institutions. The school district or BOCES may enter into multiple articulation agreements for a program seeking approval.*

Process

- Reviewers confirm that the postsecondary articulation agreement is designed to prepare students for the transition from high school study to postsecondary study in the career area of the program seeking approval.
- Reviewers confirm that a postsecondary articulation agreement has been obtained that offers direct benefits to students in the program seeking approval.
- Reviewers confirm that the postsecondary articulation agreement includes the
    - prerequisite skills, knowledge, or coursework required of students to participate in the agreement
    - roles and responsibilities of each institution
    - duration of the agreement
    - endorsement by officials of each institution
- Signed articulation agreements must be on file within the school district or BOCES.

Documentation

Documentation of the postsecondary articulation agreement is maintained by the school district or BOCES and updated whenever modifications are made. Recommendations on the technical assessment selection should be included in the self-study report and reviewed by the external committee. A copy of the signed postsecondary articulation agreement must be attached to the Application for Career and Technical Education Program Approval.

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

MOHAWK VALLEY COMMUNITY COLLEGE
CONCURRENT ENROLLMENT CONTRACT
(September 2017- June 2022)

Mohawk Valley Community College and Syracuse City School District mutually agree to a partnership that will allow selected students at the high school to take the following courses for MVCC credit on the high school campus:

CT 265, Introduction to Geographic Information Systems (Cr3)
UA 101, Introduction to Unmanned Aerial Systems (Cr3)

General timeline: High school principals wishing to initiate new offerings or continue present offerings must provide a written request for participation to the Director of Dual Credit Programs by May 1st of each year.

To enable this collaboration, each of the institutions agrees to the conditions outlined below.

Mohawk Valley Community College agrees to:

1. Provide registration for selected students in one or more of the courses listed above.
2. Provide registration instructions, and related materials to the high school to facilitate student registration.
3. Provide opportunities for dual enrollment instructors to learn about curricular requirements, course evaluation instruments, textbooks, hardware, software, and other instructional materials, and provide ongoing support regarding development of syllabi, procedures, curricular issues, and pedagogy.
4. Provide opportunities for collegial interaction among dual enrollment instructors and on-campus faculty to allow for sharing of best practices.
5. Review courses recommended for offering at the high school by May of each year and respond with written confirmation, requested modifications or rejection.
6. Ensure review of credentials of high school dual enrollment instructor candidates, and respond within 30 days with approval, rejection or alternative recommendation.

PLEASE NOTE THAT MVCC RESERVES THE RIGHT TO RECIND APPROVAL OF A COURSE OFFERING TO THE HIGH SCHOOL IF AN INSTRUCTOR'S CREDENTIALS ARE NOT APPROVED BY THE MVCC ASSOCIATE DEAN.

The high school agrees to:

1. Give MVCC the option of offering a course for college credit before extending such an offer to another college or university.
2. Maintain the integrity of the course by following the curriculum prescribed by MVCC and ensuring student compliance with learning outcomes.
3. Provide opportunities for student registration in MVCC courses and administrative assistance with registration.
4. Comply with pre-requisite and placement testing pre-conditions for registration.
5. Submit credentials of dual enrollment instructor candidates for review by the appropriate MVCC academic Associate Dean, and ascertain approval *before* a course is taught by that instructor.
6. Adhere to College policies and regulations, with special emphasis on the policy on academic integrity.
7. Provide two copies of the instructor syllabus prior to the beginning of classes for a given semester.
8. Provide every enrolled student a copy of the appropriate syllabus.
9. Ensure that each instructor maintains a folder containing sample tests, quizzes, assignments, and other graded exercises or papers.
10. Encourage instructor participation with mentoring and other professional development activities provided by MVCC.
11. Provide textbooks, hardware, software and other necessary instructional materials, as well as facilities for MVCC classes.

Both parties agree that:

1. MVCC's contribution for tuition and provision of faculty mentoring and administrative support and the high schools' contribution of facility use and instructor services rendered constitute equal mutual consideration for this agreement.
2. The provisions of the respective collective bargaining agreements shall be the responsibility of each party and shall be satisfied.

Superintendent of Schools	MVCC Director of Dual Credit, Shane McGovern
2/25/17	2/14/17
Date	Date

Cc: Dr. Randall Van Wagoner, President MVCC
Dr. Maryrose Eannace, Vice President for Learning and Academic Affairs

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E. Work-based Learning

> *Work-based learning (WBL) is the "umbrella" term used to identify activities which collaboratively engage employers and schools in providing structured learning experiences for students. These experiences focus on assisting students to develop broad, transferable skills for postsecondary education and the workplace. A quality WBL experience can make school-based learning more relevant by providing students with the opportunity to apply knowledge and skills learned in the classroom to real world situations.*
>
> *Time requirements that students in an approved program may devote to work-based learning experiences are set by administrators of the approved program. This time should be an outcome of the self-study report and external review phases of the approval process. Work-based learning experiences must be sufficient in length and rigor to contribute to student achievement of the State learning standards as well as specific technical competencies.*

Process

- The school district/BOCES and the employer cooperatively plan all work experiences.
- The school district/BOCES set up a formal procedure for the supervision/coordination of all work-based learning experiences and must ensure that work-based learning coordinators are appropriately certified.
- The school district/BOCES provide work-based learning experiences for students with disabilities
- The school district/BOCES and employer must ensure compliance with federal and state labor laws, and the State Department of Labor regulations and guidelines.
- The school district/BOCES must explore and develop work-based learning experiences in settings that are relevant to the program.
- The school district/BOCES must comply with Commissioner's Regulations and Department policy where credit towards graduation is being awarded.

Documentation

Recommendations for work-based learning should be included in the self-study report and reviewed by the external committee.

Resources

New York State Education Department Work Experience Manual **http://www.emsc.nysed.gov/cte/wbl/**

