



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.

Entity Information

Name of Entity: Eastern Florida State College

Federal Employer Identification Number (if applicable): ██████████

Contact Information:

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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.

Florida Actively Collaborating with Training for Individuals in Vocational & Advanced Technology Educational Skills for Job Growth (Florida ACTIVATES), led by Eastern Florida State College with partner institution Daytona State College, seeks to build an efficient pipeline for the aerospace and advanced manufacturing industries that will create more than 450 new jobs and 125 skilled apprentices over a two-year period for our students. Jobs will be secured through a combination of short-term, two-year, and four-year training and certification programs that support the growing local industry workforce needs and builds upon the colleges' existing aerospace, aviation, welding, industrial technology maintenance, engineering technology, and computer science programs. The grant will provide funding for state-of-the-art equipment and for the development of comprehensive curriculum to address current and emerging manufacturing processes and technologies. The workforce training being developed will meet national and international industry certifications, and will help fulfill both the long and short-term skilled talent pipeline needs of the region.

The colleges have embarked upon an exemplary partnership with the Space Coast Consortium Apprenticeship & Workforce Initiative to train U.S. student apprentices with advanced equipment and training materials that meet the industry standards set by the European Qualifications Framework Europass Mechatronics Technician program. The tri-county regional partnership, including Brevard, Volusia and Flagler counties, is instrumental in developing apprenticeships, internships, incumbent worker training, university-co-ops, and on-the-job training programs. The Florida ACTIVATES consortium partners are comprised of local industry leaders such as Lockheed Martin, RUAG Space, SpaceX, ULA, NASA, Blue Origin, Craig Technologies, Embraer, Knight's Armament, Matrix Composites, Saalex Solutions, and OneWeb Satellites, to name only a few. The industry-driven Space Coast Consortium Apprenticeship & Workforce Initiative has brought together regional leaders from both traditional space/aerospace firms, as well as the exciting "New Space" generation of future space exploration and advanced manufacturing. Importantly, they also have given an equal voice to smaller local manufacturing firms which face their own unique workforce challenges.

Florida ACTIVATES, in partnership with regional manufacturers and other industry leaders, will play an important role in meeting regional workforce needs through this two-year project that will model highly effective national and international apprenticeship standards and certifications and will train students in multi-disciplinary advanced manufacturing and aerospace technologies, leading to well-paid, full-time

employment. Through Florida ACTIVATES, students will obtain “stackable credentials” including but not limited to the Manufacturing Skills Standards Credential (MSSC) Certified Production Technician (CPT); the National Institute for Metalworking Skills (NIMS) Machining Competency-based Modules and the Industrial Technology Maintenance certificate; the Packaging Machinery Manufacturers Institute (PMMI); KUKA Robotics; Siemens Mechatronics Systems Certification (Levels 1 & 2) and Computer Numerical Control (CNC) Certification; Electronics Technicians Association (ETA) International; FESTO Mechatronics and Industrial Maintenance Certification; as well as numerous SpaceTEC and CertTEC aviation and aerospace space certifications. Overall, the most current and sought-after industry certifications will be available, which will make our program participants highly marketable to numerous regional employers, now and for the rest of their professional careers.

Additionally, Eastern Florida and Daytona State currently are partners in a four-year, \$3.7 million consortium grant through a U.S. Department of Labor Florida East Coast TechHire initiative (TechHire) designed to meet local and regional workforce needs. Through Florida ACTIVATES, both institutions will build upon the TechHire efforts (2016-2020) to extend training and meet the growing demand for Industrial Technology Maintenance Mechanics, Information Technology, and Advanced Manufacturing jobs.

Key training programs central to Florida ACTIVATES
EFSC programs

- Advanced Manufacturing – Mechatronics
- Information Technology
- Aerospace Technology
- Aviation Maintenance Technology

DSC programs:

- Advanced Welding
- Manufacturing - Industrial Technology Maintenance
- Advanced Manufacturing – Mechatronics

- B. Describe how this proposal supports programs at state colleges or state technical centers.

Both Eastern Florida State College (EFSC) and Daytona State College (DSC) educate, train and provide career development and support to students to grow a technologically competent workforce that receives hands-on training, and obtains industry-standard certifications and post-secondary education degrees. These institutions combined serve more than 40,000 residents of Florida on eleven campuses providing a full range of educational programs and services from adult education to postsecondary vocational to associate and baccalaureate degrees.

About 15,000 students take courses annually on one of EFSC's four campuses in Cocoa, Melbourne, Palm Bay and Titusville or online through eLearning. Currently, EFSC is ranked #2 in the state for MSSC's Certified Production Technician (CPT) certifications, with Florida ranking #2 in the nation. EFSC has launched nearly 40 new



programs since 2012 with Bachelor Degrees, Associate Degrees and Certificate Programs in some of today's fastest-growing career fields. It boosts the local and regional economies nearly \$1.1 billion a year according to a statewide impact study. This year, Florida's State Board of Education announced annual performance ratings for the 28 colleges in the Florida College System, and EFSC received a prestigious Gold Rating for its performance.

DSC has seven locations in Volusia and Flagler counties and offers 120 certificate and degree programs designed to meet the needs of its diverse student population as well as the region's workforce needs. DSC's Bachelor of Science in Engineering Technology program was recently accredited by the Accreditation Board for Engineering and Technology (ABET) and consistently ranks nationally for its online bachelor's programs. For the last three years, U.S. News and World Report has ranked DSC among its top online bachelor programs for Veterans. DSC was ranked among the top 50 affordable public institutions in the country by the U.S. Department of Education's College Affordability and Transparency Center.

