



## 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: Miami Dade College

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

#### Contact Information:

Primary Contact Name: John Wensveen, Ph.D.

Title: Vice Provost of Academic Schools

Mailing Address: 300 NE 2nd Avenue, Rm 1448

Miami, FL 33132

Phone Number: 305-237-7296

Email: jwensvee@mdc.edu

### **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.

Miami Dade College Targeted Industries EcoSystem (MDC TIES)  
[Please see attached document for detailed description.]

---

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

[Please see attached document for detailed description.]

---

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

[Please see attached document for detailed description.]

---

- 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.

[Please see attached document for detailed description.]

---

- 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.

[Please see attached document for detailed description.]

---

**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.

[Please see attached document for detailed description.]

---

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?

[Please see attached document for detailed description.]

---

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?

[Please see attached document for detailed description.]

---





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.

[Please see attached document for detailed description.]

---

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

[Please see attached document for detailed description.]

---

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

Begin Date: 10/01/2017                      End Date: 09/30/2017

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

[Please see attached document for detailed description.]

---

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.

[Please see attached document for detailed description.]

---



I. Does this project have a local match amount?

Yes  No

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

N/A

---

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

[Please see attached documents.]

---

### 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	\$ 5,418,861		
Personnel	\$ 236,913		
Facilities	\$ 2,000,000		
Tuition	\$ 1,500,000		
Training Materials	\$ 1,998,733		
Other	\$ 2,192,000	Please Specify:	attach
<b>Total Project Costs</b>	<b>\$ 14,211,904</b>		

B. Other Workforce Training Project Funding Sources:

City/County	\$ 0		
Private Sources	\$ 0		
Other (grants, etc.)	\$ 0	Please Specify:	
<b>Total Other Funding</b>	<b>\$ 0</b>		

**Total Amount Requested** \$ 14,211,904

**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.

[Please see attached document for detailed description.]

---

#### 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)?

[Please see attached document for detailed description.]

---

- 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.

[Please see attached document for detailed description.]

---

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

If needed, the Board of Trustees can 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: Miami Dade College

Name and Title of Authorized Representative: Lenore P. Rodicio, Ph.D., Executive Vice President and Provost

Representative Signature: *Lenore P. Rodicio*

Signature Date: 08/18/17

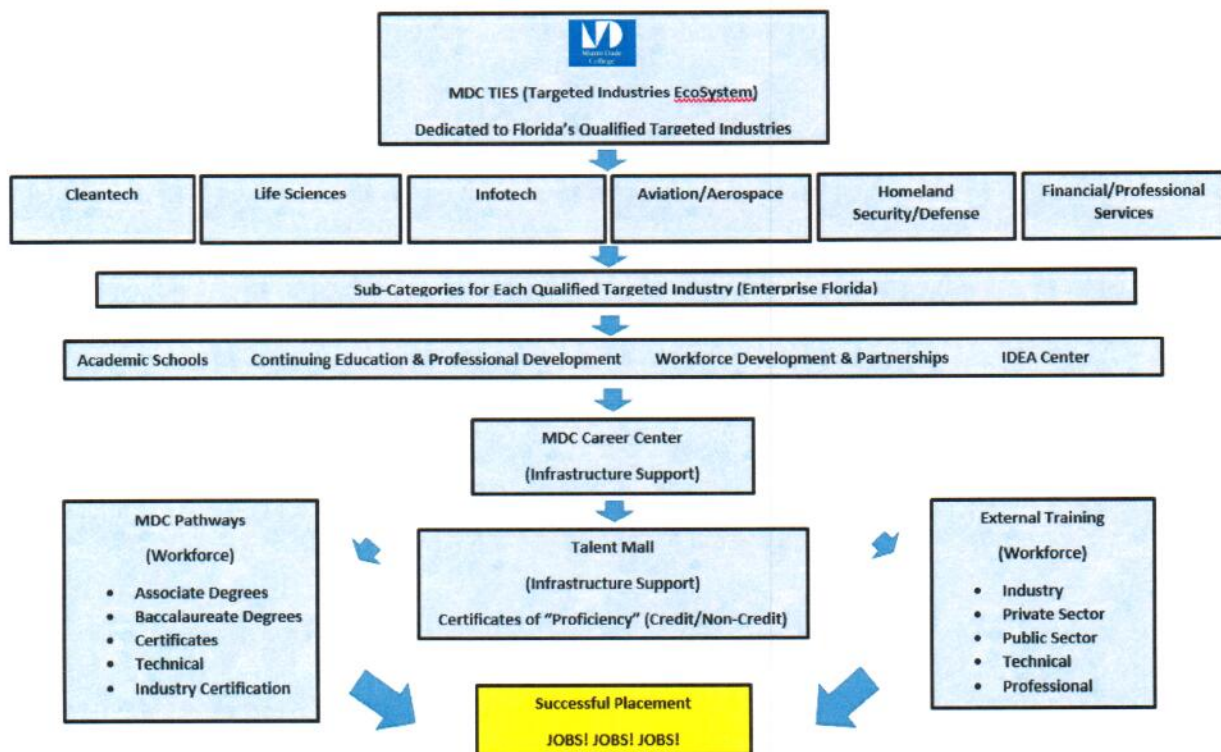


## Miami Dade College: Targeted Industries EcoSystem (MDC TIES)

The MDC TIES model is based on the need to create career pathways to serve the needs of industry in the State of Florida short, medium, and long-term. Training and education options will include college credit, technical, and industry certificates, as well as associate and baccalaureate degrees. Apprenticeship and internship opportunities will be embedded in the different options. Florida has a competitive advantage over other states due to business climate, infrastructure, trade, workforce, quality of life. In order to serve the talent needs of Florida's Qualified Targeted Industries, Miami Dade College (MDC) will develop and implement an ecosystem focused on expansion of existing and creation of new workforce pathways based on the needs of industry.