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

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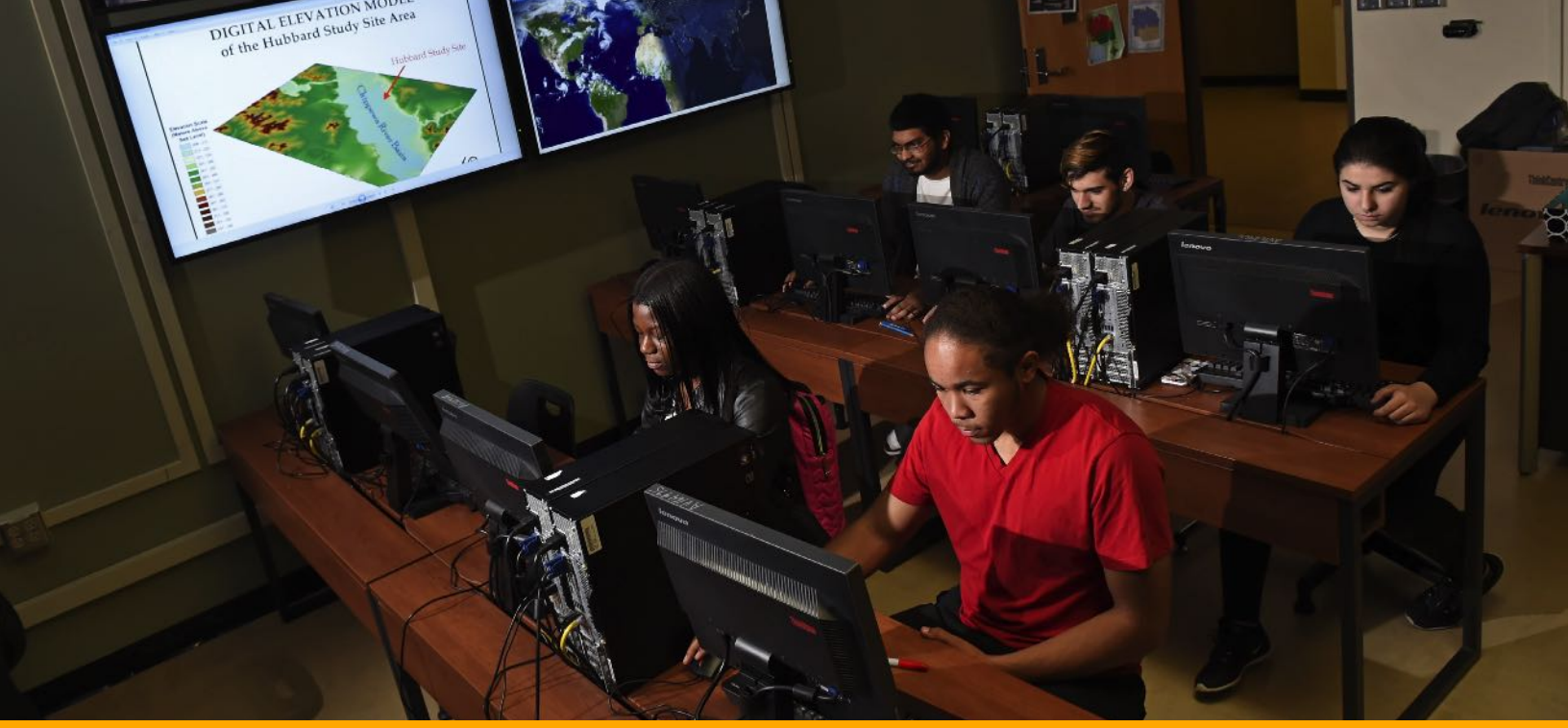

SYRACUSE CITY SCHOOL DISTRICT

Career and Technical Education

CTE

Internship Handbook

Preparing today's students for tomorrow's careers.

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2. Career & Technical Education Program/Teacher Checklist

Employer Internship Partner Guidelines

1. Employer Safety Requirements
2. Expectations and responsibilities of the employer partner
3. Worksite/Employer Internship Partner Checklist

Student Intern Guidelines

1. Student Intern expectations and responsibilities
2. Student Internship Checklist

FORMS

NYSED Application for Employment Certificate (NYSED form attached)
SCSD Certificate of insurance to cover student liability (sample attached)
SCSD Memorandum of Agreement (Form #1)
SCSD Internship Program Application (Form #2)
SCSD Internship Ready to Work Assessment (Form #3)
SCSD Internship Training Plan (Form #4)
SCSD Notification of unpaid internship (Form #5)
SCSD Internship Safety Certification (Form #6)
SCSD Worksite Orientation (Form #7)
SCSD Weekly Time Log/Record of Attendance (Form #8)
SCSD Student Evaluation (Form #9)
SCSD Mentor Program Evaluation (Form #10)

Forms are available on SCSD CTE website www.syracusecityschools.com/cte

Introduction

Syracuse City School District Career and Technical Education Work Based Learning

Learning in the workplace is not a new concept. Informal, on-the-job training is an integral part of all workforce development. Work based learning (WBL) provides structured learning experiences for students through exposure to a range of occupations. The Harvard University report, Pathways to Prosperity (February, 2011) suggested that "Work-linked learning should play an especially important role in the new American system of pathways to prosperity. There is mounting evidence that this would be an effective strategy for encouraging young adults to complete both high school and post-secondary degrees. Co-operative education is a tested model that provides students with extensive work experience that is monitored by the school."

Learning in the workplace is connected to and supports learning in the classroom. Work based learning also helps students achieve established academic standards. Properly developed and supported, work based learning provides a practical context for school subject matter and enhances the traditional classroom learning. Work based learning activities promote the development of broad, transferable skills and are a key element of a rigorous and relevant education for students. It enables students to acquire the attitudes, skills and knowledge needed to succeed in today's workplace.

Employer partners can develop and support work based learning experiences that promote the attainment of workplace knowledge and skills. In doing so, they can support academic achievement and personal growth by designing, structuring, supporting and connecting work based learning experiences. Work based learning also supports professional, technical, and work-readiness skills development. Quality work based learning should:

- Be designed to enhance the learning of skills and workplace knowledge in all aspects of the industry
- Be structured to be safe, legal and measurable
- Be developmentally appropriate
- Have identified learning objectives and assess student performance
- Develop career ready practices and provide opportunities for reflection
- Be supported and documented by appropriate planning and training; and
- Comply with State and Federal labor laws

Syracuse City School District Career and Technical Education Internship

A Career and Technical Education Internship provides an important link between the classroom and the workplace for students age 16 and older. It is a structured, time-limited, career preparation activity in which students are assigned to a workplace for a defined period of time to participate in and observe firsthand within a given industry. The internship enhances and adds relevance to classroom learning. The internship may provide the opportunity to work in teams, rotate through a number of departments and job functions, or work on a project of interest to the student. It is essentially a partnership that links school, community, and business/industry to provide a real-world environment in which students are given the opportunity to apply, and thereby enhance, the knowledge and skills obtained in the classroom. The internship is related to the student's CTE program of study, with the primary goals of promoting:

- The exploration of and experience in a field of interest
- Exposure to a wide range of careers and jobs within an industry
- Opportunities to develop, practice and demonstrate new skills
- The acquisition of occupational knowledge and awareness of the skills and education needed to be successful in the industry

Career & Technical Program/ Teacher Guidelines

Legal Requirements of SCSD CTE Internship Program

All Career and Technical Education Internship Programs have the common objective of providing opportunities for students to develop and demonstrate job skills at a supervised worksite. They are supported by training plans developed cooperatively by the employer, instructor, and student. There should be ongoing communication between the job mentors and the CTE teacher or work based learning coordinator concerning students' performance and needs.

Each internship program needs to have the following:

- New York State Education Department (NYSED) approval of the CTE program
- The employer understands that the student placement is governed by NYSED, New York State Workers' Compensation Board (NYSWCB), New York State Department of Labor (NYSDOL), and United States Department of Labor (USDOL) labor laws and regulations
- Employer is provided a Certificate of Insurance from school where school liability insurance protects the employer from any damage student may do in the workplace
- Students are given written notification that this program is unpaid and they are not due any wages per NYSDOL regulations
- Per NYS, students are required to receive coverage under the employer's Workers' Compensation Insurance if student is interning for a for-profit company. If student is interning at a non-profit entity, the student is required to be covered by the employer's visitors or volunteer insurance.
- Worksite must be in compliance with Occupational Safety and Health Administration (OSHA) regulations. Health and safety instruction/training appropriate for the job is provided by the SCSD and employer specific training is provided by the employer on the worksite.
- Memorandum of Agreement is in effect between the cooperating business and the education agency and outlines the responsibilities of the student, employer, parent/guardian, and school/coordinator, all of whom must sign to confirm their support of the agreement.
- Students complete an Internship Application indicating their understanding of, and agreement to, all rules and regulations of the program.
- Students receive instruction embedded within their CTE curriculum relating to the technical and career ready practices.
- An Internship Training Plan (ITP) is developed and used for each participating student. The plan identifies the general and specific job tasks the student will perform on the job, the desired learning outcomes of the experience, and the time frame the student will spend at each task. The training plan should be designed to ensure that the student will have a progressive learning experience.
- All participating students are meeting, or have met, academic requirements of their CTE programs and academic subjects. No students on academic probation will participate in the internship.
- Employment Certificate (Working Papers) for students provide verification that a student under age 18 is eligible for employment. The student, employer, and school must complete the form. Employment certificates are obtained at the high school – typically the main office, health office, or guidance office.
- Time Log/Record of Attendance provides an official record of the weekly and cumulative hours the student has worked during the experience. It must be maintained for each student.
- An intern evaluation will be done by the CTE teacher before the internship, at the midpoint of the internship and at the end of the internship. This same form will be completed by the on-site supervisor in the midpoint and at the end of the internship.