Florida ACTIVATES will support EFSC and DSC students in becoming more competitive in meeting the ever-changing technology demands of the advanced manufacturing, aerospace/aviation, and computer science industries. The colleges will expand current job placement and internship programs as well as develop an apprenticeship program in partnership with the Space Coast Consortium Apprenticeship & Workforce Initiative, which will serve as a catalyst in the creation and sustainment of a globally competitive 21st century workforce and talent pipeline. Florida ACTIVATES will partner with local businesses and industry to ensure that our workforce education program will utilize the most current industry standards and employ training delivery mechanisms that are flexible, timely, and responsive to market needs. Workforce partners include the following: Canaveral Port Authority, DRS Tactical System, Embraer Aviation, Harris Corporation, Lockheed Martin, MACK Technologies, NASA, Northrop Grumman, Rockwell, United States Air Force, Volusia Manufacturing Association, Dougherty Manufacturing, and B. Braun Medical, Inc.

Through Florida ACTIVATES, EFSC and DSC will improve and expand training opportunities in advanced manufacturing, aerospace/aviation, and computer science programs in the following ways: (1) provide expanded training programs for our students in labs supplied with state-of-the-art equipment; (2) hire additional instructors and offer training and professional development; (3) partner with industry, and career professionals to create a leading Technical Training Center of Brevard that also places our students in real jobs; and (4) provide stipends for a new apprenticeship program that leads to a college education and actual work experience.

Enabling young people to become competitive for jobs requires opportunities for many out-of-school youth and young adults to have increased access to education or training since they often lack awareness of careers, educational resources and job placement programs. This population faces many barriers including: 1) lack of

academic to career-ready skills; 2) lack of work experience, clear career pathways or connections to internships and workforce opportunities; 3) involvement with systems (foster care or criminal justice); 4) lack of social capital or relationships that encourage education; and 5) other life circumstances (financial responsibilities, unstable housing, unreliable transportation, early parenthood, mental health challenges). Low-wage incumbent workers, and unemployed young adults face the same barriers and also need additional supports.

Additionally, Florida ACTIVATES also will support non-traditional students including displaced shuttle workers, veterans, low-wage incumbent workers, the disabled, and unemployed and underemployed students who are seeking new career paths and gainful employment that provides an increase in pay and advancement in various workforce industries. These target markets will enhance the highly demanded skills they have previously acquired through advanced machining, computer science, welding and other skills following a two-year training period.

Florida ACTIVATES funding will allow the consortium to provide stronger support to more students by updating its outdated equipment and offering incentives, such as payment for certifications and tuition to participants to strengthen their ability to earn stackable credentials and obtain hands-on, performance-based skills certifications. This support system will actively ensure that participants complete Florida ACTIVATES program assessments as well as technical college courses, training, degrees and certifications. Florida ACTIVATES staff will support students with internships, apprenticeships and job placements, and follow up with graduates and employers to verify employment status, wage, and position titles. This process is ongoing and will require program data at three and six months, and one year intervals.

- C. Describe how this proposal provides participants transferable, sustainable workforce skills applicable to more than a single employer.

With cutting edge equipment, specialized curricula and dynamic instructors, workforce programs supported via Florida ACTIVATES will simulate working environments, provide hands-on training, and develop in-demand skills which are sustainable and transferable across the Florida Department of Economic Opportunity Targeted Industries. Florida ACTIVATES will deliver workforce education and training, industry standard testing, and nationally recognized certification assessments which are benchmarks for our training programs across numerous growth industries.

Mechatronics: This high-demand, emerging field, is the synergistic integration of the traditional mechanical, electrical, and computer engineering disciplines, with pneumatics, hydraulics, CNC, computer-aided design & computer-aided manufacturing (CAD/CAM), programmable logic controls (PLC), welding, and robotics to design and manufacture enhanced products, processes and systems. This field is critical to meet the ever-increasing demand for automated manufacturing skills and increase the caliber of our training capabilities, in pace with the sophistication level of

the manufacturing industry that currently exists and is being attracted to our tri-county coastal region. This includes large and medium-sized businesses across the aerospace, aviation, and defense industries, just to name a few. Utilizing state-of-art training equipment and curricula will allow our instructors and apprentice students to obtain and maintain professional industry standard certifications to stay competitive in multiple disciplines, and advance their lifelong career opportunities. They will have guaranteed jobs with the company that sponsored them through the program. Many Mechatronics Technicians go on to earn engineering degrees, often paid for by their sponsoring employer, because of their tremendous value. They, in turn, become mentors for the next generation of apprentices entering the company, perpetuating a culture of renewable skilled talent within their respective industry.

Aviation Simulation: The exploration of space is leveraged with a continuous practicum centered around the simulation of various potential problems. Aviation simulation is a state-of-the-art catalyst to real-time aeronautical and mechanical case problems that are resolved in a computer-based classroom environment. Pilots and mechanics are worth their weight in gold with skills that are sustainable and transferable to various aerospace and aviation career pathways. In a new Aviation Simulation lab, students will receive training in a 3-D Simulation equipment that features maintenance training equipment such as Aircraft Systems Courseware and Virtual Flight Deck. The first graduating class for the EFSC Aviation Maintenance Technician Program received their certificates in August 2017, thus providing highly skilled workers for the commercial aviation sector. The program is approved by the Federal Aviation Administration (FAA) for Airframe and Powerplant training.

Industrial Technology Maintenance: ITM Mechanics are in high demand across the full range of targeted industries within Florida. Students can select specific skills needed for advancement within their current work setting or work toward certification across all nine duty areas for the greatest breadth and transferability of skill and experience. Each duty area requires approximately 100 hours of training and includes core safety and equipment knowledge. The core duty areas are the following:

- Maintenance Operations
- Basic Mechanical Systems
- Basic Hydraulic Systems
- Basic Pneumatic Systems
- Electrical Systems
- Electronic Control Systems
- Process Control System
- Maintenance Welding
- Maintenance Piping

Welding Technology: The Welding Technology program provides both the theoretical and practical experience necessary to develop a foundation in the skills of welding across a range of industry settings and materials. Graduates are employable in diverse fields including materials engineering, robotics, lasers, computer programming,



and a range of advanced manufacturing operations. Instructional programs operate according to national standards established by the American Welding Society, among others.