MDC TIES will enhance existing and build new industry connections focused on the following industries and related sub-industries: Cleantech, Life Sciences, Infotech, Aviation/Aerospace, Homeland Security/Defense, Financial/Professional Services. Defined career tracks will be housed within MDC's Academic Schools (Business, Education, Engineering, Health Science, Justice, Medical, Science), School of Continuing Education & Professional Development, Office of Workforce Development & Partnerships, and The IDEA Center (incubator/accelerator).

### MDC TIES (Targeted Industries EcoSystem)





MDC TIES will not only provide relevant workforce driven curriculum, but will ensure that students have the opportunity to acquire relevant skills in either a workplace setting (internships/apprenticeships) or through campus spaces that mimic the workplace.

Throughout the workforce training journey, students will have access to the MDC Qualified Targeted Industries Career and Training Center (“Career Center”). The Career Center will provide “out-of-the-classroom” support for students. The MDC TIES model focuses on the life-cycle of the student (recruit, retain, complete, place) and the Career Center is part of all four phases. The Career Center will have a brick and mortar location at each of the MDC campuses, a virtual Career Center providing user access on a 24/7 basis, and a mobile MDC Career Center providing mobility within the community. The Career Center structure will contain five key units including: Career Advisory Services, Internship Services, Apprenticeship Services, Placement Services, Alumni Career Services.

The Career Center will be part of the student life-cycle from the moment a potential student becomes interested in Miami Dade College. Prior to enrolling at MDC, the Career Center will provide an outreach program showing potential students different career options which will assist in recruitment. Once officially a student at Miami Dade College, the Career Center will play an active role in student success complimenting other resources within the MDC network. The Career Center understands students benefit from proactive, early engagement, and multiple opportunities to learn about the qualified targeted industries.

The Career Center will be a valuable resource for employers categorized under the qualified targeted industries classification and provide the following services through the establishment of a MDC TIES Talent Mall, ultimately focused on preparing students for workforce opportunities.

#### *Soft Skills Certification of Proficiency*

MDC students will have the opportunity to pursue training related to soft skills development including award of a Certificate of Proficiency for two purposes: One, to strengthen the student’s ability to secure employment; Two, for employers to know MDC students have an extra set of skills demanded by industry (i.e., people skills, social skills, communication skills, character traits, attitudes, career attributes, social intelligence, emotional intelligence).

#### *“Reverse” Job Fair / Talent Mall*

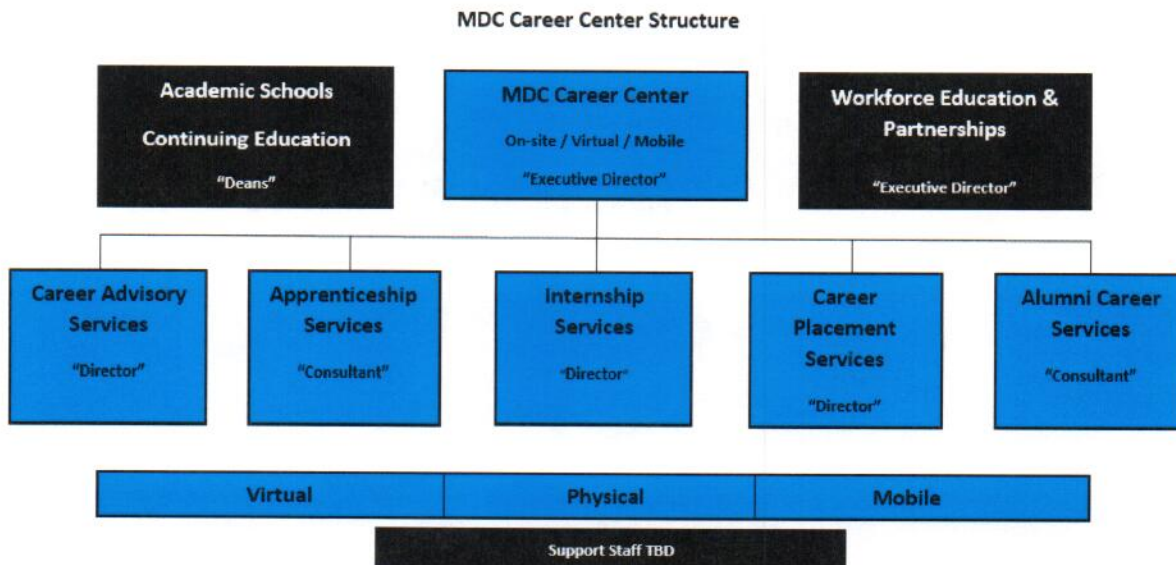
Traditional job fairs focus on select days throughout the year whereby employers set up exhibit booths and hope students will drop by to listen about career opportunities. In many cases, traditional job fairs are successful and should be a part of the MDC experience.

MDC will employ the model of “reverse” job fairs whereby students set up their own exhibit booths based on talent, skills, and interest by industry or profession. This type of job fair creates opportunities for students to develop a marketing and branding strategy about him/herself and attract employers to them. The “reverse” job fair model allows employers to seek out students as

future employees without the need to set up their own career fair infrastructure (talent mall concept). This will be an opportunity for entrepreneurial minded students to pitch new business concepts to potential investors seeking to fund ideas within the qualified targeted industries.

*Employers-in-Residence*

MDC will provide short- and long-term space to employers interested in having a regular presence on campus to recruit students for employment positions. MDC will host theme days/weeks/months focused on employers-in-residence short-term or create booth spaces whereby employers will have a more permanent location manned by personnel throughout the day.



