

**Entity Information** 



### Florida Job Growth Grant Fund Workforce Training Grant Proposal

Proposal Instructions: The Florida Job Growth Grant Fund Proposal (this document) must be completed and signed by an authorized representative of the entity applying for the grant. Please read the proposal carefully as some questions may require a separate narrative to be completed.

Name of Entity:	
Federal Employer Identification Number (if applicable):	
Contact Information: Primary Contact Name:	
Title:	
Mailing Address:	
Phone Number:	

#### **Workforce Training Grant Eligibility**

Pursuant to 288.101, F.S., The Florida Job Growth Grant Fund was created to promote economic opportunity by improving public infrastructure and enhancing workforce training. This includes workforce training grants to support programs offered at state colleges and state technical centers.

Eligible entities must submit proposals that:

- Support programs and associated equipment at state colleges and state technical centers.
- Provide participants with transferable and sustainable workforce skills applicable to more than a single employer.
- Are offered to the public.
- Are based on criteria established by the state colleges and state technical centers.
- Prohibit the exclusion of applicants who are unemployed or underemployed.





#### 1. Program Requirements:

Each proposal must include the following information describing how the program satisfies the eligibility requirements listed on page 1.

A.	Provide the title and a detailed description of the proposed workforce training.
В.	Describe how this proposal supports programs at state colleges or state technical centers.
C.	Describe how this proposal provides participants transferable, sustainable workforce skills applicable to more than a single employer.
D.	Does this proposal support a program(s) that is offered to the public?
	☐ Yes ☐ No
E.	Describe how this proposal is based on criteria established by the state colleges and state technical centers.
F.	Does this proposal support a program(s) that will not exclude unemployed or underemployed individuals?
	Yes No





	G.	Describe how this proposal will promote economic opportunity by enhancing workforce training. Please include the number of jobs anticipated to be created from the proposed training. Further, please include the economic impact on the community, region, or state and the associated metrics used to measure the success of the proposed training.
2.	Add	ditional Information:
	A.	Is this an expansion of an existing training program?
	В.	Does the proposal align with Florida's Targeted Industries? (View Florida's Targeted Industries here.)
		☐ Yes ☐ No
		If yes, please indicate the targeted industries with which the proposal aligns.  If no, with which industries does the proposal align?
	C.	Does the proposal align with an occupation(s) on the Statewide Demand Occupations List and/or the Regional Demand Occupations List? (View Florida's <a href="Demand Occupation Lists here">Demand Occupation Lists here</a> .)
		☐ Yes ☐ No
		If yes, please indicate the occupation(s) with which the proposal aligns.
		If no, with which occupation does the proposal align?





D.	Indicate how the training will be delivered (e.g., classroom-based, computer-based, other).				
	If in-person, identify the location(s) (e.g., city, campus, etc.) where the training will be available.				
	If computer-based, identify the targeted location(s) (e.g. city, county, statewide) where the training will be available.				
Ε.	Indicate the number of anticipated enrolled students and completers.				
F.	Indicate the length of program (e.g., quarters, semesters, weeks, etc.), including				
	anticipated beginning and ending dates.				
	Begin Date: End Date:				
G.	Describe the plan to support the sustainability of the proposal.				
Н.	Identify any certifications, degrees, etc. that will result from the completion of the program. Please include the Classification of Instructional Programs (CIP) code if applicable.				



3.



I.	Does this project have a local r	match amount?		
			☐ Yes	□No
	If yes, please describe the enti	ty providing the	match and the amou	nt.
J.	Provide any additional informati	on or attachme	nts to be considered fo	or the proposal
Pr	ogram Budget			
	stimated Costs and Sources ining costs and other funding so			
A.	Workforce Training Project Cos Equipment Personnel	sts: 		
	Facilities Tuition Training Materials	\$ \$	<u></u>	
	Other Total Project Costs	\$ \$	Please Specify:	
В.	Other Workforce Training Projectity/County	\$	urces:	
	Private Sources Other (grants, etc.) Total Other Funding	\$ \$	Please Specify:	
	Total Amount Requested	\$		

**Note:** The total amount requested must equal the difference between the workforce training project costs in 3.A. and the other workforce training project funding sources in 3.B.