SCSD CTE Internship Program Checklist (To be completed by CTE teacher or WBL coordinator)

- ☐ NYSED has approved the CTE program
- ☐ The employer understands that the student placement is governed by NYSED, NYSWCB, NYSDOL, and USDOL labor laws and regulations
- ☐ NYSED Application for Employment certificate (working papers, usually available in school counseling office) has been verified (NYSED form attached)
- ☐ Employer is provided with a Certificate of Insurance from school to cover liability (sample attached)
- ☐ A written Memorandum of Agreement is in effect between the cooperating business and the education agency (**Form #1**)
- ☐ Students complete an Internship Application indicating their understanding of, and adherence to all rules and regulations set forth by the program. (**Form #2**)
- ☐ Students receive instruction embedded within their CTE curriculum relating to the technical and Career Ready Practices. The CTE teacher and the student have completed the SCSD CTE Internship Ready to Work Assessment (**Form #3**)
- ☐ An Internship Training Plan (ITP) is developed and used for each participating student (**Form #4**)
- ☐ Students are given written notification that this program will be unpaid and they are not due any wages per NYS DOL regulations (**Form #5**)
- ☐ All SCSD internship candidates have received appropriate safety certification for the industry provided by the school before internship and employer specific training and orientation is provided by the employer on the worksite (**Form #6 & Form #7**)
- ☐ All participating students are meeting, or have met, academic requirements of their CTE programs and academic subjects
- ☐ Review Time Log/Record of Attendance which serves as an official record of the hours the student has worked during the experience (**Form #8**)

REQUIRED FORMS

NYSED Application for Employment Certificate

Certificate of Insurance

SCSD Memorandum of Agreement
(Form #1)

SCSD Internship Program Application
(Form #2)

SCSD Internship Ready to Work Assessment
(Form #3)

SCSD Internship Training Plan
(Form #4)

SCSD Notification of unpaid internship
(Form #5)

SCSD Internship Safety Certification
(Form #6)

SCSD Worksite Orientation
(Form #7)

SCSD Weekly Time Log/Record of Attendance
(Form #8)

Forms are available online at the SCSD CTE website : www.syracusecityschools.com/cte

CTE Teacher/WBL Coordinator

Date

Employer Internship Partner Guidelines

SCSD CTE Internship Employer Requirements

Safety

At all times, both school personnel and the employment site personnel must take appropriate steps to ensure that safe practices are stressed and followed. However, it is impossible to guarantee that no injuries resulting in medical expenses and liability will occur. The following prudent steps are encouraged:

1. In-school course content must include training related to safety at the worksite. Appropriate safety certification should be offered if possible. SCSD internship candidates will have received appropriate safety training before beginning their internship.
2. Any sites used for SCSD CTE internships will be reviewed by school personnel prior to placing a student at the worksite.
3. Employers must provide safety training information to interns as they would a new employee. Safety training must be provided if the employer engaged in a particularly hazardous occupation for minors as defined by the USDOL.
4. Provisions for student safety must be included as part of the training agreement signed by the employer, student, parent, and school representative.

Types of Liability Insurance and Risk Management

Workers' Compensation and Employer Liability Insurance

All employers will have a policy that provides coverage for the Workers' Compensation statutory benefits as well as liability coverage for certain employment-related situations. Verification of employer's Workers Compensation insurance will be included in the Memorandum of Agreement. The SCSD will also have insurance that covers the student participating in a school-related internship experience.

SCSD CTE Internship Expectations & Responsibilities of Employer

Before

- Determine projects or activities that would be appropriate for your student intern
- Communicate with staff that an intern will be at the workplace and identify mentors
- Designate one employee, the on-site supervisor, to work with coordinator/teacher to develop and define successful student objectives and experiences and record on the student Internship Training Plan

During

- Provide student with a Work Site Orientation to organization and any required training
- Train student intern for your work site, including all work site safety training
- Maintain a quality, safe and legal learning experience; provide effective supervision
- Use the Internship Training Plan as a guide for the internship; hold intern to employee standards/ expectations; oversee, direct, and provide adequate tasking to maximize learning
- Meet with coordinator/teacher and student to decide on an ongoing communications strategy
- Evaluate intern work and provide constructive criticism
- Assist student in working toward learning outcomes
- Coordinate student schedule, approve weekly timesheets
- Communicate successes and opportunities at the workplace that the teacher can use to enhance the value of classroom connections
- Complete a student evaluation midway through internship and discuss with student

After

- Complete a final evaluation of the student
- Hold debriefing session and review performance with the student and teacher
- Complete a Program Evaluation

SCSD CTE Internship Employer Internship Partner Checklist (To be completed by On-Site Supervisor/Mentor)

- ☐ Meet with coordinator/teacher and student to agree on ongoing communication strategy (e-mail, text, telephone, etc.)
- ☐ A written Memorandum of Agreement is in effect between the cooperating business and the education agency (**Form #1**)
- ☐ Work with coordinator/teacher to develop and define successful student objectives and experiences and record on the student Internship Training Plan (**Form #4**)
- ☐ Coordinate student schedule, approve weekly time log/record of attendance (**Form #8**)
- ☐ Communicate with staff that an intern will be at the workplace and identify on-site supervisor and/or mentor

On-Site Supervisor _____

Mentor Name _____

- ☐ Provide student with Work Site Orientation to organization and any required training (Form #7)
- ☐ Create and maintain a quality, safe and legal learning experience
- ☐ Hold intern to employee standards/expectation; provide student support and candid feedback
- ☐ Communicate successes and opportunities at the workplace that the teacher can use to enhance the value of classroom connections
- ☐ Complete an interim SCSD CTE Internship Ready to Work Assessment of student performance and discuss with student (**Form #3**)
- ☐ Provide effective supervision
- ☐ Complete a final assessment of the student (**Ready to Work Assessment, Form #3 and Student Training Plan, Form #4**)
- ☐ Complete a program evaluation (**Form #10**)

REQUIRED FORMS

SCSD Memorandum of Agreement
(Form #1)

SCSD Internship Ready to Work Assessment
(Form #3)

SCSD Internship Training Plan
(Form #4)

SCSD Worksite Orientation
(Form #7)

SCSD Weekly Time Log/Record of Attendance
(Form #8)

SCSD Mentor Program Evaluation
(Form #10)

Forms are available online at the SCSD CTE website : www.syracusecityschools.com/cte

_____ _____

Employer/ Mentor Date

Student Intern Guidelines

Expectations and Responsibilities of Students

Before

- Obtain working papers (if under 18)
- Return Internship Application and all permission slips with appropriate signatures
- Meet with your teacher/coordinator and worksite supervisor to finalize an Internship Training Plan

During

- Attend Orientation at the worksite
- Observe all workplace rules and regulations particularly those applicable to safety and security concerns
- Perform all duties, jobs and assigned tasks; treat internship like a real job
- Maintain regular work schedule and notify supervisor in advance of any vacation/appointments
- Track you hours as instructed on Weekly Timesheet
- Develop skill specific learning outcomes with your worksite supervisor
- Participate in ongoing reflection journal activities and skill building classroom assignments
- Communicate with your teacher/coordinator and worksite supervisor if issues arise
- Keep copies of all necessary paperwork (work journal, training plan, Weekly Time Log/Record of Attendance, and evaluations)