MDC TIES will be the first workforce development ecosystem created to focus on the needs of the qualified targeted industries in the State of Florida. Over the last decade, Florida has experienced the lowest unemployment rate in a decade and since 2010, more than 1.37 million jobs have been created. Florida’s economy continues to expand and competition from other states and countries is growing meaning new infrastructure and workforce training programs are needed. MDC TIES will greatly assist the State of Florida by helping industries and companies choose the state as a destination for business. Miami Dade College seeks to become the “go to” resource for education and training needs serving the qualified targeted industries short, medium, and long-term. A successful award from the Florida Growth Grant Fund will result in establishment of a long-term resource for a sustainable, strong workforce in Miami-Dade County and across the state.



**Florida Department of Economic Opportunity / Enterprise Florida  
Florida Job Growth Grant Fund  
Workforce Training Grant Proposal Outline**

**1. Program Requirements**

**A. Provide the title and a detailed description of the proposed workforce training program.**

Miami Dade College (MDC) proposes the MDC Targeted Industries EcoSystem (MDC TIES), offering dedicated career tracks within the qualified targeted industries of CleanTech, Life Sciences, Infotech, Aviation/Aerospace, Homeland Security/Defense, and Financial/Professional Services, in the form of stackable credentials that include technical and industry college credit certificates, as well as associate and baccalaureate degrees leading to high-skills, high-wage jobs. MDC TIES will include physical, virtual, and mobile career and training centers where participants will be partnered with industry for internships, apprenticeships, and jobs. Miami Dade College will build on existing partnerships with CareerSource South Florida, the Miami-Dade Beacon Council, the Greater Miami-Dade Chamber of Commerce, community leaders, and local businesses to successfully place participants. MDC will also work with these entities to attract businesses that may have refrained from calling Miami-Dade home due to lack of talent.

MDC TIES will be the “go-to” place for students interested in pursuing short-term career paths requiring demanded skills by the qualified targeted industries. The expected end result is job placement with a high wage and a pathway for career progression. Through MDC TIES, students will have opportunities to acquire the necessary credentials to find a job in one of these industries. Through this project, new certificate programs will be developed that address the needs of industry. The Industry Advisory Committees, comprised of industry partners, for the various fields of study will assist in the development of the new programs to ensure that content meets the needs of the workforce. Select existing programs are being revised to ensure they are of industry standard. Other existing programs are being expanded and offered in more locations, making them more accessible to individuals in the community.

MDC TIES will include career and training centers at each of the eight campuses, the Virtual Career Center, and throughout the community via a mobile MDC Career and Training Center. At these Career and Training Centers, students will have access to information on occupations, employers, and internship/apprenticeship opportunities as well as the opportunity to pursue short-term training programs. The Career and Training Centers will offer assistance with soft skills development along with résumé preparation, interview skills, and guidance on professional attire, as examples.

MDC TIES will include a Talent Mall where industry partners can post jobs and seek candidates that have received Certificates of Proficiency meeting their needs. Employers will know that the candidates found via the Talent Mall will have the education and skills



they need in their employees, making it the preferred “go-to” place for hiring new talent. MDC will use this tool to recruit businesses looking to call Miami-Dade home to show that there is talent here.

MDC TIES will provide customized offerings to private and public sectors focused on the qualified targeted industries. Offerings will be made available to employers for their employees, increasing the quality of the local workforce.

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

Through this project, Miami Dade College will expand career opportunities focused on serving Florida’s qualified targeted industries. MDC provides education and training to address 69 of the Regional Demand Occupations via certificates, associate, baccalaureate degrees or a combination of these. Through MDC TIES, MDC will expand infrastructure to increase access to these pathways and provide equivalent quality of education in order to better serve the community. As an example, if an individual from the Northern part of the County seeks to study aviation, they currently have to attend courses at the Homestead Campus in the southern part of the County. In order to increase access, MDC TIES will expand key programs in the targeted areas to all eight of MDC’s campuses.

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

Participants served through MDC TIES will receive education and training in one of the qualified targeted industries as well as soft skills to include professional presentation, interviewing skills, résumé writing, etc., making them better candidates and more employable. The education and training provided at MDC provides students with industry-level content which prepares them for the workforce, with little to no training needed from the employer. MDC works closely with industry and the skills learned are not only applicable to any employer in the industry, but transferable and sustainable workforce skills.

Additionally, MDC TIES will work with Gallup, to conduct a comprehensive survey to households in the Miami-Dade County area to measure the broader impact of Miami-Dade success metrics, such as community impact and successful outcomes for non-graduates. Gallup will also interview Miami-Dade County employers to determine the availability of internships or apprenticeships and their talent needs. The results of these surveys will assure that the training and education provided aligns with employers and overall industry needs.

**D. Does this proposal support a program(s) that is offered to the public?**

Yes / No

Miami Dade College is a public, open-access institution of higher education where anyone interested in receiving training and an education can attend.



E. Describe how this proposal is based on criteria established by the state colleges and state technical centers.

MDC TIES builds upon the work already provided by MDC which includes college credit certificates, associate and baccalaureate degrees, and technical and industry certifications. Through MDC TIES, the pathways addressing the qualified targeted industries will be strengthened and provided equally throughout the College, increasing access to education. Funding will be used to enhance infrastructure providing increased access to the Miami-Dade County community and the State of Florida. By expanding programs to all campuses, more individuals will receive the skills necessary for the regional demand occupations in the qualified targeted industries. MDC TIES will redesign curriculum to meet industry standards and provide career development resources. Funds will be used to acquire state-of-the-industry technology and instrumentation to support the training and to provide students with real workforce experiences. The addition of the Career and Training Centers and Talent Mall also builds on what MDC does by better connecting students to employers and industry.

