



CTE Approval Self-Study Report

Remotely Piloted Aircraft Systems

Table of Contents

Overview

[Self-Study Process](#)

[Occupation Research](#)

Curriculum

[Course Overview](#)

[RPAS 100 Syllabus & Curriculum and Academic/CFM/CDOS Crosswalks](#)

[RPAS 200 Syllabus & Curriculum and Academic/CFM/CDOS Crosswalks](#)

[RPAS 300 Syllabus & Curriculum and Academic/CFM/CDOS Crosswalks](#)

[RPAS 400 Syllabus & Curriculum and Academic/CFM/CDOS Crosswalks](#)

[Common Career and Technical Core \(CCTC\) Website](#)

Teacher Certification

Technical Assessment

[Technical Assessment Summary](#)

[Portfolio Requirements](#)

Post Secondary Articulation

Work-Based Learning

Employability Profile

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>

Remotely Piloted Aircraft Systems (Electro-mechanical Technicians)

Quick Facts:	
2015 Median Pay	\$55,610 per year \$26.74 per hour
Typical Entry-Level Education	Associate's degree
Work Experience in a Related Occupation	None
On-the-job Training	None
Number of Jobs, 2014	14,700
Job Outlook, 2014-24	1% (Little or no change)
Employment Change, 2014-24	100

What Electro-mechanical Technicians Do

Electro-mechanical technicians combine knowledge of mechanical technology with knowledge of electrical and electronic circuits. They operate, test, and maintain unmanned, automated, robotic, or electromechanical equipment.

Work Environment

Electro-mechanical technicians work closely with electrical and mechanical engineers. They work in many industrial environments, including energy, plastics, computer, and communications equipment manufacturing, and aerospace.

How to Become a Electro-mechanical Technician

Electro-mechanical technicians typically need either an associate's degree or a postsecondary certificate.

Pay

The median annual wage for electro-mechanical technicians was \$55,610 in May 2016.

Job Outlook

Employment of electro-mechanical technicians is projected to show little or no change from 2014 to 2024. Electro-mechanical technicians are generalists in technology, and their broad skill set will help sustain demand for their services.

Related Occupations

Occupational Title	SOC Code	Employment, 2014	Projected Employment, 2024	Change, 2014-24	
				Percent	Numeric
Surveying and mapping technicians	17-3031	57,300	52,900	-8	-4,300
Electrical and electronics engineering technicians	17-3023	139,400	136,600	-2	-2,800
Mechanical engineering technicians	17-3027	48,400	49,300	2	900
Commercial pilots	53-2012	43,500	48,000	10	4,500

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2016-17 Edition*, Electro-mechanical Technicians, on the Internet at <https://www.bls.gov/ooh/architecture-and-engineering/electro-mechanical-technicians.htm> (visited September 08, 2017).

New York Employment Demand Profile: **Remotely Piloted Aircraft Systems**

Source: Labor Insight Jobs (Burning Glass Technologies), Summary Demand and Requirements Table by Occupation, New York state data, , Sep. 01, 2016 - Aug. 31, 2017.

Category:		Demand and Employment				Salary		Education level based on posting requirements (*excluding NA)						Education level of employed individuals		
Source:		Burning Glass	BLS/OES, 2016	BGT Projections		Burning Glass	BLS/OES, 2016	Burning Glass						ACS, 2014		
SOC Code (ONET-6)	Occupation Title	Number of Job Postings	Number Employed 2016	% Change in Employment, 2015-2016	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 Master's Degree*	% Requiring Doctoral Degree*	% with Unspecified Education	% with a high school diploma or less	% with Some College or an Associate's	% with a Bachelor's or higher
17-3023	Electrical And Electronics Engineering Technicians	1,086	5,880	2%	5.3%	\$51,981	\$63,620	44%	50%	38%	5%	3%	33%	26%	56%	17%
17-3027	Mechanical Engineering Technicians	285	1,560	-16%	11.9%	\$48,269	\$60,340	35%	50%	41%	15%	11%	35%	26%	56%	17%
17-3024	Electro-Mechanical Technicians	28	530	1%	N/A	N/A	\$63,450	72%	39%	33%	0%	0%	36%	26%	56%	17%
53-2012	Commercial Pilots	67	1,280	12%	N/A	N/A	\$96,120	25%	39%	93%	11%	0%	34%	5%	20%	75%

*This report provides information on both the preferred and minimum/required education levels for job postings. For this reason, a job posting may be counted in more than one of the educational categories shown in the table below. Please also note that Bureau of Labor Statistics (BLS) data is only available at the 6-digit SOC code level.

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>



Remotely Piloted Aircraft Systems

A Drone, also known as a Remotely Piloted Aircraft System (RPAS), is an unmanned aircraft that is flown remotely. A drone can range from small personal aircrafts that can be lifted by one person and cost a few hundred dollars, to military surveillance and attack aircrafts that cost over \$21 million dollars.

Currently, the Federal Aviation Administration (FAA) allows for commercial use of drones. However, the FAA has released regulations that are expected to allow for much broader commercial use and will require pilots using unmanned aerial vehicles for commercial purposes to obtain certification of training or competence. Anticipating the commercial demand for drone training, this program at the Public Service Leadership Academy at Fowler will provide skills on piloting, engineering, and repairing drones.

The commercial and military impact RPAS's will have in the coming years is very significant, expected to create more than 100,000 new jobs by 2025, with an economic impact of \$82 billion.

Career Opportunities:

Military Drone Pilot, Disaster Relief, Search and Rescue, Law Enforcement, Border Patrol, Oil and Gas Operations, Seismic Study, Agriculture, Forestry, Engineering, Computer Science, Commercial Contractors and Film. Companies that hire Drone Engineers and Pilots include aerospace and defense companies Northrop Grumman and Lockheed Martin and aircraft manufacturer Boeing.

Course of Study Remotely Piloted Aircraft Systems

9th Grade

- RPAS 100
(1 Credit CTE)

10th Grade

- RPAS 200
(1 Credit CTE)

11th Grade

- RPAS 300 (1 Credit CTE)
- RPAS CTE Integrated Math CTE200 (1 Credit)

12th Grade

- RPAS 400 (1 Credit CTE)
- RPAS CTE Integrated ELA CTE400 (1 Credit)

DISTRICT REQUIREMENTS

- Students must complete RPAS 100, 200, 300 to challenge the course approved technical assessment
- Student will have earned the 11th grade integrated CTE math credit upon successful completion of the Drone Technology 100, and 200.
- Students will have earned the 12th grade ELA credit upon successful completion of RPAS 100, 200, and 300.
- Student will receive the CTE Endorsement upon successful completion of the complete Drone Technology Program, passage of the prescribed technical assessment and completion of a commencement level project.

[Return to TOC](#)

Syracuse City School District
Career and Technical Education Programs
Course Syllabus
P-TECH RPAS 100: Remote Pilot Aerial Systems 100



Course Description

Students will develop critical and analytical thinking, troubleshooting and problem solving skills through hands-on activities in this project-based curriculum. This course will introduce students to the fundamentals of Remote Pilot Aerial Systems. Through hands on experience, students will learn the basics of electricity, programming, hardware, and physics. This course will give students a general overview of the Remote Pilot Aerial Systems sequence. Students will have the opportunity to earn integrated math, ELA and college credits upon successful completion of the program.

Course Objectives

1. Students will understand basic robotics and programming and apply them to given challenges.
2. Students will understand basic flight planning within the FAA regulations.
3. Students will understand weather that allow unmanned aviation systems to fly.
4. Students will know the career pathways available to RPAS technology.

Integrated Academics

N/A

Equipment and Supplies

- School will provide: All necessary lab and classroom equipment.
- Student will provide: N/A

Textbook

N/A

Grading

- 15% Class attendance/ Participation
- 10% Homework
- 25% Quiz
- 50% Projects

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 exploratory weeks.
Unexcused absences on quizzes days will count as a zero.

Additional Course Policies

Students are required to follow all safety procedures.