After

- Participate in self-evaluation and reflection activities
- Update your resume based upon new skills and experiences gained
- Send thank you note to employer

SCSD CTE Internship Student Checklist (To be completed by student)

- ☐ Obtain NYSED Application for Employment Certificate (usually available in school counseling office, application attached)
- ☐ A written Memorandum of Agreement is in effect between the cooperating business, the education agency, and signed by student and parents (**Form #1**)
- ☐ Return Internship Application (**Form #2**) and all permission slips with appropriate signatures
- ☐ Develop skill specific learning outcomes with your worksite supervisor
- ☐ Meet with your teacher/coordinator and worksite supervisor to finalize an Internship Training Plan for the internship (**Form #4**)
- ☐ Attend orientation at the worksite (**Form #7**)
- ☐ Observe all workplace rules and regulations particularly those applicable to safety and security concerns
- ☐ Perform all duties, jobs and assigned tasks; treat internship like a real job
- ☐ Maintain regular work schedule and notify supervisor in advance of any vacation/appointments
- ☐ Track you hours as instructed on time log/record of attendance (**Form #8**)
- ☐ Participate in ongoing reflection activities and skill building classroom assignments
- ☐ Communicate with your teacher/coordinator and worksite supervisor, if issues arise and keep copies of all necessary paperwork (work journal, training plan, Weekly Time Log/Record of Attendance, and evaluations)
- ☐ Participate in self-evaluation and reflection activities (**Forms #3 & #9**)
- ☐ Update your resume based on new skills and experiences gained
- ☐ Send thank you note to employer

REQUIRED FORMS

SCSD Memorandum of Agreement
(Form #1)

SCSD Internship Program Application
(Form #2)

SCSD Internship Ready to Work Assessment
(Form #3)

SCSD Internship Training Plan
(Form #4)

SCSD Worksite Orientation
(Form #7)

SCSD Weekly Time Log/Record of Attendance
(Form #8)

SCSD Student Evaluation
(Form #9)

Forms are available online at the SCSD CTE website : www.syracusecityschools.com/cte

Student _____ Date _____

SCSD CTE Internship Forms

NYSED Application for Employment Certificate

SCSD Certificate of Insurance to Cover Student Liability (Sample)

Form #1	SCSD Memorandum of Agreement
Form #2	SCSD Internship Program Application
Form #3	SCSD Internship Ready to Work Assessment
Form #4	SCSD Internship Training Plan
Form #5	SCSD Notification of unpaid internship
Form #6	SCSD Internship Safety Certification
Form #7	SCSD Worksite Orientation
Form #8	SCSD Weekly Time Log/Record of Attendance
Form #9	SCSD Student Evaluation
Form #10	SCSD Mentor Program Evaluation

Forms are available on SCSD CTE website at www.syracusecityschools.com/cte

AT-17
Rev. 5/10

THE UNIVERSITY OF THE STATE OF NEW YORK
THE STATE EDUCATION DEPARTMENT
ALBANY, NY 12234

APPLICATION FOR EMPLOYMENT CERTIFICATE

See reverse side of this form for information concerning employment of minors.

All signatures must be handwritten in ink, and applicant must appear in person before the certifying official.

THIS APPLICATION DOES NOT AUTHORIZE EMPLOYMENT

PART I – Parental Consent – (To be completed by applicant and parent or guardian)

Parent or guardian must appear at the school or issuing center to sign the application for the first certificate for full-time employment, unless the minor is a graduate of a four-year high school and presents evidence thereof. For all other certificates, the parent or guardian must sign the application, but need not appear in person to do so.

Date……

I, …… Age ……..…
[Applicant]

Home Address ……....., apply for a certificate as checked below
[Full Home Address including Zip Code]

- ☐ Nonfactory Employment Certificate – Valid for lawful employment of a minor 14 or 15 years of age enrolled in day school when attendance is not required.
- ☐ Student General Employment Certificate – Valid for lawful employment of a minor 16 or 17 years of age enrolled in day school when attendance is not required.
- ☐ Full-Time Employment Certificate – Valid for lawful employment of a minor 16 or 17 years of age who is not attending day school.

I hereby consent to the required examination and employment certification as indicated above.

……
[Signature of Parent or Guardian]

PART II – Evidence of Age – (To be completed by issuing official only)

……. – Check evidence of age accepted – Document # (if any) ……..
[Date of Birth]

Birth Certificate State Issued Photo I.D Driver's License Schooling Record Other……
[Specify]

PART III – Certificate of Physical Fitness

Applicant shall present documentation of physical exam from a school or private physician, physician's assistant or nurse practitioner licensed to practice within New York State. Said examination must have been given within 12 months prior to issuance of the employment certificate. Date of physical exam on file with school …… If physical exam is over 12 months, provide student with certificate of physical fitness to be completed by school medical director or private health care provider.

If the physical exam or Certificate of Physical Fitness is limited with regards to allowed work/activity, the issuing official shall issue a Limited Employment Certificate (valid for a period not to exceed 6 months unless the limitation noted by the physician is permanent, then the certificate will remain valid until the minor changes jobs. Enter the limitation on the employment certificate. THE PHYSICIAN'S CERTIFICATION SHOULD BE RETURNED TO THE APPLICANT.

PART IV – Pledge of Employment – (To be completed by prospective employer)

Part IV must be completed only for: (a) a minor with a medical limitation; and (b) for a minor 16 years of age or legally able to withdraw from school, according to Section 3205 of the Education Law, and must show proof of having a job.

The undersigned will employ …… residing at ……
[Applicant]

as …… at ……
[Description of Applicant's Work] **[Job Location]**

for …… days per week …….. hours per day, beginning …… a.m. ……..…… p.m.

…… Factory ending…… a.m. ……p.m.
[Name of Firm]

Nonfactory ……..
[Address of Firm]

…… Starting date …….. ……..
[Telephone Number] **[Signature of Employer]**

PART V – Schooling Record – (To be completed by school official)

Part V must be completed only for a minor 16 years of age who is leaving school and resides in a district (New York City and Buffalo) which require a minor 16 years of age to attend school, according to Section 3205 of the Education Law.

I certify that the records of …… ……
[Name of School] **[Address]**

Show that …….. whose date of birth is ……
[Name of Applicant]

Is in grade…… ……
[Signature of Principal or Designee]

PART VI – Employment Certification – (To be completed by issuing official only)

Certificate Number ……..... Date Issued ……

…… …….. ……
[School or Issuing Center] **[Address]** **[Signature of Issuing Officer]**

GENERAL INFORMATION

An employment Certificate (Student Nonfactory, Student General, or Full Time) may be used for an unlimited number of successive job placements in lawful employment permitted by the particular type of certificate.

A Nonfactory Employment Certificate is valid for 2 years from the date of issuance or until the student turns 16 years old, with the exception of a Limited Employment Certificate. A Limited Employment Certificate is valid for a maximum of 6 months unless the limitation noted by the physician is permanent, then the certificate will remain valid until the minor changes job. It may be accepted only by the employer indicated on the certificate.

A new Certificate of Physical Fitness is required when applying for a different type of employment certificate, if more than 12 months have elapsed since the previous physical for employment.

An employer shall retain the certificate on file for the duration of the minor's employment. Upon termination of employment, or expiration of the employment certificate's period of validity, the certificate shall be returned to the minor. A certificate may be revoked by school district authorities for cause.

A minor employed as a Newspaper Carrier, Street Trades Worker, Farmworker, or Child Model, must obtain the Special Occupational Permit required.