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.

By increasing access to education, MDC TIES will enhance workforce training and promote economic opportunity. Miami-Dade County is a large county where accessibility is a challenge. MDC addressed this challenge by opening campuses in all areas of the County (North, South, Central, East, and West), providing access to education to the entire community. MDC recognizes that to best serve the community and promote economic opportunity, it needs to update the infrastructure to expand offerings and increase access and capacity. MDC is the only state college serving over 3 million residents of Miami-Dade County and needs to build capacity to meet the needs of the community and local workforce.

By enhancing and increasing offerings, Miami-Dade County will have a better prepared workforce with the skills necessary to fill the demand. According to the 2017-2018 Regional Demand Occupations List for Miami-Dade and Monroe County, MDC has the potential of meeting the demand of 9,970 annual openings in occupations within the qualified targeted industries, and an additional 2,693 annual openings in the regional demand occupations list. At this time, MDC offers certificates, associate and baccalaureate degrees for 54 of the demand occupations within the qualified targeted industries. MDC will expand the offering of these pathways to better serve the community and strengthen the local workforce, leading to more jobs.



In order to measure success, evaluation of the activities will take place. Metrics to be used include student retention, completion, placement, and wages. MDC will work with industry partners and local employers to capture job placement and wages data. MDC's partnership with Gallup will also yield to important data about the impact of MDC TIES in the community. Success will equal an increase in enrollment in short-term credentials and completion, as well as positive job placement data and a better skilled workforce.

## 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.

The existing programs are geographically concentrated or lack the infrastructure to meet demand. The funds from this grant will be used to strengthen and update the infrastructure so that the programs are offered equally throughout Miami-Dade County. Through this project, MDC will develop new curriculum, as well as expand and update existing curriculum for short-term, accelerated career pathways. Funding will be used to purchase state-of-the-industry equipment and supplies so that participants are exposed to the same equipment they will be using in the field, reducing training time for the employer as well as making the participant more marketable. Additionally, funding will be used to cover the costs of exam preparation and fees for industry certifications.

Funds will be used to create the Career and Training Centers at the eight campuses, the Virtual Career and Training Center, and mobile centers, as well as the Talent Mall. The Career and Training Centers will have physical locations at each of the campuses and a virtual career and training center for our online student community. The mobile centers will be present throughout Miami-Dade County, transporting MDC TIES information to the community and extending our reach. Currently, the Career and Training Center and the Talent Mall do not exist and will be established through this funding opportunity.

MDC TIES will also use funding to provide participants with paid internships and apprenticeships opportunities as well professional development for faculty on the new or revised curriculum.

B. Does the proposal align with Florida's Targeted Industries? Yes / No

If yes, please indicate the targeted industries with which the proposal aligns. If no, with which industries does the proposal align?

MDC TIES is aligned with the qualified targeted industries featured in the report by the Florida Chamber of Commerce: Cleantech, Life Sciences, InfoTech, Aviation/Aerospace, Homeland Security/Defense, and Financial/Professional Services.



Additionally, MDC TIES aligns with the Miami-Dade County Beacon Council's, *One Community, One Goal* (OCOG) initiative. This community-wide initiative led by the Miami-Dade Beacon Council, and supported by the entire Miami-Dade community, identified the following targeted industries Aviation, Banking and Finance, Creative Design, Hospitality and Tourism, Life Science and Healthcare, Technology, and Trade and Logistics. MDC TIES connects training and education to the targeted industries identified by both the State and the County.

- C. Does the proposal align with an occupation(s) on the Statewide Demand Occupations List and/or the Regional Demand Occupations List? Yes / No  
 If yes, please indicate the occupation(s) with which the proposal aligns. If no, with which occupation does the proposal align?

SOC Code†	HSHW††	Occupational Title†	Annual Percent Growth	Annual Openings
413011		Advertising Sales Agents	0.51	468
119041	HSHW	Architectural and Engineering Managers	2.00	49
131199	HSHW	Business Operations Specialists, All Other	1.47	291
435011		Cargo and Freight Agents	1.80	149
111011	HSHW	Chief Executives	0.81	81
172051	HSHW	Civil Engineers	2.31	124
113021	HSHW	Computer and Information Systems Managers	2.04	48
151143	HSHW	Computer Network Architects	1.79	48
151152	HSHW	Computer Network Support Specialists	1.70	34
151121	HSHW	Computer Systems Analysts	2.97	103
151151	HSHW	Computer User Support Specialists	1.86	134
151141	HSHW	Database Administrators	1.66	29
319091		Dental Assistants	2.10	817
292021	HSHW	Dental Hygienists	2.04	41
292032	HSHW	Diagnostic Medical Sonographers	3.20	41
132051	HSHW	Financial Analysts	1.44	62
113031	HSHW	Financial Managers	1.43	124
431011	HSHW	First-Line Superv. of Office and Admin. Support Workers	1.26	396
111021	HSHW	General and Operations Managers	1.42	460
271024		Graphic Designers	0.60	70
292099		Health Technologists and Technicians, All Other	1.62	46
113121	HSHW	Human Resources Managers	1.57	29
172112	HSHW	Industrial Engineers	0.62	29
271025		Interior Designers	1.54	36
434131		Loan Interviewers and Clerks	1.18	51
132072	HSHW	Loan Officers	1.15	84
131081	HSHW	Logisticians	2.34	41
131111	HSHW	Management Analysts	2.66	231
131161	HSHW	Market Research Analysts and Marketing Specialists	2.68	163
112021	HSHW	Marketing Managers	1.87	52
172141	HSHW	Mechanical Engineers	1.81	28
292012		Medical and Clinical Laboratory Technicians	2.25	45