4.

documents, etc.



C.	obtair	de a detailed budget narrative, including the timing and steps necessary to the funding, how equipment purchases will be associated with the training am, if applicable, and any other pertinent budget-related information.
Аp	prova	s and Authority
A.	obtain	ty is awarded grant funds based on this proposal, what approvals must be led before it can execute a grant agreement with the Florida Department of omic Opportunity (e.g., approval of a board, commission or council)?
B.	execu	proval of a board, commission, council or other group is needed prior to tion of an agreement between the entity and the Florida Department of omic Opportunity:
	i.	Provide the schedule of upcoming meetings for the group for a period of at least six months.
	ii.	State whether that group can hold special meetings, and if so, upon how many days' notice.
C.	Attach	evidence that the undersigned has all necessary authority to execute this

proposal on behalf of the entity. This evidence may take a variety of forms, including but not limited to: a delegation of authority, citation to relevant laws or codes, policy





behalf of the above-described	entity.	
Name of Entity:		
Name and Title of Authorized I	Representative:	 
Representative Signature:	Michael D. Lucchesi	 
Signature Date:		

I, the undersigned, do hereby certify that I have express authority to sign this proposal on

# Florida Job Growth Grant Opportunity Industrial Technology and Unmanned Aerial Systems Proposal

#### 1.A. Title and Description

Title: Industrial Technology and Unmanned Aerial Systems.

This proposal consists of Industrial Technology programs and an Unmanned Aerial System (UAS) program. The Industrial Technology consists of two programs; industrial machinery mechanic and welding. The Industrial Machinery Mechanic is a new short term college credit certificate program extracted from the overall Industrial Technology degree program. The welding program is an expansion program due to the current maximum class load the college is experiencing and completers receive a national level certification. Two full classes are currently in operation and based on the constant class fill rate the need to expand is evident. The welding program result in students earning a postsecondary adult vocational certificate (PSAV). The UAS program is a new technology program based on the projected high demand by the commercial and service industries (see chart attached and additional data is located at the following website <a href="http://www.grandviewresearch.com/industry-analysis/global-commercial-drones-market">http://www.grandviewresearch.com/industry-analysis/global-commercial-drones-market</a>). The UAS program is a job enhancement initiative that provides additional capabilities and skills to various industries. Together, these three workforce development programs fulfill job demands, facilitate potential needs for new business developments, and enhance job skills that increase industry's capabilities today.

The Industrial Technology programs that will be impacted by this project include the Industrial Machinery Maintenance and the Welding workforce developmental training programs. The Industrial Technology programs provide training leading to understanding all aspects of the industrial-machinery maintenance-technology industry and demonstrating elements of the industry such as planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues, and health, safety, and environmental issues. Florida's median wage is \$21.72 with the regional median wage at \$23.05, above the state median wage. Industrial Machinery Mechanics salary level and entry level are above the regional salary and entry level among the occupation sector (see attachment 1). Industrial Machinery Mechanics is a High skill-High wage occupation that will aide in raising economic income status within the region (http://www.floridajobs.org/labor-market-information/publications-and-reports/labor-market-information-reports/regional-demand-occupations-list).

Northwest Florida State College (NWF State College) will offer the Industrial Technology programs to train individuals to fulfill occupations such as industrial machinery mechanics and machinery maintenance workers who maintain and repair factory equipment and other industrial machinery, such as conveying systems, production machinery, and packaging equipment and millwrights, who install, dismantle, repair, reassemble, and move machinery in factories, power plants, and construction sites. Workers in these occupations must follow safety precautions and use protective equipment, such as hardhats, safety glasses, and hearing protectors. Most work full time in factories, refineries, food-processing facilities, power plants, or construction sites. However, they may be on call and work night or weekend shifts. Employment of industrial machinery mechanics, machinery maintenance workers, and millwrights is projected to grow by 16 percent from 2014 to 2024, much faster than the average for all occupations (www.bls.gov/ooh/installation-maintenance-and-repair/industrial-machinery-mechanics-andmaintenance-workers-and-millwrights.htm). The need to keep increasingly sophisticated machinery functioning and efficient will drive demand for these workers. Job prospects for qualified applicants are expected to be good and trends show it becoming even better due to the continuous build of industrial machinery. In 2016, Florida Department of Economic Opportunity presented an occupational analysis illustrating an upward growth of 4% for the next five years in both Industrial Machinery Mechanic and Welding occupational sectors (Florida Jobs 2030 report; http://www.flchamber.com/research/research-programs/florida-jobs-2030/).