EFSC has been asked repeatedly by our regional industry partners to offer shorter-term, intermediate-skill level training in “wire welding” [gas metal arc welding (GMAW) / metal inert gas (MIG)] in order to fill critical job shortages. With Florida ACTIVATES, we will create a separate twenty-five (25) booth wire welding lab and hire a full-time faculty member to teach a semester welding curriculum. Graduates of this course, could immediately seek employment in the local/regional community, producing more than 100 new jobs per year.

DSC faces a similar demand for skilled welders, increasingly for those with skills beyond the entry level Welding Technology I currently available. With support from Florida ACTIVATES, DSC will develop and implement an Advanced Welding Technology program to ensure that regional employers have access to employees with the specialized skill and level of proficiency required.

Aerospace Technology: Aerospace Technology is an exciting field of study that prepares graduates for entry-level positions in the aerospace and aeronautics industry. Graduates also will qualify for many applied technology jobs such as testing, fabrication, assembly, repair and manufacturing. EFSC’s Aerospace Technology lab trains student in the state-of-the-art technologies required of both the traditional aerospace and the exciting “new space” industries. A recent program graduate was selected as one of the very first U.S. hires for the Swiss component supplier, RUAG Space, when they built a local advanced manufacturing facility in Titusville to support the world’s first heavily automated satellite manufacturing facility by OneWeb Satellites, outside Kennedy Space Center. Students who are employed as aerospace technicians will assemble, service, test, operate, and repair systems associated with both expendable and reusable space launch vehicles, payloads, related laboratories, and ground support equipment.

Information Technology: Students graduating from the consortium’s programs can enter careers including Software Developer, Database Administrator, Web Developer, Computer Forensics Technician and Network Security Analyst, Cybersecurity and many others. The occupations listed are among the fastest growing in the project service area. Information Technology permeates all industry areas. Individuals trained in these occupations design, install, and maintain the systems that support production planning, logistics, communications, and R&D in a manufacturing company. Increasingly, software and sensors are being embedded in a wide array of equipment to provide increased functionality and support a “smart factory” environment through a network or cloud infrastructure.

Advanced Manufacturing. EFSC recently received a new automated MAZAK VC-500C from our U.S. Department of Labor TechHire grant, which is used for our CNC Machining training program. This massive machine is described as a “simple but innovative VC-500C vertical machining center with a 3-axis table brings advanced

technology and production value to accurate small parts processing for a variety of industries.” The program trains students for careers in the manufacturing, machining, and engineering industries. The College needs to provide training for our instructors on this new piece of equipment, and continued professional development to stay abreast of what’s being used in the industry and to develop curriculum for training programs.

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.

EFSC and DSC are members of the Florida College System (FCS), a division of the Florida Department of Education (FLDOE). As FCS members, the colleges align with the FCS goals to “respond quickly and efficiently to meet the demand of employers by aligning certificate and degree programs with regional workforce needs. With an array of programs and services, our colleges serve individuals, communities and the state with low-cost, high-quality education opportunities.”

Stepping Up: A Strategic Plan for the Florida College System, 2012-13 to 2017-18
EFSC and DSC align with the FCS Strategic Plan as follows: (a) Providing lower level undergraduate instruction and awarding associate degrees; and (b) Preparing students directly for careers requiring less than baccalaureate degrees. This may include preparing for job entry, supplementing skills and knowledge, and responding to needs in new areas of technology. Career education in a Florida College System institution consists of career certificates, credit courses leading to associate in science degrees and associate in applied science degrees, and other programs in fields requiring substantial academic work, background, or qualifications.

The mission of the FCS is to provide access to high-quality, affordable academic and career educational programs that maximize student learning and success, develop a globally competitive workforce and respond rapidly to diverse state and community needs. In regards to this proposal, Florida ACTIVATES educational partners align with this mission by establishing a goal to maximize student learning and career success by developing industry-standard programs that will prepare students directly for high-demand careers in a globally competitive workforce.

The FCS also continues to promote college awareness and preparation activities for high school students seeking to enter a FCS institution, and also provide access and expand dual enrollment, where capacity allows. The FCS addresses the current challenges of the nation’s and state’s economic situation in that the postsecondary system is not producing enough certificate and degree graduates who can fill the vacancies available as new jobs surface and require workers to deal with increasing use of emerging technologies and navigate the complexities of the 21st century



workplace. A recent report suggests that community colleges can benefit from partnering with employers for guidance in offering their students an education with relevant skills for the workplace. The FCS, with its high productivity and historic mission of responding to local workforce needs, is well positioned to provide individuals with the in-demand skills critical to economic recovery.

Florida ACTIVATES aligns with the FCS and Enterprise Florida goals by partnering with local CareerSource boards, Economic Development groups, public schools, manufacturing associations, and others to ensure programs are up-to-date with industry standard programming, and to assist the project in recruiting students to our programs and placing students in high-demand careers.

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.

a. Promoting economic opportunity by enhancing EFSCs workforce training

A study that was undertaken through a partnership with CareerSource in Central Florida, Brevard, Flagler, Volusia, and the Florida High Tech Corridor Council, found that the manufacturing industry had the greatest number of open and new positions. Although, the problem that the manufacturing and some other industries were having was difficulty hiring to fill the positions. One of the top reasons was a lack of skilled applicants.

Companies generally provide a significant investment in training, and they often partner with educational institutions to advise on curriculum development, and to make equipment recommendations. Florida ACTIVATES is working closely with manufacturing, mechatronics, welding, aviation and other industries to enhance training programs with new equipment and updated workforce training. This will improve our students' ability to be qualified and certified for emerging economic opportunities, and help them to fill occupations that are in demand which will provide a better future for them, and become highly skilled employees.

b. Number of jobs anticipated to be created

Florida ACTIVATES supports industry leaders in filling highly demanded jobs that they have created. This project focuses on developing highly skilled and credentialed students to meet the growing regional demand for existing and expected job openings. Our project director will work closely with our Space Coast Consortium consultant to maintain relationships with industry leadership, CareerSource and EDC to place 450 students in jobs or internships, and 125 in apprenticeships over a two-year period.

c. Economic impact on the community, region, or state

Partnering with companies in multiple industries, including manufacturing, aerospace, economic development, human resources, technology and others to provide trained and certified staff, guarantees that economic growth in the community, region and state will continue. In addition to its education and training programs where students earn certificates and degrees, EFSC'S SpaceTec program provides additional national and international performance-based certifications while partnering with nation-wide consortium of community and technical colleges, universities, business and industry organizations, and government agencies. These certifications help students to earn stackable credentials that make them more competitive and qualified when applying for a job. Having qualified employees for industries in the east coastal region will lead to many, more jobs being filled and a stronger economy in Brevard County and throughout Florida. EFSC also partners with the Economic Development Commission for certification of technicians for manufacturing positions. This grant will impact Brevard County's economy by increasing the skilled labor pool, which would assist new and developing industries and create job stability. Eastern Florida State College's economic impact infuses \$1.1 billion annually into the Brevard County and Central Florida economies through direct spending and our graduates' higher wages and skills.