Course Calendar

Quarter	Units of Study
1	<ul style="list-style-type: none">• What is Remote Pilot Aerial Systems technology?• Careers• Technical Communication• Robotics
2	<ul style="list-style-type: none">• Weather• Geography/Navigation• Crew Management
3	<ul style="list-style-type: none">• Flight Planning• FAA Operations• Remote Pilot Aerial Systems Components
4	<ul style="list-style-type: none">• Aircraft Performance• RPAS Laws• Programming

Syracuse City School District
Career and Technical Education Program
Scope and Sequence
RPAS 100: Unmanned Aerial Systems 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, Math, Science
Week 1 Course Expectations and Grading Introduction to RPAS Technology	<ul style="list-style-type: none"> What is RPAS technology? What are RPAS applications and related technology? 	<ul style="list-style-type: none"> Define RPAS and FAA List applications of RPAS in various industries Describe selected RPAS technologies 	<ul style="list-style-type: none"> Research on RPAS applications Written assignment on RPAS applications with sources PowerPoint Activity PowerPoint Presentations “Drones Take Off” – reading and response papers 	Career Ready Practices CRP 4,7,10,11	Literacy RST.9-10.1,4,7 WHST9-10.7,8
				Cluster Standards TD 1.2; ST 3,4,5	ELA RI.9-10.1 W.9-10.1,2,3,6 SL.9-10.4,5
				Pathway Standards ST-SM 1,2	Math
				Industry Standards	Science (NGSS)
Week 2 Career Opportunities	<ul style="list-style-type: none"> What career opportunities are available in drone/RPAS technology? What education is required to work in an RPAS related career? 	<ul style="list-style-type: none"> Explore various careers related to drone/RPAS technology Identify required education/training to enter RPAS-related fields Explore post-secondary programs in drone/RPAS technology Analyze a job posting for a RPAS career 	<ul style="list-style-type: none"> Student research on drone/RPAS technology careers Career Search Presentations-Rubric-graded Monday “Ted Talks” videos and reaction summaries 	Career Ready Practices CRP 4,7,10,11	Literacy RST.9-10.1,4,7 WHST.9-10.7,8
				Cluster Standards TD 6.1;6.2 GV 5.2 ST 3,4,5	ELA RI.9-10.1 W.9-10.2,3 SL.9-10.1,4,5
				Pathway Standards ST-SM 3 ST-ET 6	Math
				Industry Standards	Science (NGSS)
Week 3-4 Technical Communication	<ul style="list-style-type: none"> How do engineers communicate? What is the engineering design process? What is a patent and what evidence/information is used to secure a patent? 	<ul style="list-style-type: none"> Develop and maintain a technical journal for robotics utilizing the vocabulary of the career area Describe the engineering design process Students will be able to use lettering and sketching to communicate clearly 	<ul style="list-style-type: none"> Daily reflective writing assignments Technical journal assessments-Rubric graded Vocabulary quiz Monday “Ted Talks” videos and reaction summaries FEMA: IS-242.B: Effective Communication 	Career Ready Practices CRP2,4,8,7,10,11	Literacy RST.9-10.1,4,7 WHST.9-10.7,8
				Cluster Standards TD 6	ELA W.9-10.2,3 SL.9-10.1
				Pathway Standards TD-MTN 1.2	Math
				Industry Standards	Science (NGSS)

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, Math, Science
Week 5-9 Robotics/ Mechanics	<ul style="list-style-type: none"> • What mechanisms are used to move automated systems? • How is energy manipulated? 	<ul style="list-style-type: none"> • Describe the mechanisms used to move automated systems • Calculate mechanical advantages and gear ratios for given systems • Solve a given problem through the development of an autonomous and driver controlled robot 	<ul style="list-style-type: none"> • Daily reflective writing assignments • Technical journal assessment-Rubric graded • Robotics engineering challenge • Monday “Ted Talks” videos and reaction summaries • Quiz on gear ratios 	Career Ready Practices CRP 2,6,8	Literacy RST.9-10.1,4,7 WHST.9-10.7,8
				Cluster Standards ST 1,2,4,6	ELA W.9-10.2,3 SL.9-10.1
				Pathway Standards ST-SM 1,2, ST-ET 1,2,3,4,5,	Math
				Industry Standards	Science (NGSS)
Week 10-11 Introduction to Programming	<ul style="list-style-type: none"> • How does programming control our machines? • How do machines understand directions? 	<ul style="list-style-type: none"> • Understand the logic and sequence in programming • Discussion on programming controlling our machines • Write systematic directions • Locate errors in programs 	<ul style="list-style-type: none"> • Daily reflective writing assignments • Technical journal Assessment-Rubric graded • Rubric Graded Interview on engineering design process • Marked up programming of robot designs • Programming Challenge Project • Monday “Ted Talks” videos and reaction summaries 	Career Ready Practices CRP 2,6,8	Literacy RST.9-10.1,4,7 WHST.9-10.7,8
				Cluster Standards ST 1,2,4,6	ELA W.9-10.2,3 SL.9-10.1
				Pathway Standards ST-SM 1,2, ST-ET 1,2,3,4,5,	Math
				Industry Standards	Science (NGSS)
Week 12 Weather Basics	<ul style="list-style-type: none"> • How does weather form? • How does weather affect RPAS operations? 	<ul style="list-style-type: none"> • Examine the causes of a variety of weather phenomenon • Explain the effects of weather on RPAS flight and operation 	<ul style="list-style-type: none"> • Daily reflective writing assignments • Summative robotics reflection essay • Weather station packets • Reading and response assignments • Monday “Ted Talks” videos and reaction summaries 	Career Ready Practices CRP 2,5,11	Literacy RST.9-10.1,4,7
				Cluster Standards ST 1,2,4,6	ELA RI.9-10.1 W.9-10.2,3 SL.9-10.1
				Pathway Standards ST-SM 3	Math
				Industry Standards	Science (NGSS)
Week 13-15	<ul style="list-style-type: none"> • How do natural 	<ul style="list-style-type: none"> • Describe how natural 	<ul style="list-style-type: none"> • Summative exam 	Career Ready Practices CRP 2,5,11	Literacy RST.9-10.1,4,7

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, Math, Science
Geography/ Navigation	<ul style="list-style-type: none"> formations affect flight? What information can be gathered by RPAS about geographic data? 	<ul style="list-style-type: none"> formations affect flight Plan navigation from given geographic data 	<ul style="list-style-type: none"> Rubric evaluated project-PowerPoint Activity Monday "Ted Talks" videos and reaction summaries 		
				Cluster Standards ST 1,2,4,6	ELA W.9-10.2 SL.9-10.1
				Pathway Standards ST-SM 3	Math
				Industry Standards	Science (NGSS)
Week 16-18 Crew Resource management Introduction to Portfolios	<ul style="list-style-type: none"> What roles are needed for a successful RPAS mission? What are the responsibilities of the PIC and VO? 	<ul style="list-style-type: none"> Discuss the roles and responsibilities of the RPAS crew Create a plan/strategy to foster leadership and continuous self-improvement Act on the responsibilities of assigned roles 	<ul style="list-style-type: none"> Daily reflective writing assignments Students create a rubric/guide to self-assess their behavior Student log of time spent acting in the different RPAS roles Planning and organizing the career portfolio Initial portfolio entries Monday "Ted Talks" videos and reaction summaries 	Career Ready Practices CRP 1,3,9,12	Literacy RST.9-10.1,4,7 WHST.9-10.7,8
				Cluster Standards ST 1,2,4,6 GV 2	ELA W.9-10.2,3
				Pathway Standards ST-ET 1,3,4	Math
				Industry Standards	Science (NGSS)
Week 19-21 Flight Planning	<ul style="list-style-type: none"> What actions should be taken to ensure flight safety? How is a mission planned? In the event of an emergency, what actions must be taken? 	<ul style="list-style-type: none"> Create a pre-flight checklist that covers needed role assignment and aircraft inspection Create and be able to practice in-flight emergency procedures 	<ul style="list-style-type: none"> Rubric based evaluation of student-created pre-flight checklist Rubric rated analysis of in-flight emergency procedures Monday "Ted Talks" videos and reaction summaries 	Career Ready Practices CRP 1,3,4,9,12	Literacy RST.9-10.1,4,7 WHST.9-10.7,8
				Cluster Standards GV 3 ST 1,2,4,6	ELA W.9-10.2,3
				Pathway Standards ST-ET 1,3,4	Math
				Industry Standards	Science (NGSS)
Week 22-25 FAA Operations	<ul style="list-style-type: none"> Who is the FAA? What are the classifications of FAA 	<ul style="list-style-type: none"> Detail the role of the FAA Explain FAA regulations about airspace as it governs RPAS 	<ul style="list-style-type: none"> Daily reflective writing assignments Summative exam 	Career Ready Practices CRP 1,3,9,12	Literacy RST.9-10.1,4,7 WHST.9-10.7,8