The Welding program, another component of the Industrial Technology program, offers a broad foundation of knowledge and skills to prepare students for employment as welders in the manufacturing industry. Students study workplace safety and organization, basic manufacturing processes, metals identification, basic interpretation of welding symbols, and oxy-fuel gas cutting practices. Welders use hand-held or remotely controlled equipment to join or cut metal parts. They also fill holes, indentations, or seams of metal products. Employment of welders is projected to grow 4 percent from 2014 to 2024. Skilled welders with up-to-date training and proficient skills should have good job opportunities. The regional median wage for welders is \$18.24, above Florida median wage of \$16.87

The UAS program is an emerging commercializing and public service technology program requiring the constituents to develop skills to become an Unmanned Aircraft Vehicle (UAV) operator. These skills support various industries including agriculture, environmental, large and small businesses (i.e. real estate, roof top inspectors, outdoor ceremonies, and event planning) first responders, and entrepreneurs. UAV student operators will receive hands-on experience in the classroom and in the field. Students will learn how to fly safely in the National Airspace while abiding by current regulations. The specific skills provided lead to obtaining a Federal Aviation Administration (FAA) Remote Pilot Certification and the applicable occupational knowledge and scenario training competencies to support fire, police, and local businesses. The potential commercial uses of unmanned vehicle systems are endless, to include aerial photography and video, search and rescue, disaster response, digital mapping, photogrammetry,

remote sensing and many others. Students will obtain hands-on training, outdoor lab environment, followed with a FAA Remote Pilot Certification and an UAS Associate of Applied Science degree. Due to the emerging nature of the field of UAV's, the Department of Labor and the State of Florida do not have employment projections for the employment of UAV operators; however, based on regional employer input, the need is increasing rapidly for workers with these skills. Small UAV operator wage data is not currently collected, however, a review of Indeed, Monster, and Simply Hired recruitment firms show an average salary of \$50,000.00 per year with majority of the jobs with Department of Defense Contractors such as Northrop Grumman, Boeing, and Booze Allen Hamilton. A review of first responder's usage throughout the nation highlighted an increase interest in the utilization of small UAV's as an additional skill; however, there was no data to show increase of wages per obtaining a small UAV operator certification and skill. The advantage is an increase in capability and efficiency in public service.

Employability skills will be added to support building the students problem solving, critical thinking, and project management skills. Data collection and analysis shall be incorporated within each of the learning activities. NWF State College Career Center will lead the efforts as a stand-alone course upon completion of their academic workforce program in Industrial Machinery Mechanic, Welding, or UAS programs.

#### 1.B. Describe how the programs supports state or technical colleges.

Northwest Florida State College is administering the Industrial Machinery Maintenance, Welding, and UAS programs to support high demand labor needs within the region. These workforce readiness programs support the mission of NWF State College by developing workforce programs to meet state and regional job demands. Postsecondary noncredit education has become increasingly common, and many state colleges now enroll more noncredit than credit students. Much of the growth has occurred in Post-Secondary Adult Vocational workforce instruction. The College Credit Certificate Industrial Machinery Mechanic program, provide workforce readiness skills, meaning that once students complete the programs they are employable. Northwest Florida State College is constantly aware of shifting workforce demands and provides the applicable skills in ways that are responsive to employer needs.