Daytona State College's impact on the regional economy is estimated at \$700 million annually. The College recently partnered with area business and industry leaders to identify trends in regional economic climate and proactively identify ways to ensure a skilled workforce to meet



current and future demand. The new Workforce Advisory Board, comprised of regional economic development officers and leaders from a variety of industry sectors, is intended to comprehensively assess the area's economic development and skills-training needs, thereby enabling the College to respond swiftly as workforce shifts and demands arise.

The Central Florida Talent Gap Analysis report recognized specific programs at colleges and universities in the region that offer businesses a greater opportunity to connect to trained talent for careers in emerging technologies. One program listed in that report is the Aerospace Technician program at EFSC, and another is the Modeling, Simulation and Robotics program at Daytona State College. New training programs such as these will impact local new and expanding industries including Boeing, Lockheed Martin, Northrop Grumman and others such as Outdoor Robotics – Drone & UAS Technology, which are reviving the region and increasing the demand for skilled workers. A few of the occupations that are impacted include the following:

- Aviation mechanics which is in extremely high demand, elevating job growth and marketability for mechanics, graduating with salaries of \$30,000 with no experience, increasing to \$75,000 following three years of experience.
- Graduating Mechatronics Technician apprentices will be able to earn salaries of \$60,000 - \$70,000 after completing a four-year training program.
- The annual salary for the median 50% of engineering technologists was between \$59,440 and \$ 90,560.

An article entitled, Space Business and Economic Engine for Florida, stated that the growth in the space business arena impacts all of Florida, not just the Space Coast. Today more than 150,000 Floridians are employed by more than 19,000 aerospace companies generating in excess of \$20 billion in annual sales and revenues. All 67 counties contribute to this multi-billion dollar industry. The aerospace product and parts manufacturing sector is the largest manufacturing segment in Florida with an average wage of \$77,343.

d. Associated metrics used to measure the success of the proposed training

The following metrics will be used to measure success of training for the Florida ACHIEVES grant:

- Number of students enrolled in target programs
- Number of students rolled over from TechHire
- Number of credit hours completed
- Number of credentials earned
- Number placed in jobs, internships or apprenticeships
- Number retained in program
- Number trained on new equipment

2. Additional Information:

A. Is this an expansion of an existing training program? Yes No

If yes, please provide an explanation for how the funds from this grant will be used to enhance the existing program.

EFSC and DSC are partners in the \$3.7 million Florida East Coast TechHire program. The U.S. Department of Labor grant, awarded for 2016 – 2020, is designed specifically to address employer needs in two growing industry sectors – advanced manufacturing and information technology. TechHire uses accelerated workforce training with multiple entry and exit points and a seamless



system of stacked credentials to prepare participants for career pathways in Advanced Manufacturing and Information Technology occupations. The grant is focused on training youth ages 17-29, as well as un/underemployed persons and incumbent workers of any age who seek additional workplace skills.

TechHire provides short-term workforce training that combines contextualized classroom occupational training with preparation for industry certification exams. Through the Advanced Manufacturing pathway, TechHire participants gain foundational level skills and preparation for the MSSC Certified Production Technician (CPT) certification exam. They can proceed to training in Industrial Technology Maintenance leading to certifications in one of 4 National Institute for Metal Working Skills (NIMS) Duty Areas.

Students who enter TechHire through the Information Technology pathway complete short-term training modules in hardware and software leading to certifications from Microsoft and other national employer standards. They can proceed to advanced training in IT and further certifications as well as associate and baccalaureate degree programs.

Florida ACTIVATES can encourage participants to move seamlessly from one program to another. By enrolling in Florida ACTIVATES, a TechHire graduate will have access to additional training by virtue of the expanded training programs the project will support. Those in advanced manufacturing will have access to training across all nine NIMS Duty Areas making them far more experienced and valuable employees for regional industry. They also will have access to new training in Mechatronics, which requires higher level skills than the NIMS training areas, and through which they will learn to think and work effectively in a dynamic set of systems. Participants who complete the Information Technology pathway available in TechHire, can enter high tiered training/programs through Florida ACTIVATES. Participants who complete the Information Technology pathway available in TechHire, can enter higher tiered certification programs, such as Certified Ethical Hacker (CEH), Certified Information Systems Security Professional (CISSP), and Microsoft Certified Solutions Expert, which a participant may not have attained during the tenure of TechHire. This will also assist in providing previous TechHire participants with applicable training per industry advances and credentials they were unable to attain, given the constraint of time. Additionally, the development of four EFSC computer science labs affords students an opportunity to advance in additional information technology programs.

The training with stackable certificates available within Florida ACTIVATES is similar to the TechHire approach, allowing the participant to remain in training through a complete program or to achieve the certifications needed to enter or advance in a specific occupational setting.