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, Math, Science
	<p>Airspace?</p> <ul style="list-style-type: none"> What are the operation requirements within FAA controlled Airspace? 	<ul style="list-style-type: none"> Cite regulations for each classification of airspace Decipher Notices to Airmen (NOTAMs) 	<ul style="list-style-type: none"> Create flight plans for areas detailing rationale given NOTAMs and identification of airspace classifications Monday "Ted Talks" videos and reaction summaries 	<p>Cluster Standards GV 1,2</p> <p>Pathway Standards ST-ET 1,3,4 GV-GOV 2</p> <p>Industry Standards</p>	<p>ELA W.9-10.2,3</p> <p>Math</p> <p>Science (NGSS)</p>
<p>Week 26-32</p> <p>Electromechanical</p>	<ul style="list-style-type: none"> What components are used in an RPAS? How are the mechanical components controlled in an RPAS? 	<ul style="list-style-type: none"> Identify the components in an RPAS Diagram the parts of an RPAS and detail how they interact Distinguish the functional differences between a fixed wing and a multi-copter design and operation 	<ul style="list-style-type: none"> Daily reflective writing assignments Summative assignment Rubric graded project Monday "Ted Talks" videos and reaction summaries 	<p>Career Ready Practices CRP 2,6,8</p> <p>Cluster Standards ST 1,3,6</p> <p>Pathway Standards ST-ET 1,3,4</p> <p>Industry Standards</p>	<p>Literacy</p> <p>ELA W.9-10.2,3</p> <p>Math</p> <p>Science (NGSS)</p>
<p>Week 33-35</p> <p>Aircraft Performance</p>	<ul style="list-style-type: none"> What affects aircraft performance? What affects the PIC's performance? 	<ul style="list-style-type: none"> Explain the environmental factors that affect aircraft performance Describe the human factors that increase, or decrease aircraft performance 	<ul style="list-style-type: none"> Daily reflective writing assignments Rubric evaluated presentation FAA study guide reading Monday "Ted Talks" videos and reaction summaries 	<p>Career Ready Practices CRP 2, 6, 8</p> <p>Cluster Standards ST 1,3,6</p> <p>Pathway Standards ST-ET 1,3,4</p> <p>Industry Standards</p>	<p>Literacy RST.9-10.1,4,7 WHST.9-10.7,8</p> <p>ELA RI.9-10.1 W.9-10.3</p> <p>Math</p> <p>Science (NGSS)</p>
<p>Week 35-40</p> <p>RPAS Ethics</p>	<ul style="list-style-type: none"> What are the ethical concerns with RPAS applications? What are the potential mal-uses of RPAS technology? 	<ul style="list-style-type: none"> Discuss current events and debate the ethics of various RPAS applications Distinguish between ethical and unethical decision-making and state possible outcomes 	<ul style="list-style-type: none"> Daily reflective writing assignments Students present in-class debate News Article Submission/ Discussions 	<p>Career Ready Practices CRP 1,2,4,5,8,9</p> <p>Cluster Standards GV 1,2 ST 1,3,6</p>	<p>Literacy RST.9-10.1,4,7 WHST.9-10.7,8</p> <p>ELA RI.9-10.1,8 W.9-10.2,3 SL.9-10.1,4,5</p>

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, Math, Science
	<ul style="list-style-type: none"> How might unethical practices harm individuals/society and negatively impact the use of drones/RPAS? 	for society	<ul style="list-style-type: none"> Monday "Ted Talks" videos and reaction summaries 	Pathway Standards ST-ET 1,3,4 GV-GOV 2,3,4	Math
				Industry Standards	Science (NGSS)

Syracuse City School District
Career and Technical Educational Programs
Course Syllabus
P-TECH RPAS 200: Remote Pilot Aerial Systems 200



Course Description

This course will continue students' study of Remote Pilot Aerial Systems. Through hands on experience, students will learn the basics CADD, GIS, and FAA weather notifications. This course will give students a background in design, navigations, and alert interpretations. Students will have the opportunity to earn integrated math, ELA and college credits upon successful completion of the program.

Course Objectives

1. Students will understand basic sketching and CADD.
2. Students will understand how to read and produce a map.
3. Students will understand the abbreviations used in METARs, NOTAMs, and TAFs.
4. Students will understand aeronautical decision making.

Integrated Academics

N/A

Equipment and Supplies

- School will provide: All necessary lab and classroom equipment.
- Student will provide: N/A

Textbook

N/A

Grading

15%	Class attendance/ Participation
10%	Homework
25%	Quiz
50%	Projects

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 exploratory weeks. Unexcused absences on quizzes days will count as a zero.

Additional Course Policies

Students are required to follow all safety procedures.

Course Calendar

Quarter	Units of Study
1	<ul style="list-style-type: none">• Sketching• 2D CADD
2	<ul style="list-style-type: none">• 3D CADD• Assembly Drawings
3	<ul style="list-style-type: none">• Map Reading• GIS
4	<ul style="list-style-type: none">• Weather and climate notifications• METAR, NOTAM, and TAF reading

Syracuse City School District
Career and Technical Education Program
Scope and Sequence
RPAS 200: Remotely Piloted Aviation Systems 200



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 Math, Science
Weeks 1-3 Sketching	<ul style="list-style-type: none"> How do we visually communicate ideas with accuracy? How can 3D space be seen in 2D space? 	<ul style="list-style-type: none"> Show objects using a variety of standard views Illustrate relationships between parts and whole objects Create depth to show 3D space in sketching Label sketches for clear communication 	<ul style="list-style-type: none"> TED Talks and Reflections on Mondays Sketch challenges Revisit/continuation of portfolios – Drafting entries 	Career Ready Practices CRP 2,4,6,8	Literacy
				Cluster Standards ST 1,6	ELA
				Pathway Standards ST-SM 2 ST-ET 1,2,4	Math G-GMD.4 G-MG.1 G-MG.3
				Industry Standards	Science (NGSS)
Weeks 4-5 Introduction to Computer-Aided Drafting & Design (CADD)	<ul style="list-style-type: none"> What is CADD? How do you create shapes and lines in CADD? 	<ul style="list-style-type: none"> Create shapes and lines in CADD Create a title block Identify the necessary file types and explain their uses 	<ul style="list-style-type: none"> CADD Applications Produce title block TED Talks and Reflections on Mondays 	Career Ready Practices CRP 2,4,6,8,11	Literacy
				Cluster Standards ST 1,6	ELA W.9-10.2
				Pathway Standards ST-SM 2 ST-ET 1,2,4	Math G-GMD.4 G-MG.1 G-MG.3
				Industry Standards	Science (NGSS)
Weeks 6-10 2-Dimensional Drawings	<ul style="list-style-type: none"> What tools are available in CADD? How does the CADD tools assist drawing work? 	<ul style="list-style-type: none"> Use a variety of tools to create specific drawings Determine when to use tools for more efficient drawings 	<ul style="list-style-type: none"> 2D drawing challenges to replicate example or produce drawings from given object Rubric Graded drafting Portfolio TED Talks and Reflections on 	Career Ready Practices CRP 2,4,6,8,11	Literacy
				Cluster Standards ST 1,2,6	ELA W.9-10.2