#### 1.C. Describe how these skills are transferable to more than one employer.

Industrial Machinery Maintenance and Welding competencies are used by various industries (i.e., aviation, public works, manufacturing, and energy). Competency skills such as machinery and equipment installation and removal, conveyor maintenance, basic machine shop operations, piping and tubing and pump operations, welding, and maintaining combustible engines are transferrable skills throughout the industrial world. The maintenance skill set supports jobs in facility maintenance, manufacturing and production operations, and industrial maintenance. Employers within the region, including Eastern Ship Building, Airbus, Fort Walton Machining,

Gulf Power, GE Wind, Quicksilver Welding service, Davis Welding, ABC Welding and railing, Destin Machine Inc., Triple H. Manufacturing, and Edwards Machine shop, often recruit industrial machine specialists and welders. Transferrable skills among various industries include: reading diagrams and schematic drawings to determine work procedures, maintaining and repairing stationary industrial equipment, operating hoisting and lifting devices, working independently and with others to solve mechanical and technical problems, communicating, persuading, and explaining to others what needs to be done, working accurately with numbers, and on occasion doing basic drawings of machine parts, cleaning, lubricating and performing other routine maintenance work, and using welding equipment, hand and power tools as necessary.

The UAV operator skills are utilized by multiple industries in the aviation, business, agriculture, energy, and public service sectors. The expansion of skill sets acts as an enabler to providing additional capabilities for many industries. UAV operator skills are 100 percent transferrable to occupations requiring data collection from aerial views and for industries that use small drone technology. Employers recruiting workers with this skill set include multiple real estate companies (ERA, Century 21, Emerald Dunes, Coldwell Banker and private sale through owners), Rooftop inspectors (building inspectors), and regional event planners such as Seashell Wedding Company, Party-styles Inc., and Yours Truly Corporation, will use aerial photography for weddings, retirements, and other social functions. First responders such as fire and police departments are using UAV's for various tasks, from "eyes in the sky" type surveillance for high-rise building (i.e. hotels and condominiums) fires or missing persons and possibly to identifying causes for traffic jams that are not accessible by emergency vehicles in a responsive manner. The primary difference among transferable skills will be the type of data to be analyzed; however, payload installation, flight operations, knowledge of FAA regulations, and ground set up are the primary transferrable skills sought by various employers.

The employability skills consisting of problem solving, critical thinking, and project management are used in various industries in different functional areas. These skills will be utilized through group application in order for each student to test their abilities in receive constructive feedback. NWF State College Career Center will provide the instructional methods and learning lab activities. These lessons shall be a stand-along course to support student employability skills upon entering the workforce.

#### 1.D. Does this proposal support a program offered to the public?

Yes

#### 1.E. Describe how this program is based on criteria established by state colleges.

The curricula for the Industrial Machinery Mechanic, Welding, and UAS programs are based on Florida College's curriculum frameworks. Multiple UAS commercial industry standards will be utilized to aid in hands on training and creating real world hands on experience scenarios. The UAS program is based on FAA regulatory guidance, Advisory Circular Part 107, Remote Pilot Certification, which will prepare students to complete the FAA Remote Pilot examination to earn their commercial Remote Pilot License.

## 1.F. <u>Does this proposal support a program that will not exclude unemployed or underemployed individuals?</u>

Yes

# 1.G. <u>Describe how this program will promote economic opportunity by enhancing workforce training.</u> How many jobs will it create? What is the economic impact and the associated metrics used to measure the success.

The Industrial Machinery Mechanic and Welding programs will promote economic opportunity through the established industry standard criteria that is embedded within each course as well as the instructor qualifications to support a highly-visible program.

The Industrial Technology programs will fulfill the training needs for jobs that support current economic needs as well as demonstrate to potential new business entities that a viable technician pipeline is in place to support their need for a qualified workforce. The Florida Department of Economic Opportunity 2017-2018 Region Occupational Demand lists indicate that the industrial machinery mechanics occupation is a high demand occupation: 638 workers are needed in workforce development areas 2, 3, 4, and 5 for a total need of 3,190 workers. The need for welders is high in the region: 1,613 welders are needed within workforce development areas 1 thru 5. Workforce development regions 2 (Okaloosa and Walton counties) and 3 (Calhoun, Holmes, Jackson, Liberty, and Washington Counties) each need 528 welders. Local Employers Eastern Shipbuilding and Air Bus have also reported a high demand for welders.