A minor 14 years of age and over may be employed as a caddy, babysitter, or in casual employment consisting of yard work and household chores when not required to attend school. Employment certification for such employment is not mandatory.

An employer of a minor in an occupation which does not require employment certification should request a Certificate of Age.

PROHIBITED EMPLOYMENT

Minors 14 and 15 years may not be employed in, or in connection with a factory (except in delivery and clerical employment in an enclosed office thereof), or in certain hazardous occupations such as: construction work; helper on a motor vehicle; operation of washing, grinding, cutting, slicing, pressing or mixing machinery in any establishment; painting or exterior cleaning in connection with the maintenance of a building or structure; and others listed in Section 133 of the New York State Labor Law.

Minors 16 and 17 years of age may not be employed in certain hazardous occupations such as: construction worker; helper on a motor vehicle, the operation of various kinds of power-driver machinery; and others listed in Section 133 of the New York State Labor Law.

HOURS OF EMPLOYMENT

Minors may not be employed during the hours they are required to attend school.

Minors 14 and 15 years of age may not be employed in any occupation (except farmwork and delivering, or selling and delivering newspapers):

When school is in session:

- more than 3 hours on any school day, more than 8 hours on a nonschool day, more than 6 days in any week, for a maximum of 18 hours per week, or a maximum of 23 hours per week if enrolled in a supervised work study program approved by the Commissioner.
- after 7 p.m. or before 7 a.m.

When school is not in session:

- more than 8 hours on any day, 6 days in any week, for a maximum of 40 hours per week.
- after 9 p.m. or before 7 a.m.

This certificate is not valid for work associated with newspaper carrier, agriculture or modeling.

Minors 16 and 17 years of age may not be employed: --

When school is in session:

- more than 4 hours on days preceding school days; more than 8 hours on days not preceding school days (Friday, Saturday, Sunday and holidays), 6 days in any week, for a maximum of 28 hours per week.
- between 10 p.m. and 12 midnight <u>on days followed by a school day</u> without written consent of parent of guardian <u>and</u> a certificate of satisfactory academic standing from the minor's school (to be validated at the end of each marking period).
- between 10 p.m. and 12 midnight <u>on days not followed by a school day</u> without written consent of parent or guardian.

When school is not in session:

- more than 8 hours on any day, 6 days in any week, for a maximum of 48 hours per week.

EDUCATION LAW, SECTION 3233

"Any person who knowingly makes a false statement in or in relation to any application made for an employment certificate or permit as to any matter by this chapter to appear in any affidavit, record, transcript, certificate or permit therein provided for, is guilty of a misdemeanor."

ACORD® CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	

INSURED	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A :	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	**GENERAL LIABILITY**						EACH OCCURRENCE	$
	☐ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	☐ CLAIMS-MADE ☐ OCCUR						MED EXP (Any one person)	$
	500,000 Retained						PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	☐ POLICY ☐ PRO-JECT ☐ LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ☐ NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	☐ **UMBRELLA LIAB** ☐ OCCUR						EACH OCCURRENCE	$
	☐ **EXCESS LIAB** ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N	N / A					☐ WC STATU-TORY LIMITS ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ **(Mandatory in NH)**						E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Teacher

Employer

Student

Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

Memorandum of Agreement

(Form #1)

Type of Work Based Learning Experience: Non-Paid Internship

This Work Based Learning Experience Agreement is entered into by and between the Syracuse City School District (SCSD) _____ (Student), his/her Parents/Guardian, _____ (Parent/Guardian), and his/her Work Experience Employer, _____ (Employer), on the date indicated below, whereby the Student will participate in a CTE Internship (Program at the Employer's place of business located at _____ , on _____ , during the hours of _____ .

THE STUDENT UNDERSTANDS THAT HIS/HER CONDUCT IS A REFLECTION UPON THE SCHOOL NAME AND AGREES THAT HE/SHE WILL:

1. Provide his/her own transportation to and from the Employer's place of business (the SCHOOL, the Student's home school, the SCHOOL and the Employer are in no way responsible for providing the Student with transportation to and/or from the Employer's place of business at any time or for any incidents or accidents which may occur while the Student is on route to or from the Employer's place of business)
2. Demonstrate a conscientious attitude and be honest, punctual, cooperative, courteous and willing to learn while at the Employer's place of business.
3. Keep regular attendance as agreed upon with the Employer, excluding Employer-observed holidays, days on which the Employer's place of business is closed or other legal absences and understands that his/her attendance will be taken from his/her weekly attendance reports.
4. Keep regular attendance at his/her home school.
5. Give the Employer as much advance notice as possible if unable to report for work or to do so in a timely manner and contact the CTE teacher at (315) _____.
6. Report to SCHOOL if the Internship location is closed for any reason during at time in which the student is scheduled to be at the Internship location and SCHOOL is in session.
7. Complete weekly time log/record of attendance (Form # 8) reports as required by SCHOOL.
8. Engage in only those work based learning experiences approved by the supervisor at the work-site.

THE EMPLOYER AGREES THAT IT WILL:

1. Not permit the Student to replace any paid employee (in the case of an Internship).
2. Advise the Student of all company rules, regulations and policies which relate to the Student.
3. Explain to the Student the responsibilities and duties of his/her internship and shall correlate on-the-job training with safety instructions given by the SCHOOL.
4. The work of the Student in occupations declared particularly hazardous by the U.S. Department of Labor shall be (i) incidental to the Student's training; (ii) intermittent and for short periods of time; and (iii) under the direct and close supervision of a qualified and experienced person.
5. Provide direct supervision by an authorized employee to the Student as needed.
6. Complete an accident report form and return to SCHOOL in the event of an accident.
7. Review the Student's performance with him/her on a weekly basis and sign a weekly time sheet, complete an evaluation of the Student on forms provided by the SCHOOL.
8. Inform the SCHOOL Instructor/Coordinator when the Student is absent or not performing adequately by calling (315)_____ .

9. Observe any and all laws that may relate to the Student's work experience.

THE SCHOOL AGREES THAT IT WILL:

1. Carry the insurance listed for students during class activities including internships, job experiences and work placement.
2. Accident Insurance: SCHOOL carries tertiary accident insurance to cover medical expenses as a result of an accident. The parent's health insurance is primary and the home school district would be secondary. General Liability Insurance: SCHOOL carries general liability insurance to cover up to one million dollars for a single event. As added protection, a ten million dollar umbrella policy is also in effect.
3. Assist the Student in securing internship placement regardless of his/her sex, race, color, national origin or disability (all inquiries and/or complaints regarding discrimination should be directed to the compliance officer, Patty Clark, SCSD Central Office, 725 Harrison Street, Syracuse, New York 13210. Telephone: (315) 435-4131.
4. Provide the STUDENT with safety instructions correlated by the EMPLOYER with on-the-job training.
5. Review with the Student and the Employer their respective responsibilities and obligations while participating in the Program.

The parties/signatories hereby agree that good communication and understanding between them is vital if the objectives of this Program are to be met and that joint conferences between the Student, Employer, Parent/Guardian, Instructor, and others may be scheduled from time to time in order to discuss:

1. the student's progress
2. any misunderstandings
3. the reason for termination of the Agreement

This Agreement is not in effect until signed by all parties. This Agreement may be terminated at any time by any party upon written notice to the other parties.

We the undersigned, have reviewed and agreed to the terms and conditions set forth herein.