319092		Medical Assistants	2.99	2,451
292071		Medical Records and Health Information Technicians	1.88	70
151142	HSHW	Network and Computer Systems Administrators	1.42	67
292081	HSHW	Opticians, Dispensing	2.59	40
232011	HSHW	Paralegals and Legal Assistants	1.46	177
132052	HSHW	Personal Financial Advisors	3.33	162
319097		Phlebotomists	2.44	355
312021	HSHW	Physical Therapist Assistants	3.72	302
291071	HSHW	Physician Assistants	3.13	34
273031	HSHW	Public Relations Specialists	1.11	59
292034	HSHW	Radiologic Technologists	1.54	76
291141	HSHW	Registered Nurses	1.80	1,107
291126	HSHW	Respiratory Therapists	1.17	48
112022	HSHW	Sales Managers	1.11	94
413031	HSHW	Securities and Financial Services Sales Agents	1.43	134
151132	HSHW	Software Developers, Applications	2.11	128
151133	HSHW	Software Developers, Systems Software	1.99	34
492022		Telecommunications Equipment Installers and Repairers	0.70	47
131151	HSHW	Training and Development Specialists	1.65	71
113071	HSHW	Transportation, Storage, and Distribution Managers	1.15	28
151134	HSHW	Web Developers	2.69	38
514121		Welders, Cutters, Solderers, and Brazers	0.83	44
<b>TOTAL OCCUPATIONS</b>		<b>54</b>	<b>TOTAL ANNUAL OPENINGS</b>	<b>9,970</b>

Additional Regional Demand Occupations that will be served through the MDC TIES and focus on the OCOG targeted industries include:

<b>SOC Code†</b>	<b>HSHW††</b>	<b>Occupational Title†</b>	<b>Annual Percent Growth</b>	<b>Annual Openings</b>
351011	HSHW	Chefs and Head Cooks	1.51	45
332011	HSHW	Firefighters	1.19	148
119051	HSHW	Food Service Managers	1.20	59
499021		Heating, A.C., and Refrigeration Mechanics and Installers	1.93	131
252012	HSHW	Kindergarten Teachers, Except Special Education	1.75	58
119081	HSHW	Lodging Managers	1.15	27
319011		Massage Therapists	2.41	455
472152		Plumbers, Pipefitters, and Steamfitters	1.74	55
333051	HSHW	Police and Sheriff's Patrol Officers	1.17	366
272012	HSHW	Producers and Directors	1.09	79
131023	HSHW	Purchasing Agents, Except Farm Products & Trade	0.95	89
472181		Roofers	2.53	813
252031	HSHW	Secondary School Teachers, Exc. Special and Voc. Ed.	1.83	250
472211		Sheet Metal Workers	1.47	29
514121		Welders, Cutters, Solderers, and Brazers	0.83	44
<b>GRAND TOTAL OCCUPATIONS</b>		<b>69</b>	<b>GRAND TOTAL ANNUAL OPENINGS</b>	<b>12,663</b>

D. Indicate how the training will be delivered (e.g. classroom-based, computer-based, other).



If in-person, please 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.

Training will be classroom-based and offered at most of the campuses: Hialeah, Homestead, InterAmerican, Kendall, Medical, North, West, and Wolfson campuses. Training will be offered at the North (North or Hialeah), Central (Wolfson or InterAmerican), and South (Kendall or Homestead) areas. Each of the campuses serve a different geographical area of Miami-Dade County.

Hialeah Campus serves the City of Hialeah and neighboring areas such as Miami Shores, Miami Springs, and Miami Lakes.

Homestead Campus serves the City of Homestead, Naranja, Redland, Florida City, and the rest of the southern part of the County.

InterAmerican Campus serves the areas of Little Havana, Coral Gables, Coconut Grove and surrounding areas.

Kendall Campus serves the areas of Kendall, Palmetto Bay, Pinecrest, West Kendall, South Miami, and other surrounding areas.

Medical campus is located in the Miami Health district of the county. The Miami Health District is the second largest concentration of medical and research facilities after Houston, and is located near Downtown Miami.

North Campus serves the northern part of the County which includes Opa-Locka, North Miami, North Miami Beach, Miami Gardens, Aventura, and Liberty City.

West Campus is located in the City of Doral and is the farthest west in the County. It serves Doral, Sweetwater, West Miami, Medley, and surrounding areas.

Wolfson Campus is located in Downtown Miami and serves the City of Miami, Miami Beach, Midtown, Wynwood, and surrounding areas.

In addition to classroom-based offerings, MDC's Virtual College, and Virtual Career and Training Center, in partnership with MDC's School of Continuing Education and Professional Development, will provide computer-based offerings. Students located anywhere in the city, state, country, or world with access to the internet can attend MDC's Virtual College (MDC VC) and receive the same high-quality education that is expected from MDC. MDC VC currently offers four online bachelor degree programs, eight associate in science degree programs, and six college certificate programs. Through MDC TIES, offerings will be increased focusing on the qualified targeted industries.



MDC TIES will work with employers to provide on-the-job training opportunities for students via paid internships and apprenticeships. Funds from this project will help offset costs to the employers to provide this training and the hands-on experience that takes theory to application.

The MDC Mobile Career and Training Centers will provide courses throughout Miami-Dade County, increasing access to the community. This valuable mobile resource bridges the gap between MDC, the community, and industry.

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

Each industry and program will have a different number of enrolled students and completers, but an approximately 3,000 students will go through the programs supported by MDC TIES.