The UAS market demand is rapidly increasing with a market value exceeding in billions over the next 20 years and beyond (see attachment 2). Over 150 fire and police stations are located throughout the five-workforce development regions in Northwest Florida would benefit from the additional skills and technology training. The UAV technology field is recently emerging, and current occupational projections do not reflect employer needs for workers with skills to support the workforce needs. However, the skills could be used in exercise planning as well as in search and rescue at beaches, state parks, and other recreational areas where informational data and

surveillance is required. Fire and Police Chiefs as well as emergency managers have expressed interest in utilizing UAV's. These first responder leaders have acknowledged the need in training in order for their personnel to gain the required knowledge and experience flying drones. The demand for UAS is increasing at a phenomenal rate. A shift in military strategies and the demand for use in the private sector as well as other government agencies has fueled an industry which is estimated to explode to over \$80 billion in the next decade. With local government agencies and First Responder personnel in need of new technological options for fast and safe mission execution.

The project will be monitored and tracked on a monthly basis. Cost, schedule, and performance will be managed based on comparison of planned versus actual. Risk and issue management will be incorporated as project control measures. The measures presented below will be the metrics used to evaluate the success of the project. The project manager will be responsible for data collection and reporting.

(Budget) Cost Variance – Planned versus Actual for each program

(Time) Schedule Variance-Planned versus Actual for each program

(Effort) Performance Variance – Planned versus Actual for each program

Program measures are based on the intent and scope of the project. The project manager will articulate program goals and measures to the applicable faculty and staff supporting the grant project. The program measures are goal oriented with both output and outcome-based measures. Output measures are represented as a count of a specified event (i.e., persons served and activities delivered). Outcome-based measures are quantitative and are expressed in numerator/denominator format with the result shown as an absolute quantity, percentage change, increase, or decrease. The program measures are designed to track college admission efforts and effectiveness, job placement and career development, and partnership efforts working with regional industries. Table 1-1 (See attachment 3) below presents the category, measure, frequency data is collected, the program goals, and results. Results will be reviewed following each semester; and necessary action plans, if needed, will be developed to ensure all program goals are achieved.

Table 1-1: Program Measures:

Category	Measure	Frequency	Goal	Results
Program -	Number of students	Semester	Industrial Mechanic: 9	
Admission	who have enrolled		Welding: 13	
	in each program		UAV: 10	
	each semester			
Program -	Number of	Semester	Industrial Mechanic: 9	
Effectiveness	completers per		Welding: 13	
	semester		UAV: 10	
Program –	Percentage of	Semester	Industrial Mechanic: 8	

Job Placement	completers who have secured a job within six months from program completion		Welding: 11 UAV: 9	
Program – Career Development	Percentage of students who were able to obtain an internship each semester	Semester	Industrial Mechanic: 8 Welding: 11 UAV: 9	
Program - Partnership	Number of industries supporting each academic program annually	Semester	Industrial Mechanic: 5 Welding: 5 UAV: 5	
Program - Partnership	Number of employers who are *served during one year.	Annually	Industrial Mechanic: 4 Welding: 4 UAV: 4	

<sup>\*</sup>Employers served are those who have requested contracted training or to interview students for job openings

#### 2.A. Is this an expansion of an existing program?

Yes, for Industrial Technology (welding), Fire Science, and Criminal Justice training programs. A portion of these funds support the UAS program which is a new capability for first responders which increase their skills sets providing them with ready workforce skills to enter today's job market. Industrial Technology is an expansion in the welding program by providing additional learner work stations and equipment due to the increase volume of students.

#### 2.B. Does the proposal align with Florida Targeted Industries?

Yes, Manufacturing, Aviation, and Defense and Homeland Security.

#### 2.C. Does the proposal align with State demand Occupation List?

Yes, Industrial Machinery Mechanics (49-9041), Welders (51-4121), Police and Sheriff Officers (33-3051), and Firefighters (33-2011), and Maintenance and Repair Workers, General (49-9071)

#### 2.D. <u>Indicate how the training will be delivered:</u>

The Industrial Technology program will be offered in Niceville, Florida at the Northwest Florida State College administrative campus. The UAS program will be offered in Niceville and in Defuniak Springs, Florida. Industrial Technology and UAS training will be both classroom (theory) and hands-on (practical) training. Classrooms lessons will be followed with lab activities for each framework module to assure competencies are measured throughout the curriculum. The strong immersion of both classroom and hands-on learning is conducive to the industry-preferred methods of training delivery for aviation maintenance specialists. Training will be administered through face-to-face classroom discussions as an in-residence course, hands-on training through laboratory lessons.