In 2013, EFSC collaborated with the \$3 million Xcel It consortium to secure a \$1.5 million U.S. Department of Labor Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant. The EFSC Xcel It program has trained traditional and non-traditional students as well as displaced shuttle workers, veterans, and engineers for high-wage jobs within the cybersecurity and



information technology industries. The program partnered with companies to develop student talent through internships and permanent employment. At that time, the county's job market had been negatively impacted when jobs were outsourced overseas and layoffs occurred when NASA's Space Shuttle program ended in Cape Canaveral. The goal was to retrain this demographic of workers, including individuals with advanced technical skills, in the emerging field of cybersecurity with new skills and professional opportunities. The program, which is closing out, focuses on cybersecurity in the traditional network of internet security, but also comprises other rapidly developing technologies including Voice over Internet Protocol (VoIP), digital forensics, virtualization, and mobile applications development. Since the inception of the Xcel It grant, the cybersecurity discipline and its definitions, scope and technologies have greatly expanded.

TRAINING PROGRAM EXPANSION

EFSC

Aviation/Aerospace: The Florida ACTIVATES project will allow EFSC to expand its capacity by purchasing a new training simulator. There is a great need for simulation equipment for the EFSC Aviation Mechanics program, which would save thousands of dollars in fuel for current equipment which is being used train students in eight to 12 classroom settings. Funding will allow this program to also provide new state-of-the-art sheet metal brakes and a power shear to improve training for the Aviation Mechanics program which already has courses in these areas.

This equipment would support the Florida Growth Fund grant in the areas of Modeling, Simulation and Training; Aircraft and Aircraft Parts Manufacturing; Maintenance Repairs and Overhaul of Aircrafts; Space Vehicles and Guided Missile Manufacturing. Florida ACTIVATES will further expand the aviation maintenance technician program to fill courses to a maximum 25 students per classroom setting.

Mechatronics: EFSC has partnered with industry experts to determine the best approach to expanding our program for Mechatronics. With funding from this grant, EFSC will offer students training on the newest state-of-the-art equipment that aligns with the latest industry standards. Equipment that will be purchased includes courseware, software, robotics equipment and certifications that will allow students to gain a complete understanding of the various skills that are required to operate a mechatronics system.

Welding: Funding will be used to renovate the classrooms for our welding program, and to upgrade and expand it to include 25 new copper wiring welding booths.

Information Technology: Funding will be used for a Mechatronics lab and four computer science labs to expand our information technology program.

DSC

Mechatronics: The Associate of Science in Engineering Technology (ASET) program is currently offered at Daytona State with three planned specializations in



advanced manufacturing - Additive Manufacturing, Mechatronics, and Robotics/Automation. Additive Manufacturing is currently funded and scheduled to begin in 2018. The Florida ACTIVATES program will allow DSC to implement the Mechatronics specialization ahead of schedule to meet industry demand. Funds will be used to purchase modular training equipment that replicates factory automation components, such as a conveyor belt station, processing station, robotics handling station, and warehousing station, which provide essential hands-on training in mechatronics.

Most DSC project costs for Florida ACTIVATES are non-recurring expenses designed to allow the program to be established and operational within the year as well as personnel and instructional costs for the first year of the project. ITM training costs are included in the budget to allow easier access for both unemployed and incumbent workers who need upskilling to advance in their employment. Ongoing instructional and personnel costs are expected to be paid by the college.

Welding: The project proposes to expand the current Welding Technician I program to include Advanced Welding training, including Fusion Welding, in response to industry demand. The funds will be used to purchase additional equipment and to renovate a classroom facility since the current program is at full capacity.

ITM: ITM training is currently offered at Daytona State College through the Florida East Coast TechHire grant program, funded (2016-2020) by the U.S. Department of Labor, Education and Training Administration. Training in four duty areas is provided through TechHire and the Florida ACTIVATES program will allow the College to provide training on the five remaining duty areas. Funding will be used to purchase equipment, pay for instruction and educational materials.

- B. 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?

The Florida ACTIVATES program aligns with Florida's Targeted Industries as follows: Clean Tech, InfoTech, Aviation/Aerospace, Homeland Security/Defense, Financial/Professional Services, Emerging Technologies, Electronics, Other Manufacturing, Technology, and Modeling, Simulation and Training.

- 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 [Demand Occupation Lists here.](#))

Yes No

If yes, please indicate the occupation(s) with which the proposal aligns.
If no, with which occupation does the proposal align?



The Florida ACTIVATES program aligns with the following occupations on the Statewide/ Regional Demand Occupation Lists:

- 151121 Computer Systems Analyst
- 151133 Software Systems/ Applications
- 151141 Database Administrator
- 151142 Network and Computer Systems Administrators
- 151151 Computer User Support Specialist
- 151152 Computer Network Support Specialists
- 172112 Industrial Engineer
- 435011 Cargo and Freight Agents
- 472098 Security & Fire Alarm Systems Installers
- 493011 Aircraft Mechanics & Technicians
- 499021 Heating, AC and Refrigeration Mechanics & Installers
- 499041 Industrial Machinery Mechanics
- 514041 Machinists
- 514121 Welders, Cutters, Solderers, & Brazers

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.

EFSC

Infotrac/Technology: Training is delivered in classrooms and some courses are available through our e-learning computer-based option. Classes are taught by committed instructors on all four campuses – Cocoa, Titusville, Palm Bay and Melbourne. EFSC has over 20 computer labs that are available for instruction and student use, including an AutoCad Lab, Graphics Lab, Autotronics and Cisco Labs.

Aviation/Aerospace: Training for this program meets the stringent requirements of the FAA (Federal Aviation Administration). Aviation and aerospace classes are classroom-based and taught at the Cocoa Campus and at the Orlando Melbourne International Airport. The Aviation Maintenance Technician program at the airport provides students with hands-on experience with airplanes in a commercial aviation setting. Skills are transferable for jobs with companies such as Embraer, Northrop Grumman, Kennedy Space Center, SpaceX, Blue Origin, Boeing and other companies. (See video at <https://www.youtube.com/watch?v=tAXwKSAqsV0&webm=1>)

Advanced Manufacturing/Mechatronics: Training for programs in this area are delivered at the Cocoa, Palm Bay and Airport locations. Courses include, but are not limited to Welding, CNC Machinist/Fabricator, Engineering Technology, Industrial Management Technology, AutoCAD Foundations Technology, among others. These trainings are classroom-based since students learn both theory and get the crucial hands-on experience needed to be competitive in the industry. Classes take place in our 8,500-square foot STEM facility, with classrooms, and four specialized labs for customized training. The Advanced Manufacturing Center also has classrooms, fully equipped labs and equipment for hands-on instruction.