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 Math, Science
			Mondays	Pathway Standards ST-SM 2 ST-ET 1,2,4	Math G-GMD.4 G-MG.1 G-MG.3
				Industry Standards	Science (NGSS)
Weeks 11-15 3-Dimensional Drawings	<ul style="list-style-type: none"> • What is the z-axis? • Can you describe some of the advantages of using 3D images? • How do we work in 3D? 	<ul style="list-style-type: none"> • Create 3D images of designed product • Render objects to create appearance of materials 	<ul style="list-style-type: none"> • 2D drawing project challenges to replicate example or produce drawings from given object • Rubric Graded drafting Portfolio • TED Talks and Reflections on Mondays • Reflective journal entries 	Career Ready Practices CRP 2,4,6,8,11	Literacy
				Cluster Standards ST 1,2,6	ELA W.9-10.2,3
				Pathway Standards ST-SM 2 ST-ET 1,2,4	Math G-GMD.4 G-MG.1 G-MG.3
				Industry Standards	Science (NGSS)
Weeks 16-20 Assembly	<ul style="list-style-type: none"> • How do we create parts of a whole? • How are parts shown in relation to each other? 	<ul style="list-style-type: none"> • Create assemblies using constraints • Create explosion views of products 	<ul style="list-style-type: none"> • Reverse engineering challenge • Rubric graded portfolio • TED Talks and Reflections on Mondays • Reflective journal entries 	Career Ready Practices CRP 2,4,6,8,11	Literacy WHST.9-10.2
				Cluster Standards ST 1,2,6	ELA W.9-10.2,3
				Pathway Standards ST-SM 2 ST-ET 1,2,4	Math G-GMD.4 G-MG.1 G-MG.3
				Industry Standards	Science (NGSS)
Week 21 Map Reading Basics	<ul style="list-style-type: none"> • What ways do maps provide information to the user? • How do map reading skills relate to flight planning? 	<ul style="list-style-type: none"> • Plan a route between given points on a map • Describe the location of a point on a map using latitude and longitude 	<ul style="list-style-type: none"> • Flight plan creation • Navigation/GIS lab Field trip • Reading and interpreting symbols • TED Talks and Reflections on Mondays • Reflective journal entries 	Career Ready Practices CRP 2,4,7,11	Literacy RST.9-10.1,4,7 WHST.9-10.2,4,6,7,9
				Cluster Standards ST 2,4,6 GV 1,3,4 TD 2,4,5,6	ELA W.9-10.2,3
				Pathway Standards ST-ET 1,2,3,5	Math

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 Math, Science
				Industry Standards	Science (NGSS)
Weeks 22-23 Symbolism and Flight Maps	<ul style="list-style-type: none"> What information can we get from a navigation/Flight map? How can symbols further define the information on a map? 	<ul style="list-style-type: none"> Explain the symbols on a flight map Make flight decisions based on given maps and symbols 	<ul style="list-style-type: none"> Map reading Test Flight plan assessment Navigation/GIS Lab Field trip TED Talks and Reflections on Mondays 	Career Ready Practices CRP 2,4,7,11	Literacy RST.9-10.1,4,7
				Cluster Standards ST 2,4,5,6 GV 1,3,4 TD 2,4,5,6	ELA W.9-10.2
				Pathway Standards ST-ET 1,2,3,5	Math
				Industry Standards	Science (NGSS)
Weeks 24-34 Geographic Information System (GIS) Basics	<ul style="list-style-type: none"> What is GIS? How are RPAS applied within GIS? 	<ul style="list-style-type: none"> Define GIS and discuss how it is used in the RPAS field Create an accurate map with details captured by aerial imagery 	<ul style="list-style-type: none"> Application of GIS principles to create a sample map Map creation using student-gathered data Mapping field trip lab TED Talks and Reflections on Mondays 	Career Ready Practices CRP 2,4,7,11	Literacy RST.9-10.14,7
				Cluster Standards ST 2,4,5,6 TD 2,4,5,6	ELA RI.9-10.1 W.9-10.2
				Pathway Standards ST-ET 1,2,3,5	Math
				Industry Standards	Science (NGSS)
Week 35 Weather and Climate Effects on Flight Path Creation	<ul style="list-style-type: none"> Why does weather occur? How does weather affect RPAS operations? 	<ul style="list-style-type: none"> Identify cumuliform, stratiform, and standing lenticular auto cumulous clouds Make decisions for flight planning based on given weather information 	<ul style="list-style-type: none"> Flight path decisions and creation based on weather conditions Weather report section of flight log TED Talks and Reflections on Mondays 	Career Ready Practices CRP 2,4,7,11	Literacy RST.9-10.1,2,7 WHST.9-10.2,4,6,7,9
				Cluster Standards ST 2,4,5,6	ELA RI.9-10.1 W.9-10.2,3
				Pathway Standards ST-SM 1,2,3 ST-ET 1,2,3,5	Math N-Q.3
				Industry Standards	Science (NGSS)

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 Math, Science
Weeks 36-37 Meteorological Aerodrome Report (METAR)s, NOTAMs and Terminal Aerodrome Forecast (TAF)s	<ul style="list-style-type: none"> How are weather and weather advisories communicated? 	<ul style="list-style-type: none"> Make decisions for flight planning based on given METARs (Meteorological Aerodrome Report), TAFs (Terminal Aerodrome Forecast), and NOTAMS (Notice to Airmen) Describe the weather presented in a METAR 	<ul style="list-style-type: none"> Decode METARs and TAFs on exam and when making pre-flight decisions Weather report section of flight log-continued Give flight recommendations based on METARs, TAFs, and NOTAMs TED Talks and Reflections on Mondays 	Career Ready Practices CRP 2,4,7,11	Literacy RST.9-10.4,7
				Cluster Standards ST2,4,5,6	ELA RI.9-10.1 W.9-10.3 SL.9-10.1,4
				Pathway Standards ST-SM 1,2,3 ST-ET 1,2,3,5	Math N-Q.3
				Industry Standards	Science (NGSS)
Weeks 38-40 Critical Thinking, Problem Solving & Decision Making	<ul style="list-style-type: none"> What are the hazards and risks of RPAS? How do people influence the risks associated with RPAS flights? 	<ul style="list-style-type: none"> Assess risks in presented scenarios and in-field practice Describe how to mitigate risks Use a pre-flight checklist to assess risks Vision and flight 	<ul style="list-style-type: none"> Presentation on risk management Reading and Interpreting FEMA guides: <ul style="list-style-type: none"> FEMA: IS-240: Leadership and Influence FEMA: IS-241.B Decision Making and Problem Solving FEMA: IS-454: Fundamentals of Risk Management 	Career Ready Practices CRP 2,3,4,7,11	Literacy RST.9-10.1,2,7 WHST.9-10.2,4,6,7
				Cluster Standards ST 2,4,5,6 TD 2,4,5,6	ELA RI.9-10.1 W.9-10.1,2,3,6 SL.9-10.4,5
				Pathway Standards TD-LOG 1,2 TD-OPS 1,3	Math
				Industry Standards	Science (NGSS)

Syracuse City School District
Career Technical Education Programs
Course Syllabus
P-TECH RPAS 300: Remote Pilot Aerial Systems 300



Course Description

This course will continue students' study of Remote Pilot Aerial Systems. This course will focus on aerial imagery and FAA part 107 exam prep. Students will learn photography, videography, physics, and general airport operations. Students will have the opportunity to earn integrated math, ELA and college credits upon successful completion of the program.

Course Objectives

1. Students will understand basic photography and videography.
2. Students will understand how chemicals affect the human body and its ability to operate a RPAS.
3. Students will understand physics of flight, signal transmission, and basic electronics.
4. Students will understand airport operations and its effects on UAS operations.

Integrated Academics

N/A

Equipment and Supplies

- School will provide: All necessary lab and classroom equipment.
- Student will provide: N/A

Textbook

N/A

Grading

15%	Class attendance/ Participation
10%	Homework
25%	Quiz
50%	Projects

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 exploratory weeks.
Unexcused absences on quizzes days will count as a zero.

Additional Course Policies

Students are required to follow all safety procedures.