#### 2.E. Anticipated enrollments and completers

Anticipated enrollments for the Industrial Machinery Mechanic program is 10 students per semester for a total of 20 students per year. The Welding program anticipated enrollments of 15 per semester for a total of 30 students per year. The UAV program anticipates 12 enrollments per semester for a total of 24 students per year. The employability skills course is based on an estimated 37 enrolled students.

All three academic programs have estimated their completion rate at 93%, based on similar programs currently in place. The Industrial Technology employed highly-qualified instructors and sustains an established accreditation program with state curriculum frameworks. The UAS program is based on a standard set of off-the shelf curriculum. The average completion rate across the nation at college and private industries is 93%. Northwest Florida State College is known for delivering high value educational programs as demonstrated in the nursing and dental programs. These programs were recently awarded gold medals at the SkillsUSA National Olympics. The health science programs are reflective of NWF State College course and curriculum standards as well as the exceptional faculty in delivering top notch instruction to meet the needs of employers. The employability skills course estimated completion rate is 97%.

#### 2.F. Indicate length of program

Industrial Machinery Maintenance has been designed as a 900 hour program. The Industrial Machinery Mechanic program is comprised of three courses. Welding is 1050 hours. The Welding program consists of eight courses with a certification obtained upon completion. UAS is based on the program track (Fire, Police, Payload, and Business-Entrepreneurial. Majority of the program tracks are 30 hours in length (These hours are directly related to UAS knowledge

and application lessons). Employability skills course is 24 hours comprised of various work environment exercises that will benefit employers and students.

#### 2.G. Describe the plan to support the sustainability of the program

Once initial resource costs have been used to ramp up the programs, the programs will be sustained through student enrollments and the NWF State College operational budget. Scholarships may be awarded based on the college foundation and other potential donors' desires. As the programs progress, NWF State College will address internships with the current Manufacturing Advisory Committee and solicit the support of area industries. Simultaneously an apprenticeship discussion shall commence in seeking the partnership with regional industries becoming leaders in building up these apprenticeship programs.

#### 2.H. <u>Identify any certification or degrees</u>

Students who complete the Industrial Machinery Maintenance programs will receive a College Credit Certificate. The students who complete the Welding program will receive a PSAV. PSAV certificate programs are comprised of clock hour courses and are designed to prepare students for direct entry to employment. The skills acquired may be articulated into comparable college credit work and applied to college credit certificate, or A.S. degree programs.

UAS program completers will receive an Associate of Applied Science degree based upon their specialization. Completers will be well prepared to take the FAA Remote Pilot Certification examination as well. Short term certificates is another option UAV student operators could obtain based on their completed occupational program track (Fire, Police, Payload, and Business-entrepreneurial).

The employability skills course completers will receive a certificate of completion, highlighting the number of hours in each of the skills (problem solving, critical thinking, and project management). This certification will provide employers with knowledge as to the specific skills the applicants have invested in to learn and able to apply to their work center.

#### 2.I. Does the Project have a local match

No

#### 2.J. Provide any additional information

Northwest Florida State College has met with members of the applicable industry and CareerSource Florida Okaloosa and Walton counties to learn more about the industry's workforce, the job opportunities that exist, and the education and training required to fill those opportunities. To build Florida's future, Florida will need the skills and talents of a new generation of trade workers. Only through the hard work and dedication of tomorrow's skilled trade workers can Florida and the Northwest Region maintain and improve the critical infrastructure upon which our economy depends. In addition to fulfilling the workforce needs of Northwest Florida, this project aligns with the nation's "Skills to Build America's Future" initiative designed by the Department of Labor's Employment and Training Administration (www.doleta.gov/business/skilltobuild.cfm).