DSC

Welding: Training will be delivered in person on Daytona State College campuses. Training is currently held on the main campus in Daytona Beach. The ACTIVATES project would enable expansion to the Advanced Technology College also in Daytona Beach. Opportunities to expand to the west side of Volusia County or elsewhere in the service region are being explored.

ITM: Training is delivered in-person at the Advanced Technology College in Daytona Beach. Some instructional material is provided to students via online deliver using companion software specific to the NIMS training modules.

Mechatronics: The ASET program is taught using online, in-person, and hybrid delivery modes to allow for flexible access to students. General education courses taught in year one of the



program are available on all DSC campuses. Courses that incorporate the specific mechatronics equipment training will be conducted at the Advanced Technology College.

E. Indicate the number of anticipated enrolled students and completers.

EFSC

Information Tech

(2017-18) 150 enrollees, 75 completers

(2018-19) 155 enrollees, 77 completers

Aviation/Aerospace

(2017-18) 70 enrollees, 35 completers

(2018-19) 75 enrollees, 38 completers

Manufacturing

(2017-18) 110 enrollees, 55 completers

(2018-19) 115 enrollees, 57 completers

Welding

(2017-18) 20 enrollees, 10 completers

(2018-19) 25 enrollees, 12 completers

DSC

Welding

(2017-18) 20 enrollees, 18 completers

(2018-19) 20 enrollees, 18 completers

Industrial Technology Maintenance Mechanics

(2017-18) 120 enrollees, 84 completers

(2018-19) 120 enrollees, 84 completers

Mechatronics

(2017-18) 20 enrollees, n/a completers

(2018-19) 40 enrollees, 16 completers

Total Enrolled

(2017-18) 510 enrollees; 277 completers

(2018-19) 550 enrollees; 302 completers

Grand total: 1,060 enrollees; 579 completers

F. Indicate the length of program (e.g., quarters, semesters, weeks, etc.), including anticipated beginning and ending dates.

Begin Date: 11/01/2017 End Date: 12/31/2019

G. Describe the plan to support the sustainability of the proposal.



The purpose of Florida ACTIVATES is to enhance our workforce training capabilities in order to create new jobs (short term), while also continuing to meet the growing skilled talent pipeline needs of our regional industry partners (long term). In the future, Florida ACTIVATES is committed to building a sustainable apprenticeship program in the project service area, potentially through area high schools that feed directly into EFSC and DSC. If implemented this model would align Florida ACTIVATES well for future Federal apprenticeship funding that is supported by the Administration with a national \$200 million commitment.

There is strong local support for this initiative. A similar apprenticeship program has been established in the Tampa region, with the guidance of those involved here, whereby three counties each contributed a set dollar amount, which when combined sustained the program for three full years. Considering the size of the region that our initiative will be serving, spanning three full coastal counties, and dozens of municipalities, there is a tremendous resource base potential available to sustain this program following initial funding and implementation.

Considering the size of some of our regional industry partners, there is a very realistic probability of corporate sponsorships and/or matching sustainability funds. During a recent community stakeholder meeting, a high-ranking representative from a major Brevard County defense contractor stated, unsolicited, that if initial funding from the state were procured, he was relatively certain that the corporate leaders at Lockheed Martin, Boeing, and Northrup Grumman (to name a few who were in the room) would certainly “do their part” to help sustain such a worthwhile program that they all would benefit from long-term.

Finally, once this equipment and curricula are in place, it can also be used regularly for ad hoc & contract training during “down times” when the facilities are not actively engaged in training the program participants. This would include customized corporate training, aviation simulator hours, and other short-term, revenue-producing training activities. All the program revenue generated from these activities, which has the potential to be substantial, could be earmarked towards program sustainability, potentially creating a self-sustaining, or only slightly subsidized revenue model within the initial grant program period.

- H. 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.

EFSC

Infotech

Bachelor of Applied Science (BAS): Computer Information Systems Tech (11011040101)

Associate in Science Degree: Computer Information Technology (1511020307); Networking Systems Technology (051100111)

College Credit Certificates (CCC): Information Technology Support Specialist (0511010311); Oracle Certified Database Administrator (0511020307); Networking Server Administrator (00511100112); and



Network Support Technician (00511100121)

Aviation/Aerospace

Associate in Science Degree: Aerospace Technology (0615080100)

Postsecondary Applied Vocational Certificates: Aircraft/Aviation Airframe Mechanics (0647060700, 0647060703); Aviation Powerplant Mechanic (647060801); and Applied Welding Technologies (648050802)

Manufacturing:

Associate in Science Degree: Industrial Management Technology (1652020501); Engineering Technology (1615000001); Transportation and Logistics (1652020301); Drafting & Design Technology (0615130102)

College Credit Certificates: Engineering Technology Support Specialist (0615000007; Applied Technology Specialist (0615061203); Drafting & Design Tech (0615130101); AutoCAD Foundations Technology (0615130204); and CNC Machinist/Fabricator (0648051002)

DSC

Welding (48.0508)

Post-Secondary Applied Vocational Certificate – Applied Welding Technology ((48.0508)

ITM (47.0303)

Vocational Certificate – Certified Production Technology, Industrial Mechanics and Maintenance Technology

Mechatronics (15.0000)

College Credit Certificates: Engineering Technology Support Specialist; Applied Technology Specialist; Drafting & Design Technology; AutoCAD Foundations - Engineering

Associate of Science Degree: Engineering Technology

Bachelor of Science Degree: Engineering Technology



I. Does this project have a local match amount?

Yes No

If yes, please describe the entity providing the match and the amount.

Daytona State College is leveraging its U.S. Department of Labor TechHire program, which includes Eastern Florida State College as a consortium member, and other grants and sources including instructional and personnel costs beyond year one.

J. Provide any additional information or attachments to be considered for the proposal.

The project budget and full project narrative, which includes letters from the Volusia County School District, area industries and college presidents are attached.