Date	/ /	Student
Date	/ /	Parent/ Guardian
Date	/ /	Daytime Phone
		Evening Phone
Date	/ /	Employer/ Supervisor
Date	/ /	CTE Teacher
Date	/ /	Home School Principal

The Syracuse City School District hereby advises students, parents, employees and the general public that it is committed to providing equal access to all categories of employment, programs and educational opportunities, including career and technical education opportunities, regardless of actual or perceived race, color, national origin, Native American ancestry/ethnicity, creed or religion, marital status, sex, sexual orientation, age, gender identity or expression, disability or any other legally protected category under federal, state or local law.
Inquiries regarding the District's non-discrimination policies should be directed to:
Executive Director of Student Support Services, Civil Rights Compliance Officer, Syracuse City School District, 725 Harrison Street • Syracuse, NY 13210
(315) 435-4131, Email: CivilRightsCompliance@scsd.us

Teacher

Student

Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

CTE Internship Program Application Form

(Form #2)

Personal Information

Last Name	First Name	Age	Date of Birth
Street		Home Telephone Number	Cell Phone Number
City, State, Zip		Emergency Contact Name	Telephone Number
Email Address		Relationship to Emergency Contact	
Primary Parent/ Guardian Name		Parent/ Guardian's Telephone Number Home Cell	
Primary Parent/ Guardian Email			
Secondary Parent/ Guardian Name		Secondary Parent/ Guardian's Telephone Number Home Cell	
Secondary Parent/ Guardian Email			
Working Papers Certificate Number		SCSD Student schedule should be attached to this form School Counselor	

School Year Training/ Work Schedule Availability

Please list the hours you can work during a typical weekly schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Please check applicable box: ☐ Fixed Schedule ☐ Schedule will vary

Sports, Clubs, and Other Activities

Transportation

Please check the appropriate response

Do you have a license? ☐ Yes ☐ No	If YES, which license do you have? ☐ Full License ☐ Junior License
Do you drive to school? ☐ Yes ☐ No	License Number:

If you do not have a license, how do you plan on getting to and from your internship?

☐ Public Transportation ☐ Other

Teacher

Student

INSURANCE COVERAGE IN CASE OF INJURIES TO STUDENT AT INTERNSHIP:

EMPLOYER'S WORKER'S COMPENSATION MUST COVER THE STUDENT IN CASE OF INJURIES AT TRAINING SITE.

PROGRAM AWARENESS STATEMENT TO BE CHECKED BY STUDENTS:

☐ In order to receive credit for my work-based learning experience, I must be training at a legal site approved by the school's CTE Teacher or work-based learning coordinator.

☐ I must notify my CTE teacher or work-based learning coordinator immediately if there is a change of work schedule or duties at the training site.

☐ Failure to report any disciplinary action, termination, or proper documentation of hours may result in the student not earning school credit.

☐ Students must present all daily attendance records to CTE teacher or work-based learning coordinator weekly and complete all assignments related to the program.

☐ I must immediately notify my work-based learning coordinator if I have or develop any medical condition(s) which affects my ability to participate in training, such as allergies, lifting heavy items, movement, standing, sitting, migraine headaches, etc. If there are any current conditions, please state them below. The presence of such a condition will not necessarily preclude me from participating in the internship and accommodations may be provided.

PARENTAL/GUARDIAN PERMISSION AND PICTURE/NEWS STORY RELEASE:

I give my child,_____ permission to participate in the work-based learning internship at the Syracuse City School District. By signing the parental permission form, it is understood that:

- All the information is accurate.
- In order to receive credit, students must work a minimum of 150 hours during the school year.
- All students must report to CTE teacher or work-based learning coordinator in the case of any change in employment.
- Failure to report any disciplinary action, termination, or proper documentation may result in the student not earning school credit.
- Students must present all daily attendance records to CTE teacher or work-based learning coordinator weekly and complete all assignments related to the program.
- A student with a junior license must only drive to school if they go directly to work following the school day and they must carry with them the proper paperwork as directed by the work-based learning coordinator.

In addition to agreeing with the above statements, please check off one:

☐ I give permission for my child's photograph or name to be used to promote the Work Experience Program.

☐ I do not want my child's photograph or name to be used to promote the Work Experience Program.

_____	_____	___/___/___
Parent/ Guardian's Name	Parent/ Guardian's Signature	Date

_____
Relationship to Student

_____	_____	___/___/___
Student's Name	Student's Signature	Date

The Syracuse City School District hereby advises students, parents, employees and the general public that it is committed to providing equal access to all categories of employment, programs and educational opportunities, including career and technical education opportunities, regardless of actual or perceived race, color, national origin, Native American ancestry/ethnicity, creed or religion, marital status, sex, sexual orientation, age, gender identity or expression, disability or any other legally protected category under federal, state or local law. Inquiries regarding the District's non-discrimination policies should be directed to: Executive Director of Student Support Services, Civil Rights Compliance Officer, Syracuse City School District, 725 Harrison Street • Syracuse, NY 13210/ (315) 435-4131, Email: CivilRightsCompliance@scsd.us

Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

CTE Internship Ready to Work Assessment

(Form #3)

Teacher | Employer | Student

Name _____ Program _____ Date ___/___/___

Scale

1 = Seldom. 2 = Occasionally. 3 = Usually. 4 = Always.

		Student	Teacher	Onsite Supervisor
ZEST				
1	Actively participates			
2	Shows enthusiasm			
3	Invigorates others			
GRIT				
4	Finishes whatever he or she begins			
5	Tries very hard even after experiencing failure			
6	Works independently with focus			
SELF CONTROL SCHOOL WORK				
7	Comes to class prepared			
8	Pays attention and resists distractions			
9	Remembers and follows directions			
10	Gets to work right away rather than procrastinating			
SELF-CONTROL INTERPERSONAL				
11	Remains calm even when criticized or otherwise provoked			
12	Allows others to speak without interruption			
13	Is polite to adults and peers			
14	Keeps his/her temper in check			

		Student	Teacher	Onsite Supervisor
OPTIMISM				
15	Gets over frustrations and setbacks quickly			
16	Believes that effort will improve his or her future			
GRATITUDE				
17	Recognizes and shows appreciation for others			
18	Recognizes and shows appreciation for his/her opportunities			
SOCIAL INTELLIGENCE				
19	Is able to find solutions during conflicts with others			
20	Demonstrates respect for feelings of others			
21	Knows when and how to include others			
CURIOSITY				
22	Is eager to explore new things			
23	Asks and answers questions to deepen understanding			
24	Actively listens to others.			
ACADEMIC PERFORMANCE				
25	Completes all assignments with quality and timeliness			
26	Uses tools appropriately and safely			
COMMITMENT				
27	Attends class with one or less absences per quarter			
28	Demonstrates loyalty and appreciation to the program and instructors			

Teacher

Employer

Student

Syracuse City School District

Syracuse City School District
725 Harrison Street, Syracuse, NY 13210

CTE Internship Training Plan
(Form #4)

Student's Name	Email	
Student's Address	Telephone	Date of Birth
CTE Program Career Cluster	Working Papers Certificate #	
School Coordinator		
Phone Number		
Fax Number		
Email		
Employer		
Phone Number		
Fax Number		
Email		
Immediate Job Supervisor		
Phone Number		
Email		
Corporate Address		

Training Schedule

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

Insurance Coverage

- ☐ Student is a non-paid intern – Worker's Compensation
- ☐ Student is a non-paid observer – Worker's Compensation

Transportation Provided by

- ☐ Student/parent will provide own transportation
- ☐ School district will provide transportation during school hours

Goals for this Work-Based Learning Student:

1. To explore, learn and develop the skills necessary for this career.
2. To develop the Career Ready Practices necessary for success in the global, competitive world.
3. To be trained in the safe operations of this job title.
4. To be able to demonstrate positive behavior and appropriate dress.