#### 3.A. Program Budget

Equipment: \$1,865,596.80

Personnel: \$40,000.00

Facilities: \$0.00

Tuition: \$38,406.00

Training Materials: \$8,210.00

Other: \$0.00

Total: \$1,952,184.80

#### 3.B. Other Workforce Training Project Funding Sources

City/County: \$0.00

Private Sources: \$0.00

Other (grants, etc.): \$0.00

Total Other Funding: \$0.00

Total Amount Request: \$1,952,184.80

#### 3.C. Please provide a detailed budget narrative:

#### Project Budget Narrative

The proposal requires \$1,952,184.80 in funding to provide initial support for the industrial machinery mechanic, welding, and UAS programs. The funding is for temporary staffing, training materials, tuition, and equipment. A temporary site logistics coordinator to receive equipment, set up and test lab equipment, and support faculty and instructional support will be hired for one year at \$40,000.00. Training materials are calculated at \$8,210.00 provide instructional aides, academic software, and instructor office materials. Tuition is \$38,406.00 which would provide initial class students funding for three core classes within their respective academic course. The total equipment costs are \$1,865,596.80 to support the industrial machinery mechanic, welding, and UAS programs.

Providing a dedicated staffing site coordinator provides the college the ability to focus on daily operations and narrows accountability and responsibility to one individual who can provide daily interaction in receiving and set up all three academic programs. The site logistics coordinator \$40,000 pay covers wages, fringes, and benefits.

Training materials covers the necessary instructional aides, software, and instructional materials needed to support the programs. Instructional aides are the necessary industrial machinery silhouettes, or other educational products which support the programs. Welding templates and design patterns can be purchased. Software to support design and development, layout, and usage will be purchased. The estimated training materials costs to support Industrial Machinery Mechanic, welding, and UAS programs is \$3,210.00. Instructional office supplies support the instructor in projects planning and execution which provide students the necessary directions about course work and lab projects. Group and lab training materials are projected to cost \$5,000.00 to support the employability skills course. The lab training materials will consist of problem solving, critical thinking, and project management type activities. Thus, these lab activities are design to entice team building and promote healthy dialogue among employees. The lab activities are designed to prepare the students for employment.

Tuition is for initial program student core course costs. The industrial machinery mechanic program tuition is for 10 students at \$246.00 per course for three core courses for a total of \$7,380.00 (10\* \$246.00 \* 3). The welding program tuition is for 15 students at \$246.00 per course for three courses for a total of \$11,070.00 (12\*\$246.00\*3). The UAV program tuition is for 12 students at \$246.00 per course for three core courses for a total of \$8,856.00 (10\*\$246.00\*3). Employability skills will be provided to initial students (estimated 37 in first semester) who shall be provided tuition at \$300 each for a total tuition cost of \$11,100.00

(37\*\$300.00). Employability skills will be provided to initial students (estimated 37) who shall be provided tuition at \$300 each for a total tuition cost of \$11,100.00.

The industrial machinery mechanic program requires specialized equipment specifically designed for learning lab environments. Learning lab equipment consist of electrical, mechatronics, electro-hydraulic, and a mobile technology workstation. A fault troubleshooting system will be purchased to allow students the basic and advance troubleshooting hands on experience needed to enter the workforce. Specialized tools like torque wrenches, micrometers, and caliper types devices need to be purchased due to current items are being used by other academic programs. Industrial Machinery Mechanic program requires \$1,264,115.00 in equipment funding. An itemized equipment list is attached (See attachment 4, Worksheet (WS) 1). The welding program requires equipment to support a basic welding course. Cutting torches, Miller XMT welding machines, gas hoses and regulators are typical equipment purchases for a welding program. The Welding program requires \$251,391.80 for equipment and tool purchases. An itemized equipment list is attached (WS 2). The UAV program requires the aerial vehicles, accessory support kits, mechanical tool sets, and workbenches. Vehicles and tools will be purchased to support six users (five students/one instructor). A protective shelter and cage is required due to the risk when students are learning how to fly drones outdoors and the Federal Aviation Administration requirements on flying drones outdoors and under personnel. The UAV program equipment costs are \$350,090.00. An itemized equipment list is attached (WS 3).

Michael D. Lucchesi, Ph.D.

Director of Grants Development