Course Calendar

Quarter	Units of Study
1	<ul style="list-style-type: none">• Lights, lenses, and optics• Image manipulation• Video production
2	<ul style="list-style-type: none">• Composite video• Physiology and flight• Physics of flight
3	<ul style="list-style-type: none">• Waves• Electronics• Airport operations
4	<ul style="list-style-type: none">• Final Remote Pilot's license review

Syracuse City School District
Career and Technical Education Program
Scope and Sequence
RPAS 300: Remotely Piloted Aviation Systems 300



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 Math, Science
Weeks 1-2 Lenses, Light, and Optics	<ul style="list-style-type: none"> • How are images captured? • How does the device influence the image captured? • What information is gathered by RPAS 	<ul style="list-style-type: none"> • Explain the impact of lenses on the image capture process • Judge the use of different equipment for a variety of applications and explain the rationale for each 	<ul style="list-style-type: none"> • Research and presentation on lenses and there applications • Presentations on RPAS data/information collection • Technical journal vocabulary 	Career Ready Practices CRP 2,4,7,11	Literacy RST.11-12.1,2,7 WHST.11-12.2,4,6,7,9
				Cluster Standards ST 2,4	ELA RI.11-12.1 W.11-12.2,3,5 SL.11-12.1,6
				Pathway Standards ST-SM 1,2,3	Math
				Industry Standards	Science (NGSS)
Week 3 Raster VS Vector	<ul style="list-style-type: none"> • What makes up an image? • What are different file types used and what does that mean? 	<ul style="list-style-type: none"> • Distinguish the differences between raster and vector images • Select the type of image file to use in different situations • Manage files utilizing folder structure, filing naming, and correct file types 	<ul style="list-style-type: none"> • Quiz • Using correct file types for media image projects • File management activities • Technical vocabulary 	Career Ready Practices CRP 2,4,7,11	Literacy WHST.11-12.2,4
				Cluster Standards ST 2,4	ELA
				Pathway Standards ST-SM 1,2,3	Math
				Industry Standards	Science
Weeks 4-7 Introduction to Adobe Photoshop	<ul style="list-style-type: none"> • How can images be manipulated? • What is the process of photo stitching? • How do views change with this process? • How is Adobe Photoshop used to 	<ul style="list-style-type: none"> • Read and interpret technical information to follow a sequence of steps for manipulating images • Create new images from existing images • Recommend an order of operation to create an image 	<ul style="list-style-type: none"> • Rubric-graded photo manipulation • Photo-stitching projects • Photo critiquing activities 	Career Ready Practices CRP 2,4,7,8,11	Literacy RST.11-12.3,4
				Cluster Standards ST 2,4	ELA
				Pathway Standards ST-ET 2	Math

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 Math, Science
	manipulate images?	<ul style="list-style-type: none"> Critique photo manipulations 		Industry Standards	Science
Weeks 8-10 Working in Video Layers and Editing	<ul style="list-style-type: none"> What are video file types and how are the types determined? In what ways can video be edited? 	<ul style="list-style-type: none"> Describe the application of given video file types Read and follow directions to create a video using trimming, titles, and AV layers 	<ul style="list-style-type: none"> Rubric- graded video production Rubric-graded videos communicating information gathered through RPAS operations 	Career Ready Practices CRP 2,4,7,11	Literacy RST.11-12.3,4
				Cluster Standards ST 2,4	ELA SL.11-12.1
				Pathway Standards ST-ET 2	Math
				Industry Standards	Science
Weeks 11-15 Special FX	<ul style="list-style-type: none"> How can special FX be applied to RPAS applications? What are video layers? How can video layers be blended? 	<ul style="list-style-type: none"> Understand and apply process to create a video utilizing, chroma key, key frames, and scale/rotation Bring in files to overlay on video for communicating information 	<ul style="list-style-type: none"> Rubric-graded video production Technical journal writing 	Career Ready Practices CRP 2,4,7,11	Literacy RST.11-12.3,4
				Cluster Standards ST 2,4	ELA W.11-12.2
				Pathway Standards ST-ET 2	Math
				Industry Standards	Science
Week 16 Physiology and Flight	<ul style="list-style-type: none"> How is one's physical ability related to flight safety? Can you identify physical conditions that might influence flight safety? When is it not safe to fly? 	<ul style="list-style-type: none"> Discuss the effects of drugs on a person's decision making Identify and describe the effects of sleep and physiology on flight Describe correlations between being physically compromised on safety, financial costs and costs to RPAS applications 	<ul style="list-style-type: none"> Research papers and graded presentation on compromised physical abilities Quiz on drugs and physiology 	Career Ready Practices CRP 1,2,3,12	Literacy WHST.11-12.2,4
				Cluster Standards ST 3,5	ELA RI.11-12.1 W.11-12.2,3,5 SL.11-12.5,6
				Pathway Standards ST-SM 1,2 ST-ET 1,5	Math
				Industry Standards	Science (NGSS)

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 Math, Science
Weeks 17-20 Physics of Flight	<ul style="list-style-type: none"> • What factors increase an aerial system's ability to fly? • What affects the way an RPAS flies? • What information can you gather to support you're your predictions about increasing an RPAS ability to fly? 	<ul style="list-style-type: none"> • Explain the Bernoulli's principle and its effects on flight • Define drag and the effects on flight • Use a given chart to recommend RPAS loading and angle of attack 	<ul style="list-style-type: none"> • Quiz on aerodynamics and lift • Technical journal writings 	Career Ready Practices CRP 2	Literacy WHST.11-12.2,4
				Cluster Standards ST 2,5,6	ELA W.11-12.2
				Pathway Standards ST-SM 1,2 ST-ET 1,5	Math G-SRT.6 G-SRT.8 A-CED.1 A-REI.6
				Industry Standards	Science (NGSS)
Week 21 Waves	<ul style="list-style-type: none"> • What are waves and what are their parts? • How are signals sent through different media? 	<ul style="list-style-type: none"> • Identify the parts of waves • Explain how waves interact with each other • Identify types of waves • Summarize the way signals are sent through various media 	<ul style="list-style-type: none"> • Quiz on waves 	Career Ready Practices CRP 2	Literacy
				Cluster Standards ST 6	ELA
				Pathway Standards ST-SM 1,2 ST-ET 1,5	Math A-CED.1
				Industry Standards	Science (NGSS)
Weeks 22-24 Electronics	<ul style="list-style-type: none"> • What is electricity? • How do different configurations of components affect the control of electricity? 	<ul style="list-style-type: none"> • Describe the relationship between volts, amps, and ohms • Create circuits to perform given tasks based on required voltage, current, and resistance 	<ul style="list-style-type: none"> • Electric circuit design challenges – Group projects • Quiz on ohm's law 	Career Ready Practices CRP 2	Literacy RST.11-12.3,4
				Cluster Standards ST 6	ELA
				Pathway Standards ST-SM 1,2 ST-ET 1,5	Math A-CED.1
				Industry Standards	Science (NGSS)
Weeks 25-27 Airport Operation	<ul style="list-style-type: none"> • How do airports work? • What are the types of airports? 	<ul style="list-style-type: none"> • Describe flight patterns around airports • Define the types of airports 	<ul style="list-style-type: none"> • Rubric-graded presentation on airports • Quiz 	Career Ready Practices CRP 1,2,4,11	Literacy RST.11-12.3,4 WHST.11-12.2,4