(Form #4 Continued)

JOB TASKS AND LEARNING OUTCOMES (Determined by the Employer and Coordinator)	ACHIEVEMENT LEVEL AND COMMENTS 1. Mastered skill 2. Needs more training at the work site. 3. Needs more training at school. 4. Has not reached this training area.
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

CAREER READY PRACTICES	Always	Frequently	Occasionally	Rarely
1. Student works cooperatively as a team member?	☐	☐	☐	☐
2. Student is able to read instructions for information and application.	☐	☐	☐	☐
3. Student can calculate and measure for information and application.	☐	☐	☐	☐
4. Student can behave in a responsible manner without supervision.	☐	☐	☐	☐
5. Student can communicate verbally and in writing to evoke clear understanding.	☐	☐	☐	☐
6. Student demonstrates good listening and follow through skills.	☐	☐	☐	☐
7. Student demonstrates critical thinking and problem solving skills.	☐	☐	☐	☐
8. Student can locate and manage resources for problem solving.	☐	☐	☐	☐
9. Student demonstrates a positive work ethic.	☐	☐	☐	☐
10. Student demonstrates computer literacy.	☐	☐	☐	☐

(Form #4 Continued)

SAFETY TRAINING	DATE OF SAFETY TRAINING	ACHIEVEMENT LEVEL AND COMMENTS 1. Mastered safety training instruction. 2. Needs more safety training at work site. 3. Needs more safety training at school. 4. Has not reached this training area.
1. Safety precautions related to stairs, floors, office equipment and furniture.		
2. Safety precaution related to proper dress apparel, shoes, gloves, head, eye and ear protection.		
3. Safety precaution related to use of tools, machines, and chemicals.		
4. Safety precautions related to fire, weather and other natural disasters.		
5. Safety precautions related to sexual harassment and workplace violence.		

DRESS AND BEHAVIOR CODE FOR POSITION	ACHIEVEMENT LEVEL AND COMMENTS 1. Dresses/behaves appropriately 2. Needs to modify dress/behavior. 3. Needs personal consultation.

Employer Name	Employer Signature	Date / /
Work-based Learning Coordinator Name	Work Based Learning Coordinator Signature	Date / /
Parent/ Guardian Name	Parent/Guardian Signature	Date / /
Student Name	Student Signature	Date / /

If you have any questions please do not hesitate to contact me at (315) 435-_____.

Thank you for your cooperation! _____ , CTE Teacher

Syracuse City School District

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SCSD CTE Internship
Notification of Unpaid Internship
(Form #5)

This form serves as notification that the Syracuse City School District CTE Internship is an unpaid internship and students are not due any wages per New York State Department of Labor.

_____	____/____/____
Student	Date
_____	____/____/____
CTE Teacher/ WBL Coordinator	Date
_____	____/____/____
Worksite Representative/ Mentor	Date

Syracuse City School District

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SCSD Internship Safety Certification
(Form #6)

Student _____ Date ____/____/____

Mentor or Supervisor _____ CTE/ WBL Teacher _____

Student CTE Program SCSD Career and Technical Program:

_____

SAFETY CERTIFICATIONS		Date
OSHA 10	☐	/ /
Safe Serv	☐	/ /
First Aid	☐	/ /
CPR	☐	/ /
Other	☐	/ /

Teacher

Employer

Student

Syracuse City School District

Syracuse City School District
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SCSD Internship Worksite Orientation
(Form #7)

Student _____ Date ___/___/___

Mentor or Supervisor _____ CTE/ WBL Teacher _____

Company Orientation

Directions: Be sure that your student employee obtains information about the factors listed below. Check the information on each item as it is completed. Return the completed form to the CTE Teacher or Work Based Learning Coordinator.

Tour of Workplace

- ☐ A tour of the workplace
- ☐ An overview of the company safety plan
- ☐ Introductions to co-workers

Tour of Employee Facilities

- ☐ Rest rooms
- ☐ Lunch room
- ☐ Where to store personal belongings

Other _____

Safety Plan

- ☐ Safety plan
- ☐ Stairwell/fire exits
- ☐ Fire Extinguishers
- ☐ Special hazards
- ☐ Accident prevention
- ☐ Safety Training Log, updated as needed

About the Company

- ☐ Discuss company organizational structure
- ☐ Review type of business, products, services
- ☐ Overview of who the customers are

Other _____

Department/Position Specifics

- ☐ Explanation of work schedule
- ☐ Review of dress and conduct code
- ☐ Review of hours, breaks and lunch policies
- ☐ Location of time clock or sign-in
- ☐ Attendance requirements, including procedures for calling in when absent
- ☐ Relationship to working with other departments or co-workers

Job Specific

- ☐ How to use the phones and office equipment
- ☐ Supplies, paper, pens, etc.
- ☐ Job description, Work-Based Learning Plan and evaluation process

Supervisors Expectations

- ☐ Dress code including clothing, hair and jewelry
- ☐ Work performance including productivity and work habits
- ☐ Company culture

Materials provided to intern

- ☐ Copy of personnel handbook
- ☐ Organizational charts
- ☐ Telephone directory
- ☐ Security procedures

Employer/training sponsor _____ Date ___/___/___

Student _____ Date ___/___/___

CTE Teacher/WBL Coordinator _____ Date ___/___/___

Teacher

Employer

Student

Syracuse City School District

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Weekly Time Log/Record of Attendance
(Form #8)

Student _____ Training Title _____

Worksite Supervisor _____

Time Log for the Week of: ____/____/____

	Date	Start Time	End Time	Hours Worked
Sunday				
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				

Total Weekly Hours: _____

Student please list any new tasks performed this week: _____

By signing this timesheet, you are certifying that it is correct and truthful.

Student's Signature _____ Date ____/____/____

Supervisor Name _____ Phone _____ Date ____/____/____

Supervisor's Signature _____

Attention Worksite Supervisor:
If you have any questions or concerns, please contact: _____ CTE Teacher _____ Phone

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SCSD CTE Internship Student Evaluation

(Form #9)

Name _____ CTE Program _____

Dates of Internship _____ / _____ / _____ — _____ / _____ / _____ Year to Graduate _____

Please complete this form upon completion of your internship.

	Strongly Agree	Agree	Indifferent	Disagree	Strongly Disagree
Overall, I had a great experience	☐	☐	☐	☐	☐
I was actively involved in the team meetings and felt free to express my thoughts and opinions	☐	☐	☐	☐	☐
My mentors encouraged and responded to my questions	☐	☐	☐	☐	☐
I have an increased appreciation for teamwork	☐	☐	☐	☐	☐
I have a greater ability to ask good questions and synthesize information	☐	☐	☐	☐	☐
I was presented with opportunities to learn by doing	☐	☐	☐	☐	☐
I gained factual knowledge about careers throughout the internship	☐	☐	☐	☐	☐
I would recommend this opportunity to others	☐	☐	☐	☐	☐
My time was well spent	☐	☐	☐	☐	☐
I would consider this employer as a future employer	☐	☐	☐	☐	☐
My co-workers are generally positive about work	☐	☐	☐	☐	☐

The best thing about my experience was… _____

_____

The worst thing about my experience was… _____

_____

Any suggestions on how we could improve the intern experience? _____

_____

Other comments… _____

Syracuse City School District

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SCSD CTE Internship Mentor Program Evaluation

(Form #10)