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

**Begin date:** 10/01/2017      **End date:** 09/30/2018

The programs vary in length from three weeks for industry certification to four years for baccalaureate degrees. The programs are offered in the stackable credentials format so that students can acquire college credit, a technical, or industry certificate, and obtain immediate employment, with the option to continue their postsecondary education. Articulation agreements are in place to provide credits towards a degree from the certificate(s) earned which provides a smooth transition in and out of education. Providing stackable credentials provides students with the ability to gain employment in a high-skill, high-wage occupation in a short period of time. Funds received from the Florida Growth Grant Fund will be primarily focused on accelerated career pathways with the goal of providing a strong and long-term workforce to serve the needs of the qualified targeted industries.

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

Once the infrastructure is in place, MDC will continue to offer the programs. The funds from this grant will be used to build the foundation of the infrastructure, but once the model is in place, MDC has the ability to sustain the program thru standard tuition and fees, and continue serving the community and industry. MDC TIES will continue to serve students after this funding period through the Career and Training Centers (on-site and mobile), the Talent Mall, and through the offering of the targeted industries credentials.

The MDC TIES model includes career pathways focused on serving Florida's qualified targeted industries by preparing students for the workforce through education and soft skills training in a short amount of time.

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.

**Key:** CCC = College Credit Certificate; CTC = Career Technical Certificate; AS = Associate in Science; AA = Associate in Arts; BS = Bachelor of Science; BAS = Bachelor of Applied Science

CIP Code	HSHW††	Occupational Title†	Type
52.14		Advertising Sales Agents	CCC / AS
	HSHW	Architectural and Engineering Managers	AA
52.0299	HSHW	Business Operations Specialists, All Other	CCC
52.0209		Cargo and Freight Agents	CCC
	HSHW	Chief Executives	CCC
14.0801	HSHW	Civil Engineers	AS
11.10	HSHW	Computer and Information Systems Managers	AS
11.1003	HSHW	Computer Network Architects	AS
11.1006	HSHW	Computer Network Support Specialists	AA
11.0501	HSHW	Computer Systems Analysts	CCC
11.1006	HSHW	Computer User Support Specialists	CCC
11.0802	HSHW	Database Administrators	AS / BS
51.0601		Dental Assistants	AS
51.0602	HSHW	Dental Hygienists	AS
51.0910	HSHW	Diagnostic Medical Sonographers	AS
52.08	HSHW	Financial Analysts	CCC / AS
52.08	HSHW	Financial Managers	CCC / AS
	HSHW	First-Line Superv. of Office and Admin. Support Workers	CCC
52.0205	HSHW	General and Operations Managers	CCC
09.0908		Graphic Designers	AS
51.0707		Health Technologists and Technicians, All Other	AS
52.10	HSHW	Human Resources Managers	CCC / AS
14.35	HSHW	Industrial Engineers	CCC
50.0408		Interior Designers	AA / AS
		Loan Interviewers and Clerks	CCC
	HSHW	Loan Officers	CCC
52.02	HSHW	Logisticians	CCC
52.13	HSHW	Management Analysts	CCC
52.14	HSHW	Market Research Analysts and Marketing Specialists	CCC / AS
52.1401	HSHW	Marketing Managers	CCC / AS
14.19	HSHW	Mechanical Engineers	AA
51.08		Medical and Clinical Laboratory Technicians	CTC
51.0710		Medical Assistants	CTC
51.0707		Medical Records and Health Information Technicians	CCC / AS
11.1001	HSHW	Network and Computer Systems Administrators	CCC / AS
51.1801	HSHW	Opticians, Dispensing	AS
22.0302	HSHW	Paralegals and Legal Assistants	AS
	HSHW	Personal Financial Advisors	CCC



51.1009		Phlebotomists	CTC
51.0806	HSHW	Physical Therapist Assistants	AS
51.0912	HSHW	Physician Assistants	AS
09.09	HSHW	Public Relations Specialists	CCC / AS
51.0911	HSHW	Radiologic Technologists	AS
51.38	HSHW	Registered Nurses	AS / BSN
51.0908	HSHW	Respiratory Therapists	AS
	HSHW	Sales Managers	CCC
	HSHW	Securities and Financial Services Sales Agents	CCC
11.08	HSHW	Software Developers, Applications	AS / BS
11.02	HSHW	Software Developers, Systems Software	AS / BS
10.01		Telecommunications Equipment Installers and Repairers	AS
	HSHW	Training and Development Specialists	CCC / AS
52.0209	HSHW	Transportation, Storage, and Distribution Managers	AS
11.1004	HSHW	Web Developers	CCC / AS
		Welders, Cutters, Solderers, and Brazers	AS

<b>Other Regional Demand Occupations (on the OCOG targeted industry list)</b>			
<b>CIP Code</b>	<b>HSHW††</b>	<b>Occupational Title†</b>	<b>Type</b>
12.05	HSHW	Chefs and Head Cooks	CCC / AS
43.02	HSHW	Firefighters	CTC / AS
12.0507	HSHW	Food Service Managers	CCC / AS
		Heating, A.C., and Refrigeration Mechanics and Installers	CTC
	HSHW	Kindergarten Teachers, Except Special Education	BS
52.09	HSHW	Lodging Managers	CCC
51.3501		Massage Therapists	CTC
		Plumbers, Pipefitters, and Steamfitters	CCC / CTC / AS
43.0107	HSHW	Police and Sheriff's Patrol Officers	CTC
	HSHW	Producers and Directors	AS
	HSHW	Purchasing Agents, Except Farm Products & Trade	BAS
		Roofers	AS / AA
	HSHW	Secondary School Teachers, Exc. Special and Voc. Ed.	BS
		Sheet Metal Workers	CTC

I. Does this project have a local match amount? Yes / No

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

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

Attached is a narrative, including a chart, outlining the MDC TIES model. The attachment highlights the qualified targeted industries and how MDC's Academic Schools, School of Continuing Education and Professional Development, Office of Workforce Development and Partnerships, The IDEA Center (incubator/accelerator), MDC Career and Training Center, and MDC Talent Mall support workforce needs resulting in successful placement of individuals in jobs.