3. Program Budget

Estimated Costs and Sources of Funding: Include all applicable workforce training costs and other funding sources available to support the proposal.

A. Workforce Training Project Costs:

Equipment	<u>\$ 2,531,808</u>
Personnel	<u>\$ 343,081</u>
Facilities	<u>\$ 400,000</u>
Tuition	<u>\$ 221,072</u>
Training Materials	<u>\$ 0</u>
Other	<u>\$ 294,059</u>
Total Project Costs	<u>\$ 3,790,020</u>

Please Specify:

(Includes Indirect, assessments, consulting, training, certification exam fees, and student travel subsidy.)

B. Other Workforce Training Project Funding Sources:

City/County	<u>\$ 0</u>
Private Sources	<u>\$ 0</u>
Other (grants, etc.)	<u>\$ 0</u>
Total Other Funding	<u>\$ 0</u>

Please Specify:

Total Amount Requested \$ 3,790,020

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.

- C. Provide a detailed budget narrative, including the timing and steps necessary to obtain the funding, how equipment purchases will be associated with the training program, if applicable, and any other pertinent budget-related information.

BUDGET NARRATIVE

EQUIPMENT

Eastern Florida State College Equipment

Mechatronics - Equipment to be used for Mechatronics training in NIMS and other courses and certifications includes the synergistic integration of the traditional mechanical, electrical, and computer engineering disciplines, with pneumatics, hydraulics, CNC, computer-aided design & computer-aided manufacturing (CAD/CAM), programmable logic controls (PLC), welding, and robotics to design and manufacture enhanced products, processes and systems. Total - \$700,000

Mechatronics Lab - Equipment to be used for Mechatronics training lab courses at EFSC. Total - \$32,264

Welding Booths - Equipment to be used for welding courses including 25 wire welding booths. The Welding Technology program provides both the theoretical and practical experience necessary to develop a foundation in the skills of welding across a range of industry settings and materials. Total - \$484,342

Flight Simulation Training Device - Flight simulation training equipment will be used in Aviation Maintenance Technician program. Aviation simulation is a state-of-the-art catalyst to real-time aeronautical and mechanical case problems that are resolved in a computer-based classroom environment. Total - \$391,000

Power Shears - Hydraulic Power Shears will be used in Aviation Maintenance Mechanic program. 1 x \$28,696= \$28,696. Total - \$28,696

Sheet Metal Box and Pan Brakes - Sheet Metal Box and Pan Brake Aviation will be used in Aviation Maintenance Mechanic program. 2 x \$4,157.23 each = \$11,439. Total - \$11,439

Computer Science Labs - Computer labs will be used in computer sciences programs on EFSC's four campuses in four cities. Students graduating from the consortium's programs can enter careers including Software Developer, Database Administrator, Web Developer, Computer Forensics Technician and Network Security Analyst, Cybersecurity and many others. Individuals trained in these occupations design, install, and maintain the systems that support production planning, logistics, communications, and R&D in a manufacturing company. 4 x \$50,000 each = \$200,000. Total - \$200,000
EFSC Equipment Subtotal - \$1,847,741

Daytona State College Equipment

Amatrol NIMS ITD Training - NIMS ITD training stations for Duty Areas 3,4,7,8, 9. Total - \$209,998



FESTO Mechatronics Training - Mechatronics training components for transport, incoming goods, processing, assembly, warehouse, outgoing goods. Total - \$327,500

Advanced Welding - Welding Technology advanced training equipment. Total - \$146,569

DSC Equipment Subtotal - \$684,067

Total Equipment - \$2,531,808

PERSONNEL

Eastern Florida State College Personnel

Program Director - Oversees daily activities of Florida ACTIVATES grant. Responsible for quarterly reports, budget oversight etc. Full-time. 40 hours per week. Fringe - FICA (7.65%); Retirement (7.92%); Life Insurance, (.031%); Worker's Comp (1.19%) for a total of 17.07% of salary. Health - \$7,020 Dental - \$402.96 - \$60,000 salary + 10,242 + 7,020 + 402.96= \$77,665. Total \$77,665

Welding Instructor - Welding Instructor - Full-time. 40 hours @ \$22 per hour. Fringe - FICA (7.65%); Retirement (7.92%); Life Insurance, (.031%); Worker's Comp (1.19%) for a total of 17.07% of salary. Health - \$7,020 Dental - \$402.96 \$47,000 Salary + \$8,023 + \$7,020 Health + \$402.96 Dental = \$62,446 Total - \$62,446

CNC Instructor - Machining Instructor - Full-time - 40 hours @ \$20 per hours. Fringe - FICA (7.65%); Retirement (7.92%); Life Insurance, (.031%); Worker's Comp (1.19%) for a total of 17.07% of salary. Health - \$7,020 Dental - \$402.96. \$43,000 + \$7,340 Fringe + \$7,020+ Health + \$402.96 Dental = \$57,763 Total - \$57,763

EFSC Personnel Total - \$197,874

Daytona State College Personnel

Welding Faculty - Curriculum Development by assigned faculty - 40 hours @ \$20 per hr (non-instructional rate): Total - \$800. Fringe- FICA (7.65%); Retirement (7.92%), for a total of 15.57% of salary. \$800 + \$125 Fringe = \$925 Total \$925

Welding Faculty - Instructor – Full-time. Instructor base salary = \$55,000. Fringe - FICA (7.65%); Retirement (7.92%), Life Insurance (0.48%); Disability (0.22%), for a total of 16.27% of salary. Health and Wellness- \$5,592. \$55,000 salary + \$8,949 Fringe + \$5,592 Health and Wellness = \$69,541 Total \$69,541

Mechatronics Faculty - Curriculum Development by assigned faculty - 25 hours per course @ \$20 per hr. x 9 courses: Total - \$4,500. Fringe- FICA (7.65%); Retirement (7.92%), for a total of 15.57% of salary. \$4,500 + \$700 Fringe = \$5,200 Total \$5,200