Student Name _____ SCSD School _____

Interning Location _____

Supervisor/ Mentor Name _____ Date ____/____/____

Internship Preparation

- ☐ Exceptional
- ☐ Adequate
- ☐ Inadequate

Modes of Communication with SCSD Personnel

- ☐ In-Person
- ☐ Email
- ☐ Phone

Amount of Communication with SCSD Personnel

- ☐ Exceptionally good
- ☐ Appropriate
- ☐ Too much
- ☐ Too little

Suggestions for improvement: _____

Additional comments: _____

Return to CTE teacher: _____
CTE Teacher Email

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NOTICE OF NON-DISCRIMINATION

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(315) 435-4131

Email: CivilRightsCompliance@scsd.us

Return to TOC

F. Employability Profile

> *The employability profile is a record of student achievement. That may include documentation of the student's attainment of technical knowledge and work-related skills, endorsements, licenses, clinical experience, work experience, performance on core academic Regent's examinations, performance on industry based assessments, attendance, student leadership honors and achievements and other honors or accolades of student success.*

Process

- An employability profile model is developed for the program
- A profile of student achievement is developed for each student in the program and is maintained in accordance with records and retention policies of the school district/BOCES.
- The profile of student achievement is reviewed and updated on a continuous basis by the student and the appropriate program/guidance personnel.
- The work skills to be mastered by students with disabilities should be aligned with the student's Individualized Education Program (IEP).

Documentation

Recommendations for the employability profile model should be included in the self-study report and reviewed by the external committee.

Source: http://www.p12.nysed.gov/cte/ctepolicy/guide.html

EMPLOYABILITY PROFILE

Geospatial Technology

Industry Based Skill Standards

Proficiency Definitions

NA = Not Applicable **1 = Introduced** **2 = Trained** **3 = Trained/Skilled** **4 =Industry Level Certification/ Mastery**

	9th	10th	11th	12th
History of Maps				
Knowledgeable of the history, societal implications, and industry applications of GIS.				
Map Types				
Understands map types, puposes, and information they depict.				
Principles of Geographic Information Systems				
Understands the basic concepts of geospatial technology, including coordinate systems, rasters, vectors, scale and topography.				
Cartography & Map Layouts				
Create, change and manipulate data used to create a map; label, layout and print adding all map elements.				
Symbology & Classification				
Customize the display of geospatial data and understand the various types of symbology and how they are applied.				
Map Projections				
Demonstrate an understanding of coordinate systems, data frames, map projections, map scale and datums.				
Information Fundamentals				
Ability to manage, query, archive and manipulate geospatial data and understand various file structures and naming conventions.				

	9th	10th	11th	12th
Geoprocessing Tools				
Demonstrate ability to apply geoprocessing tools, such as merge, append, edit, buffer, intersect, dissolve, project and various others, to geospatial data.				
Basic Principles of Remote Sensing				
Knowledgeable in remote sensing techniques, applications, methods and the resultant imagery types, including satellite imagery and aerial photography.				
Digitizing & Geocoding				
Demonstrates the ability to digitize and manipulate points, lines and polygons and create new features and data.				
Geodatabase Functions				
Understands the process and applications of joining and relating geospatial data and relationship classes.				
Geospatial Modeling				
Identify the steps in creating a geospatial model and developing an efficient workflow.				
Global Positioning Systems (GPS)				
Demonstrate knowledge of the Global Positioning System and ability to use various handheld GPS devices. Manipulate GPS data and integrate into geopsatial analyses.				
Geospatial Career Opportunities				
Identify careers that use geospatial technology and develop a career plan to transition from high school to higher education and/or career path.				

Industry Certifications Attained	**Yes**
STARS Certification	

College Credits Attained		Yes
CCC Intro to GIS	TBD	
MVCC Intro to CCC	TBD	
Total		

Internships	Hours
Agency	
Agency	
Agency	

GEOSPATIAL TECHNOLOGY

EMPLOYABILITY PROFILE

Student Name: _____ School Year: _____ Absences: _____

ID Number: _____ Teacher: _____ Final Grade: _____

Career Ready Practices / Career Development Standards

STANDARDS DEFINITIONS

NA = Not Applicable 1 = Developing 2 = Basic 3 = Proficient 4 = Mastery

	9th	10th	11th	12th
Acts as a responsible citizen/employee				
Is on time and prepared, follows workplace policies, demonstrates reliability and dependability, is polite and courteous to adults and peers, demonstrates appreciation, and is reliable and consistent in their actions				
Applies appropriate academic and technical skills				
Demonstrates an understanding of the academic knowledge and skills associated with their trade. Technical skills are developed with academic competencies including English language arts and science that are integrated within the CTE program.				
Attends to personal health and financial well-being				
Recognizes the benefits of physical, mental, social, and financial well-being to the importance of that success in their career. Accepts criticism and works towards self-improvement targets on a consistent basis.				
Communicates clearly, effectively, and with reason.				
Is able to communicate both verbally and in writing to express ideas and obtain information. Uses appropriate vocabulary to share information both verbally and in writing as well. Demonstrates active listening skills and verbal communication.				
Makes appropriate decisions				
Considers the environmental, social, and economic impacts of their decisions. Understands that their actions and decisions will impact other people directly. Works independently and responds positively to new ideas and suggestions.				
Demonstrates creativity and innovative thought				
Demonstrates creativity and new thinking to solve workplace problems as encountered. Is creative, innovative, and is eager to explore new ways of addressing issues and challenges that are encountered.				
Employs valid and reliable research strategies				
Seeks information to develop a deeper understanding of issues encountered. Uses technology as a tool to research, organize, and evaluate information critically incompetently. Interprets information and draws conclusions based on best analysis.				
Uses critical thinking skills and demonstrates perseverance				
Demonstrates problem-solving skills through the use of creative thinking, decision-making, and adaptability. Effectively reasons through difficult situations, and makes decisions even when faced with complex or challenging problems.				

	9th	10th	11th	12th
Models integrity, ethical behavior, and leadership				
Is accountable and transparent in all of their work and assignments. Consistently exhibits ethical behavior, and commitment to completing tasks as assigned. Develops and demonstrates leadership skills, assuming responsibility readily.				
Develops and implements a Career Plan				
Develops a career plan based on understanding of their personal goals and the career pathways that aligns to them. Develops resumes, cover letters, and examples of best work to aid in the job seeking process and/or entrepreneurial goals.				
Uses technology to enhance productivity				
Demonstrates an understanding of the use of technology related to their career pathway. Continually develops their ability to adapt to changing work environments using technology, including new tools and their associated applications.				
Works as a productive and respectful team member				
Actively participates as a member of a team recognizing and appreciating others skills and abilities. Adds to the collective value of the team, and invigorates others to add to the collective efforts and goals.				
Demonstrates reliability and dependability				
Regardless of tasks given, demonstrates reliable and dependable behaviors to meet the expectations as defined. Attendance and levels of participation meet expectations consistently. Take on additional responsibilities without prompting.				
Arrives on time and is prepared to work				
Consistently demonstrates promptness, reliability, and commitment to reporting for classes, work site experiences, and other assignments as defined. Reports prepared for work or education as requirements dictate, meets attendance requirements.				
Demonstrates safe working habits				
When engaging in worksite situations or learning labs, uses tools and equipment safely, observes general safety guidelines for material handling, and meets the expectations of maintaining a safe work environment for others.				
Demonstrates problem solving skills				
Addresses problems encountered using effective problem-solving strategies. Works to define potential solutions to problems, identifies and implements the best solution based on the information gathered and their skill and knowledge.				

Earned Technical Endorsement on Diploma **YES** ☐ NO ☐

Industry Credential(s) Awarded See Reverse Side

Special Recognitions or Scholarships _____

Student Leadership Organization _____

Return to TOC