### 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 Costs		
Equipment	\$ 5,418,861	
Personnel	\$ 236,913	
Facilities	\$ 2,000,000	
Tuition	\$ 1,500,000	
Training Materials	\$ 1,998,733	
Other	\$ 867,000	Please specify: -Contractual costs for curriculum development and industry assessment -Internships/Apprenticeships -New Curriculum training (faculty)
	\$ 1,000,000	
	\$ 325,000	
Indirect Costs	\$ 765,397	
<b>Total Project Costs</b>	<b>\$ 14,211,904</b>	
B. Other Workforce Training Funding Sources		
City/County	\$ 0	
Private Sources	\$ 0	
Other (grants, tec.)	\$ 0	
<b>Total Other Funding</b>	<b>\$ 0</b>	Please specify:
<b>Total Amount requested</b>	<b>\$ 14,211,904</b>	

**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**

##### **a. Personnel**

Position	Full/Part-time	Time (%)	
Project Coordinator	F/T	100%	\$77,875.00
Data Specialist	F/T	100%	\$47,019.00
Outreach Coordinator	F/T	100%	\$60,876.00
<b>Personnel Totals</b>			<b>\$185,770.00</b>

A Project Coordinator will be hired to oversee the implementation of the MDC TIES project. The Coordinator will be responsible for ensuring that project implementation is

on time and in compliance with the grant agreement. The Coordinator will work with the unit heads to verify equipment purchases and milestones are met. Additionally, the Coordinator will oversee the Data Specialist and the Outreach Coordinator.

The Data Specialist will be responsible for the data collection and analysis for the project. This person will work closely with MDC's Office of Institutional Research to capture the data and provide reporting as needed to the funder.

The Outreach Coordinator will work with local workforce board, employers, public schools system, private schools, and the community at-large to promote MDC TIES and inform the community about the opportunities provided. The Outreach coordinator will work with industry to assure that the offerings are aligned with the needs of employers.

The salaries requested are in accordance with MDC's policies and job descriptions.

b. Fringe Benefits

<b>B. Fringe Benefits</b>	<b>Calculation</b>	
Project Coordinator	\$77,875 x 27.53%	\$21,438.99
Data Specialist	\$47,019 x 27.53%	\$12,944.33
Outreach Coordinator	\$60,876 x 27.53%	\$16,759.16
<b>Fringe Benefits Totals</b>		<b>\$51,142.48</b>

Fringe Benefits are calculated at 27.53% for full-time employees and include Social Security, Medicare, FICA, Retirement, Life, Dental and Health Insurance.

c. Equipment

Equipment is being purchased for the Career and Training Center, simulation training, life sciences, and interdisciplinary space.

<b>D. Equipment</b>	<b>Qty.</b>	<b>Unit Price</b>	<b>Total</b>
Mobile Career Center (retrofitted buses)	2	\$340,000	<b>\$680,000</b>
Flight Training Device - CRJ 2000	2	\$975,000	<b>\$1,950,000</b>
L3 CTS B737-800 Virtual Maintenance Trainers - Instructors	2	\$20,615.38	<b>\$41,231</b>
L3 CTS B737-800 Virtual Maintenance Trainers - Students	24	\$20,615.38	<b>\$494,769</b>
Nokia OZO Professional Virtual Reality Camera PC-01	1	\$45,000	<b>\$45,000</b>
Markforge Mark two carbon fiber 3D printer	4	\$13,500	<b>\$54,000</b>
Roland MDX 40A CNC Mill Educational Bundle	4	\$13,895	<b>\$55,580</b>
Shopbot 5 axis large format CNC mill	4	\$42,380	<b>\$169,520</b>
Kuka RMC0 7 axis robotic arm educational kit and training	4	\$125,000	<b>\$500,000</b>
Trotec Speedy 400 Flex Laser	4	\$84,150	<b>\$336,600</b>
Haas TL 1 CNC Lathe	4	\$34,000	<b>\$136,000</b>
Haas SMINIMILL2 CNC Mill	4	\$49,000	<b>\$196,000</b>



Trailer	1	\$75,161	<b>\$75,161</b>
Dental Hygiene suite with 7 chairs	1	\$225,000	<b>\$225,000</b>
Mannequins (Simulation)	20	\$10,000	<b>\$200,000</b>
Vimedix with Hololens	1	\$260,000	<b>\$260,000</b>
<b>Equipment Totals</b>			<b>\$5,418,861</b>

The Mobile Career and Training Centers will be retrofitted bus-like vehicles that will travel throughout Miami-Dade County to disseminate information about the short-term programs, job opportunities, and industry demands. The Mobile Career and Training Centers will also assist individuals from the community in identifying career choices aligned with their skills and interests and provide soft-skills training. Through this project, MDC is requesting two Mobile Career and Training Centers to better reach county residents. One center will focus on the northern part of the county, and the other will mainly be in southern part of the county.

MDC TIES includes the creation of Makers' Labs throughout MDC. Currently, there are two Makers' Labs at two campuses – Kendall and Wolfson. These spaces are a place for students and faculty to collaborate and find solutions for issues together. Students and faculty can come from various disciplines and fields and might focus on electronics, robotics, woodworking, sewing, laser cutting, programming, or a combination of these skills; skills that are needed in today's workforce. The Makers' Labs will provide participants with the exposure and experience of working with tools and machinery that is used in the workforce while in a learning environment.