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 Math, Science
		and how the airspace around them operates	<ul style="list-style-type: none"> Jigsaw activities on airport operations 	Cluster Standards ST 3,4,6 GV 3 Pathway Standards GV-MGT 1 Industry Standards	ELA RI.11-12.1 SL.11-12.4 Math Science (NGSS)
Weeks 28-30 Review Airspace Classifications and Flight Restrictions	<ul style="list-style-type: none"> How are airports classified, and how does that affect RPAS usage? How are flight restrictions communicated? 	<ul style="list-style-type: none"> Read and interpret air charts to determine restrictions and landmarks Explain how airport flight patterns operate 	<ul style="list-style-type: none"> Quiz on chart reading, NOTAMs, METARS, and TAFs 	Career Ready Practices CRP 1,2,4,11 Cluster Standards ST 3,4,6 GV 3 Pathway Standards GV-MGT 1 Industry Standards	Literacy RST.11-12.4 ELA Math Science (NGSS)
Week 31 Review Aviation Weather	<ul style="list-style-type: none"> How does weather form? Can you identify the different types of clouds and the weather conditions they indicate? 	<ul style="list-style-type: none"> Identify clouds and weather from both ground and satellites views Explain the causes of weather 	<ul style="list-style-type: none"> Exam on weather and its relation to METARS 	Career Ready Practices CRP 1,2,4,11 Cluster Standards ST 3 Pathway Standards ST-SM 2,3 ST-ET 5 Industry Standards	Literacy RST.11-12.4 ELA Math Science (NGSS)
Week 32 Review Weather/Geography Effects on Flight	<ul style="list-style-type: none"> How do mountainous regions affect flight? What are the indicators of poor flying weather? 	<ul style="list-style-type: none"> Explain the effects of geography on wind and weather Make choices about flight based on current and predicted weather 	<ul style="list-style-type: none"> Rubric graded presentation on given weather situations 	Career Ready Practices CRP 1,2,4,11 Cluster Standards ST 3 Pathway Standards ST-SM 2,3 ST-ET 5	Literacy RST.11-12.4 ELA RI.11-12.1 W.11-12.2 SL.11-12.4 Math

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 Math, Science
				Industry Standards	Science (NGSS)
Week 33 Review Craft Loading and Physics	<ul style="list-style-type: none"> How are end effectors attached to a flying system? Why is load important in aircraft performance? 	<ul style="list-style-type: none"> Read and interpret charts to determine G-forces on a turning aircraft Explain how load impacts aircraft performance 	<ul style="list-style-type: none"> Exam on flight physics 	Career Ready Practices CRP 1,2	Literacy
				Cluster Standards ST 6	ELA
				Pathway Standards ST-SM 2,3 ST-ET 5	Math A-REI.6
				Industry Standards	Science (NGSS)
Weeks 34-35 Review Emergency Procedures and Risk Management	<ul style="list-style-type: none"> How are risks managed? What steps can be taken to mitigate risks? 	<ul style="list-style-type: none"> Define and explain the "PAVE" checklist Explain ways to assess and mitigate risks 	<ul style="list-style-type: none"> Exam on risk management Demonstrate use of PAVE checklist during flight operations 	Career Ready Practices CRP1,2,4,11	Literacy RST.11-12.4
				Cluster Standards ST-3,6	ELA SL.11-12.1
				Pathway Standards ST-SM 2,3 ST-ET 6	Math
				Industry Standards	Science (NGSS)
Weeks 35-38 Review Human Factors	<ul style="list-style-type: none"> How does a team work together to fly a mission? What impacts a person's ability to operate? 	<ul style="list-style-type: none"> Explain the principle of Crew Resource Management Define and explain the 3P model Explain how drugs, emotion, and human physiology impact the ability make decisions 	<ul style="list-style-type: none"> Demonstrate crew resource management in flight operations Create presentation to be shared with younger RPAS students on the effects of drugs, emotions, and human physiology 	Career Ready Practices CRP 1,2,4,11	Literacy RST.11-12.2
				Cluster Standards ST 3,6	ELA SL.11-12.1,5,6
				Pathway Standards ST-SM 2,3 ST-ET 6	Math
				Industry Standards	Science (NGSS)
Weeks 38-40 Chose Applications of RPAS	<ul style="list-style-type: none"> What industries use RPAS and HOW? 	<ul style="list-style-type: none"> Distinguish RPAS applications and their related industries Pass the FAA Exam for Remote Pilot License 	<ul style="list-style-type: none"> Students will research applications of RPAS in current and upcoming industries Student-chosen research 	Career Ready Practices CRP1,2,4,11	Literacy RST.11-12.1,4
				Cluster Standards ST6	ELA RI.11-12.1

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 Math, Science
Final Review for License Exam FAA Exam for Remote Pilot License			presentation on RPAS applications	Pathway Standards	Math
				Industry Standards	Science (NGSS)

Syracuse City School District
Career and Technical Education Programs
Course Syllabus
P-TECH RPAS 400: Remote Pilot Aerial Systems 400



Course Description

This course is the final in the 4-year sequence on Remote Pilot Aerial Systems. Through hands-on, project-based experiences, students will continue to apply critical thinking and problem-solving skills while expanding GIS knowledge. They will explore a range of GIS applications, including agriculture, emergency services, insurance and inspection, photography and videography. Students will perform research on emerging technologies and applications, and with instructor guidance, select and complete independent projects. Students will also have the opportunity to earn integrated math, ELA and college credits upon successful completion of the program.

Course Objectives

1. Students will understand how to use ArcMap and their own aerial images to generate their own maps.
2. Students will understand the current state of RPAS in agriculture, emergency services, inspection, and imagery.
3. Students will propose and develop their own solutions to RPAS technology or engineering problems.

Integrated Academics

N/A

Equipment and Supplies

- School will provide: All necessary lab and classroom equipment.
- Student will provide: N/A

Textbook

N/A

Grading

15%	Class attendance/ Participation
10%	Homework
25%	Quiz
50%	Projects

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 exploratory weeks. Unexcused absences on quizzes days will count as a zero.

Additional Course Policies

Students are required to follow all safety procedures.

Course Calendar

Quarter	Units of Study
1	<ul style="list-style-type: none">• GIS and ArcMap• Georeferencing images
2	<ul style="list-style-type: none">• RPAS applications in agriculture• RPAS Applications in Emergency Services• RPAS Applications in Inspection• RPAS Applications in photo and videography
3	<ul style="list-style-type: none">• Research in emerging technologies and applications• Introduction to RPAS independent project• Development of draft proposals
4	<ul style="list-style-type: none">• Final Project proposal• Project development• Project presentation

**Syracuse City School District
Career and Technical Education Program
Scope and Sequence
RPAS 400: Remotely Piloted Aviation Systems 400**



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 Math, Science
Weeks 1-10 Advanced GIS and Arcmap	<ul style="list-style-type: none"> How do we use our aerial images to create informative maps? What is georeferencing? 	<ul style="list-style-type: none"> Import a raster image into arcgis Understand the process of georeferencing Create a georeferenced image from self-taken imagery 	<ul style="list-style-type: none"> Rubric graded georeferenced image Projects to integrate RPAS images with ArcMap 	Career Ready Practices CRP 2,11	Literacy WHST.11-12.6
				Cluster Standards ST 1,2,5,6	ELA
				Pathway Standards ST-SM 1,2,5,6 ST-ET 2,3	Math
				Industry Standards	Science (NGSS)
Weeks 11-13 RPAS Applications in Agriculture	<ul style="list-style-type: none"> How are unmanned aerial systems used in agriculture? What are the advantages of precision agriculture? 	<ul style="list-style-type: none"> Define precision farming Evaluate a farmer's use of RPAS Explain the techniques used with an RPAS to increase agricultural production/efficiency 	<ul style="list-style-type: none"> Design an unmanned aerial system to aid in precision agriculture Rubric-graded presentation on students' designs 	Career Ready Practices CRP 2,11	Literacy RST.11-12.4,7,9 WHST.11-12.2,4,6
				Cluster Standards ST 1,2,5,6	ELA RI.11-12.1 W.11-12.2 SL.11-12.4
				Pathway Standards ST-SM 1,2,5,6 ST-ET 2,3	Math
				Industry Standards	Science (NGSS)
Weeks 14-16 RPAS Applications in Emergency Services	<ul style="list-style-type: none"> How are RPAS used in emergency situations? What laws dictate when and how a RPAS can be used for emergencies? 	<ul style="list-style-type: none"> Explain the application of RPAS in emergency situations Research the laws surrounding emergency services use of RPAS Students will judge the 	<ul style="list-style-type: none"> Presentation on RPAS application in emergency services Class debate on RPAS usage 	Career Ready Practices CRP 2,11	Literacy RST.11-12.4,7,9 WHST.11-12.2,4,6
				Cluster Standards ST 1,2,5,6	ELA RI.11-12.1,8 W.11-12.2 SL.11-12.1,3,4,6