Mechatronics Faculty - Instructor – Full-time. Instructor base salary = \$55,000. Fringe- FICA (7.65%); Retirement (7.92%), Life Insurance (0.48%); Disability (0.22%), for a total of 16.27% of salary. Health and Wellness- \$5,592. \$55,000 salary + \$8,949 Fringe + \$5,592 Health and



Wellness = \$69,541 Total \$69,541

DSC Personnel Total - \$145,207

Total Personnel - \$343,081

FACILITIES

Eastern Florida State College Facilities

Welding Room Renovations - Renovate welding room to include 25 welding booths where students will receive instruction in wire welding. Total - \$200,000

Daytona State College Facilities

Classroom Renovation - Instructional space in Bldg. 520 for advanced welding.
Total - \$200,000

Total Facilities - \$400,000

TUITION/LAB FEES

EFSC Tuition

Mechatronics Training - Continuing Education course for Mechatronics. NIMS training. (/Cost per student) 55 x \$500 per student = \$27,500 Total - \$27,500

Aviation Airframe Mechanics - Continuing Education course for Aviation Airframe Mechanics tuition, materials, assessment exams @ \$3,500 per students per training session x 25 = \$87,500. Total - \$87,500

EFSC Tuition/Lab Fees Subtotal - \$115,000

DSC Tuition

CPT Course - Continuing Education course to gain CPT certification - tuition, books/materials, assessment exams @ \$959 x 48 students. Total - \$46,032

Industrial Technology Maintenance - Continuing Education course for NIMS Duty Areas: tuition, materials, assessment exams @ \$745 x 12 students per cohort x 6 cohorts. Total - \$53,640

Remediation Courses - CPT and ITM remediation courses will be offered based on pre-assessment scores. 40 hours of instruction x \$40 per hour x 4 courses per year. Total - \$6,400

DSC Subtotal Tuition/Lab Fees - \$106,072

Total Tuition/Lab Fees - \$221,072



TRAINING MATERIALS

EFSC Training Materials – N/A – Included with Equipment Costs - Total - \$0

DSC Training Materials – N/A – Included with Equipment Costs – Total - \$0

Total - \$0

OTHER

EFSC Other

Kamm Consulting - Providing Mapping of German IHK Standard & Curriculum to US standards. \$4,500 per month x 12 = \$54,000 x 1 yrs. = \$54,000 Total - \$54,000

Assessment - Assessment of participant skill level prior to program enrollment. \$75 per participant x 260 assessments = \$19,500 Total - \$19,500

Career Source Brevard Training/Certifications - CSB will provide training in Certified Production Technician (CPT) course/certificate and perhaps the MSSC Certified Logistics Technician (CLT) course/certifications. Total - \$55,000

Certification Exam Fee - Certification exams for low-income students \$175 (avg) cost x 100 = \$17,500 Total - \$17,500

EFSC Other Total - \$146,000

DSC Other

Assessment - Assessment of participant skill level prior to program enrollment \$75 per participant x 120 assessments. Total - \$9,750

Student Travel Subsidy - Vouchers for public transport, subsidies for private ride share - \$250 annually for maximum of 40 eligible students. Total - \$10,000

Certification Exam Fee - Certification exams for low-income students \$175 (avg) cost x 50 = \$8,750 Total - \$8,750

DSC Other Subtotal - \$28,500

Total Other - \$174,500

TOTAL DIRECT - \$3,670,461

INDIRECT COST

EFSC - \$69,182

DSC Indirect – \$50,377

Total Indirect - \$119,559



PROJECT TOTAL

EFSC Total - \$2,575,797

DSC Total - \$1,214,223

FLORIDA ACTIVATES TOTAL - \$3,790,020

Timeline: Florida ACTIVATES Job Growth Program

Start Up: November 2017 - February 2018: Grant award procedures implemented; project management plan developed; internal budgets established; personnel hired; equipment purchases out for bid; outreach and recruitment plans for apprenticeship/internships and job placements developed; industry employers and CareerSource plans developed.

Implementation (Phase 1): March 2018-July 2018: Equipment ordered and received; instructors' training materials received; curriculum development completed; renovation completed; student enrollment in ACTIVATES and assessment begin; certifications needs assessment completed; outreach and recruitment begin; students are referred to CareerSource to prepare for interviews; and industry employers needs assessment/commitment completed; interviews with industry partners begin.

Implementation (Phase 2): August 2018 – December 2018: Equipment in place and instructors continued education continues; students trained on new equipment; students recruited for Fall 2018-19 participation in ACTIVATES programs; students who complete TechHire program are rolled over into ACTIVATES program; outreach and recruitment continue; student referral to CareerSource continues; and students continue interviewing for apprenticeship/internships and job placements; assess ACTIVATES program metrics and report to the Florida Job Growth Grant Fund, industry partners and others.

4. Approvals and Authority

- A. If entity is awarded grant funds based on this proposal, what approvals must be obtained before it can execute a grant agreement with the Florida Department of Economic Opportunity (e.g., approval of a board, commission or council)?

EFSC

Eastern Florida State College President James Richey approves all grants and contracts.

DSC

The District Board of Trustees for Daytona State College approves all grants and contracts.

- B. If approval of a board, commission, council or other group is needed prior to execution of an agreement between the entity and the Florida Department of Economic Opportunity:
- i. Provide the schedule of upcoming meetings for the group for a period of at least six months.



DSC Board meeting dates are: September 14, 2017; October 19, 2017; November 16, 2017; December 14, 2017; January 18, 2018; February 22, 2018; March 22, 2018; April 19, 2018 and May 17, 2018.

- ii. State whether that group can hold special meetings, and if so, upon how many days' notice.

DSC District Board of Trustees must provide 14 days' advance notice to hold a special meeting.

- 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 documents, etc.



I, the undersigned, do hereby certify that I have express authority to sign this proposal on behalf of the above-described entity.

Name of Entity: Eastern Florida State College _____

Name and Title of Authorized Representative: Dr. James H. Richey, President _____

Representative Signature: James H. Richey _____

Signature Date: 8/29/2017 _____