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 Math, Science
		use of RPAS in EMS		Pathway Standards ST-SM 1,2,5,6 ST-ET 2,3	Math
				Industry Standards	Science (NGSS)
Week 17 RPAS Applications in insurance and inspection	<ul style="list-style-type: none"> • What industries use RPAS for inspection? • Why are RPAS valuable to insurance and inspection industries? 	<ul style="list-style-type: none"> • Identify the industries that use RPAS for inspection • Describe the benefits on RPAS for insurance inspection • Evaluate the costs of replacing tasks with a RPAS • Describe indoor and outdoor operations of RPAS 	<ul style="list-style-type: none"> • Students will plan indoor and outdoor operations of RPAS • Create a proposal to a company for the use of RPAS in their operations (infrastructure, construction, etc.) 	Career Ready Practices CRP 2,11	Literacy RST.11-12.4,7,9 WHST.11-12.2,4,6
				Cluster Standards ST 1,2,5,6	ELA RI.11-12.1 W.11-12.2
				Pathway Standards ST-SM 1,2,5,6 ST-ET 2,3	Math
				Industry Standards	Science (NGSS)
Weeks 18-19 RPAS Applications in photo and videography	<ul style="list-style-type: none"> • How has RPAS changed the photography and videography business? 	<ul style="list-style-type: none"> • Understand how RPAS has been used in photography and videography businesses 	<ul style="list-style-type: none"> • Create a mock business for video or photography – students will be graded on presentation of mock businesses 	Career Ready Practices CRP 2,11	Literacy RST.11-12.4,7,9 WHST.11-12.2,4,6
				Cluster Standards ST 1,2,5,6	ELA RI.11-12.1 SL.11-12.1, 6
				Pathway Standards ST-SM 1,2,5,6 ST-ET 2,3	Math
				Industry Standards	Science (NGSS)
Week 20 RPAS Applications Independent Project	<ul style="list-style-type: none"> • What are the emerging fields for applications of RPAS? 	<ul style="list-style-type: none"> • Research the newest applications of RPAS • Develop a new or improved use or component for RPAS 	<ul style="list-style-type: none"> • Rubric-graded presentation • Progress checks 	Career Ready Practices CRP 2,11	Literacy RST.11-12.1,4,9,10 WHST.11-12.4,5,6,8
				Cluster Standards ST 1,2,5,6	ELA RI.11-12.1 W.11-12.2 SL.11-12.1, 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 Math, Science
				Pathway Standards ST-SM 1,2,5,6 ST-ET 2,3,4	Math
				Industry Standards	Science (NGSS)
Weeks 21-25 Research and Proposal	<ul style="list-style-type: none"> What are new applications of RPAS? 	<ul style="list-style-type: none"> Research new developments in RPAS Develop proposal for independent student project 	<ul style="list-style-type: none"> Progress checks Proposal submission 	Career Ready Practices CRP 2,11	Literacy RST.11-12.1,4,9,10 WHST.11-12.4,5,6,8
				Cluster Standards ST 1,2,5,6	ELA RI.11-12.1 W.11-12.2
				Pathway Standards ST-SM 1,2,5,6 ST-ET 2,3,4	Math
				Industry Standards	Science (NGSS)
Week 26 Proposal Resubmit	<ul style="list-style-type: none"> What revisions are necessary for your proposal? What resources will you need for your selected project? 	<ul style="list-style-type: none"> Finalize student project proposals 	<ul style="list-style-type: none"> Final proposal submission 	Career Ready Practices CRP 2,11	Literacy RST.11-12.1,4,9,10 WHST.11-12.4,5,6,8
				Cluster Standards ST 1,2,5,6	ELA W.11-12.2
				Pathway Standards ST-SM 1,2,5,6 ST-ET 2,3,4	Math
				Industry Standards	Science (NGSS)
Weeks 27-35 Final Project	<ul style="list-style-type: none"> Based on your research, how have Unmanned Ariel Services evolved over 	<ul style="list-style-type: none"> Research/develop a use/application for RPAS? Develop an end-effector 	<ul style="list-style-type: none"> Rubric graded presentation Progress check 	Career Ready Practices CRP 2,11	Literacy RST.11-12.1,4,9,10 WHST.11-12.4,5,6,8

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 Math, Science
Development	time? • What new technologies have been developed and how have they been applied?	for an RPAS		Cluster Standards ST 1,2,5,6	ELA RI.11-12.1 SL.11-12.4,5,6
				Pathway Standards ST-SM 1,2,5,6 ST-ET 2,3,4	Math
				Industry Standards	Science (NGSS)
Weeks 36-38 Presentation Development and Public Speaking	• How can you develop an informative speech? • What are the parts of effective speeches? • What do you need to know about your target audience?	• Present to an professional audience • Develop a presentation sharing students' research	• Practice speech • Progress check	Career Ready Practices CRP 2,11	Literacy RST.11-12.1,4,9,10 WHST.11-12.4,5,6,8
				Cluster Standards ST 2,6	ELA SL.11-12.4,5,6
				Pathway Standards ST-SM 1,2,5,6 ST-ET 2,3,4	Math
				Industry Standards	Science (NGSS)
Weeks 39-40 Final Presentations	• Have you prepared adequately for your final project presentation? • Is it developed based on your target audience? • Have you practiced, and does it meet the time requirement?	• Present to a professional panel • Presentation sharing students' research	• Rubric graded presentation • Graded by volunteer industry judges	Career Ready Practices CRP 2,11	Literacy RST.11-12.1,4,9,10 WHST.11-12.4,5,6,8
				Cluster Standards ST 2,6	ELA SL.11-12.4,5,6
				Pathway Standards ST-SM 3 ST-ET 1,2,4	Math
				Industry Standards	Science (NGSS)

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



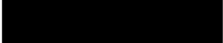

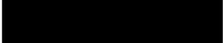
Recommendations from the review of teacher certification should be included in the self-study report and reviewed by the external committee. A list of all teachers for the program and the New York State teacher certification(s) held by each must be attached to the Application for Career and Technical 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	EDWARD LEVINE	SSN	
Date of Birth		Teacher Id	
Gender		Address	

Certificates						
Credential	Status	Application Type	Issued / Effective Date	Original Exp. Date	Time Extended Exp. Date	Control Number
Drone Technology 7-12, Transitional A Certificate	Issued	CERTIFICATE	07/10/2018	08/31/2021		1242946181
Technology Education, Professional Certificate	Issued	CERTIFICATE	02/11/2016			1009858161
Technology Education, Professional Certificate	Issued	CERTIFICATE	02/11/2016			1014543161
Technology Education, Initial Certificate	Expired	CERTIFICATE	09/01/2011	08/31/2016		530660111

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?	
<i>No Data Found</i>							

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>



SYRACUSE CITY SCHOOL DISTRICT

Jaime Alicea, Superintendent of Schools

Career and Technical Education

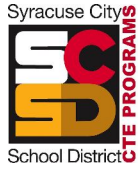
Robert Leslie, Director

The SCSD P-TECH RPAS program uses FAA Part 107 written assessment and the NIST Drone performance exams.. More information can be found here:

<https://www.ecfr.gov/cgi-bin/text-idx?SID=e331c2fe611df1717386d29eee38b000&mc=true&node=pt14.2.107&rgn=div5>

https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=20516

<https://www.nist.gov/el/intelligent-systems-division-73500/response-robots/aerial-systems>



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

<input type="checkbox"/>	Table of Contents:	This should list each section and piece of the portfolio in the order it appears
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.
<input type="checkbox"/>	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.
<input type="checkbox"/>	Certifications/Credentials	Students should include copies of any credentials and/or certifications they have earned as a result of their program.
<input type="checkbox"/>	Transcript	Student provides a copy of his or her full academic transcript.
<input type="checkbox"/>	Employability Profile	<p>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.</p> <p>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.,</p>

	employer and/or job coach).
<input type="checkbox"/>	College Research A written research assignment focusing on three colleges offering programs in the student's chosen career pathway.
<input type="checkbox"/>	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
<input type="checkbox"/>	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.
<input type="checkbox"/>	Work Samples Examples highlighting <i>only the student's best work</i> , 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.

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.

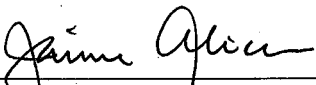
PLEASE NOTE THAT MVCC RESERVES THE RIGHT TO RECIND APPROVAL OF A COURSE OFFERING TO THE HIGH SCHOOL IF AN INSTRUCTOR'S CREDENTIALS ARE NOT APPROVED BY THE MVCC ASSOCIATE DEAN.

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

Date

2/14/17

Date

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

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>



SYRACUSE CITY SCHOOL DISTRICT
Career and Technical Education

CTE

Internship Handbook

Preparing today's students for tomorrow's careers.



Syracuse City School District

Career and Technical Education Internship

Introduction to Career & Technical Education Work Based Learning

Introduction to Syracuse City School District CTE Internship

Career & Technical Education Program/Teacher Guidelines

1. Legal requirements of Internship Program
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. Workbased 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 (NYS DOL), 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

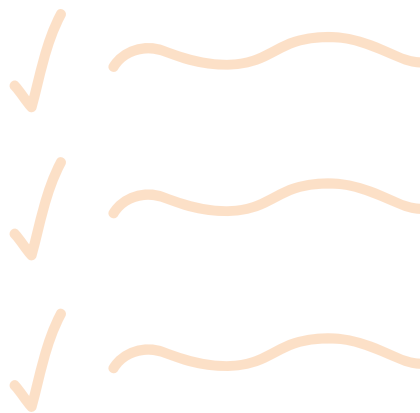
During

- 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 your 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

TO DO...



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



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-driven 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 on days followed by a school day without written consent of parent or guardian and 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 on days not followed by a school day 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."



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):
INSURED	E-MAIL ADDRESS:	
	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 <input type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR 500,000 Retained GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> N/A WC STATUTORY LIMITS OTH-ER E.L. EACH ACCIDENT \$ 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**

CERTIFICATE HOLDER	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

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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) _____.





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	
Primary Parent/ Guardian Email		Home	
		Cell	
Secondary Parent/ Guardian Name		Secondary Parent/ Guardian's Telephone Number	
Secondary Parent/ Guardian Email		Home	
		Cell	
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? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, which license do you have? <input type="checkbox"/> Full License <input type="checkbox"/> Junior License
Do you drive to school? <input type="checkbox"/> Yes <input type="checkbox"/> No	License Number:

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

- Public Transportation Other



(Form #2 Continued)

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
725 Harrison Street, Syracuse, NY 13210

CTE Internship Ready to Work Assessment (Form #3)

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			





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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Student is able to read instructions for information and application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Student can calculate and measure for information and application.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Student can behave in a responsible manner without supervision.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Student can communicate verbally and in writing to evoke clear understanding.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Student demonstrates good listening and follow through skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Student demonstrates critical thinking and problem solving skills.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Student can locate and manage resources for problem solving.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Student demonstrates a positive work ethic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Student demonstrates computer literacy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



(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

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
725 Harrison Street, Syracuse, NY 13210

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
725 Harrison Street, Syracuse, NY 13210

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	<input type="checkbox"/>	/ /
Safe Serv	<input type="checkbox"/>	/ /
First Aid	<input type="checkbox"/>	/ /
CPR	<input type="checkbox"/>	/ /
Other	<input type="checkbox"/>	/ /





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

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 _____

Employer/training sponsor

_____/_____/_____
Date

Student

_____/_____/_____
Date

CTE Teacher/WBL Coordinator

_____/_____/_____
Date

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





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

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

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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was actively involved in the team meetings and felt free to express my thoughts and opinions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My mentors encouraged and responded to my questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have an increased appreciation for teamwork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I have a greater ability to ask good questions and synthesize information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was presented with opportunities to learn by doing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I gained factual knowledge about careers throughout the internship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would recommend this opportunity to others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My time was well spent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would consider this employer as a future employer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My co-workers are generally positive about work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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
725 Harrison Street, Syracuse, NY 13210

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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Email: CivilRightsCompliance@scsd.us

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

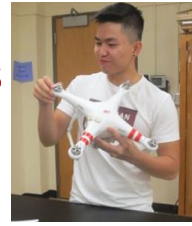
Recommendations for the employability profile model should be included in the self-study report and reviewed by the external committee.

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



EMPLOYABILITY PROFILE

Remotely Piloted Aircraft Systems



Industry Based Skill Standards

Proficiency Definitions

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

	9th	10th	11th	12th
Career Awareness of the RPAS Industry				
Understands RPAS applications and related technology. Identifies various careers related to Drone/RPAS technology, required education/ training, and additional potential career opportunities related to the field of study				
RPAS Safety and Operations				
Understands the laws relating to safety and operations of RPAS in the United States as defined by the FAA. Demonstrates safe working habits when operating RPAS equipment and follows safe practices when testing RPAS performance and handling				
Physics of Flight				
Demonstrates an understanding of the physics related to flying devices. understands what affects aircraft performance, PIC performance, and the environmental and human factors that affect aircraft performance.				
Applications				
Identifies applications and related technology of RPAS in various industry settings, seeks and interprets information on the changing uses for RPAS.				
RPAS Current Events				
Seeks and interprets information on the changing applications and uses for RPAS in whatever careers they are appearing.				
Tools and Equipment				
Identifies and demonstrates the correct techniques for using tools and equipment. Uses electronic diagnostic equipment accurately and effectively. Demonstrates appropriate tool and equipment safety procedures.				
Weather				
Demonstrates an understanding of weather patterns and their development, and where to obtain weather information. Makes informed choices about flight based on current and predicted weather.				
Pilot Alerts				
Demonstrates the ability to interpret METARs (Meteorological Aerodrome Report), TAFs (Terminal Aerodrome Forecast), and NOTAMS (Notice to Airmen). Makes decisions for flight planning based on information obtained.				
Crew Resource Management				
Demonstrates an understanding of crew resource management in flight operations. Can define the various roles and responsibilities and how drugs, emotion, and human physiology impact individuals abilities to make good decisions				

	9th	10th	11th	12th
Reading and Interpreting Flight Maps				
Understands the notations commonly used on air maps, can extract relevant information. Can plan a routes between given points on a map using latitude and longitude to identify of map locations.				
Video and Photography using RPASs				
Understands the various formats that are commonly used with photos and videos captured with RPASs. Can edit photo or video content as needed using Adobe Photoshop processes including chroma key, key frames, and scale/rotation				
Airport Operations and Airspace				
Understands airport and airspace classifications and restrictions in relation to RPAS operations. Can read and interpret air charts to determine restrictions and landmarks, can explain airport flight patterns				
FAA Rules and Regulations				
Understands the the role of the FAA as it governs RPAS, explains FAA regulations and classifications of Airspace. Can explain operational requirements within FAA controlled Airspace and decipher Notices to Airmen (NOTAMS)				
Electromechanical				
Identifies and explains the function of various components are used in an RPAS Demonstrates an understanding of how the mechanical components are controlled and how they interact in both fixed wing and multi-copter applications				
Geographic Information Systems (GIS)				
Demonstrates the understanding of GIS is used in relation to RPAS flight. Can create accurate maps to communicate information using data and aerial imagery obtained through GIS applications.				
RPAS Applications in Agriculture				
Understands how are RPAS is used in agriculture, the advantages of precision agriculture, and the impact use of RPAS can have for farmers. Can explain the techniques used with RPAS that lead to improved productivity.				
RPAS Applications in Insurance and Inspections				
Can explain the benefits of using RPAS for insurance and building inspections, understands the impact RPAS can have on the costs of inspections for both indoor and outdoor scenarios. Can develop a proposal for RPAS inspections.				
RPAS Applications in Emergency Services				
Understands the various applications of RPAS in emergency situations. Can explain what laws dictate when and how a RPAS can be used for emergencies situations. Researches how RPAS can enhance emergency responder effectiveness.				

Industry Certifications Attained	Yes	No
FEMA		
IS-00240.b Leadership and Influence		
IS-00454 Fundamentals of Risk Management		
IS-00241.b Decision Making and Problem Solving		
FAA Part 107 - Remote Pilot's Lisence		

College Credits Attained	credit



Remotely Piloted Aircraft Systems

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 _____

Special Recognitions or Scholarships _____

Student Leadership Organization _____