The purchase of the Nokia OZO Virtual Reality Camera will be used to create the virtual and augmented reality worlds. These "worlds" will be created by the students under faculty supervision for students and industry. Augmented and virtual reality (AR/VR) tools are being used to train individuals in a variety of industries and reduces costs to the employer. By using AR/VR simulation training, employers reduce the costs of supplies and equipment and have access to better data on how the employees perform in the training; making it more appealing. The challenge is having enough skilled individuals to create the content for the trainings in the variety of fields, such as health, public safety, ports, aviation, and others. MDC TIES will provide the training to produce developers of AR/VR content, also known as software developers, which are on the Regional Demand Occupations list and although part of the Infotech industry, provide support all of the qualified targeted industries.

The Flight Training Device (FTD) is another simulation tool that will be used to train pilots and aircraft simulation maintenance technicians. MDC TIES is requesting two of these devices so that more participants can be trained in these high demand occupations. The FTDs will be certified by the Federal Aviation Administration (FAA) as Level 5 meaning they can be used to accumulate the equivalent of in-flight hours, but in a simulated environment on the ground. The pilot shortage in the United States continues to



grow and academic institutions like MDC are creating accelerated learning pathways to produce more pilots. Incorporating FTDs into the training curriculum reduces training costs for the student, enhances skills, and reduces the number of hours required to fly an actual aircraft. FTDs require maintenance, repair, and overhaul, and MDC plans to develop an aircraft simulation maintenance technician program producing talent to this side of the aviation/aerospace industry. MDC plans to become a certified training facility for this profession and the primary resource for talent in South Florida. The FTDs will not only be used for training pilots but training simulation technicians as well; occupations listed in the Regional and Statewide Demand Occupations List and part of the Aviation industry – a qualified targeted industry.

The Virtual Maintenance Trainers (VMTs) requested are simulation-based training tools used by airlines, MROs and training centers around the world. The VMTs provide aircraft maintenance technicians the opportunity to explore the entire aircraft using fully functional Virtual Flight Deck and Virtual Aircraft. Students will practice troubleshooting procedures, study systems theory, conduct simulated ‘return to service’ tests, etc.

A trailer is being requested for the Landscape and Horticulture Technology program. The trailer is used to conduct classes for the certificates programs. There has been a high demand for these courses as they fill quickly and having the space is imperative to meet the demand. The certificates produce individuals to fill occupations in landscaping, nurseries, city landscape departments, parks, research, and botanical gardens within Cleantech industry.

The dental hygiene suite will include seven dental chairs and necessary equipment for the training of dental assistants and dental hygienists, two occupations listed in the Regional and Statewide Demand Occupations List with high number of annual job openings.

Simulation mannequins will be purchased for the various health sciences trainings offered at MDC. These include phlebotomists, nurses, medical and physician assistants, cardiovascular technicians, sonographers, and other health technicians. These mannequins provide students with the hands-on training without the risk of practicing on a person. The health occupations are listed in the Regional and Statewide Demand Occupations Lists and are part of the Life Sciences qualified targeted industry.

The Vimedix with Hololens is an augmented reality training tool used to train students in the medical field. The software provides students the ability to virtually see, expand, turn, or rotate body parts in a mannequin, offering a view on the interrelatedness of all its structures.

#### d. Supplies



Supplies requested for MDC TIES will be used to support the programs offered. The table below includes the breakdown of the supplies by program offered. Supplies include the retrofitting of the mobile career centers such as computers, phones, SMART Whiteboards, Monitors, printers, and furniture. Also included are Strengths Finder 2.0 books and assessments to assist individuals in finding their strengths and how they align with occupations that may be of interest to them.

For the InfoTech programs, supplies include the costs of exam preparation and the exam fees for industry certification. By providing these costs through the project, students will have a better chance of preparing and successfully passing the exam. Often times, students receive education and training but are not financially able to take the exam that provides them with the certification. A Tech Center will be built at the North Campus and at an outreach center for North Campus named the Carrie P. Meek Center. The Tech Centers will be retrofitted to include computers and SMART Whiteboards that are of industry standards.

For AR/VR training, supplies are being requested to offer the program. The supplies will provide students with the latest technology in the AR/VR industry. Students will learn how to develop software for the AR/VR world, and, in turn, these will be used to train others. Supplies include Hololenses, cameras, and software.

Costs include those associated with the various tools and supplies needed to run the four makers' labs. Supplies include hand tools, 3D scanners, Robotics kits, laser cutters, CNC mill, 3D printers, workbenches, electric paint, utility cars, touch screens, and other supplies.

For the aircraft maintenance technician program, funds will be used to purchase the computers that have the right technology to work with the Virtual Maintenance Trainers along with a projector for the instruction.

Marketing supplies are also included in the costs, and include media ads, flyers, postcards, and other print material, as well as the MDC TIES exhibit booth.

<b>E. Supplies</b>	<b>Qty.</b>	<b>Unit Price</b>	
<b>Mobile Career Centers</b>			
Internet and Telephone Installation	2	\$13,000	<b>\$26,000</b>
Dell Laptops	40	\$1,500	<b>\$60,000</b>
Dell Terminals	8	\$2,000	<b>\$16,000</b>
SMART Whiteboards	4	\$2,500	<b>\$10,000</b>
Tablets	20	\$1,500	<b>\$30,000</b>
Dell Monitors	8	\$800	<b>\$6,400</b>
Laser Printers	12	\$350	<b>\$4,200</b>
High Performance Printers	4	\$500	<b>\$2,000</b>

TV Monitors LG 4K HD	8	\$1,000	<b>\$8,000</b>
Table/Chair combination	40	\$1,000	<b>\$40,000</b>
Storage of career center materials	10	\$4,000	<b>\$40,000</b>
Strengths Finder 2.0 (book and assessment)	750	\$29.95	<b>\$22,463</b>
<b>Test Prep Tools and Software</b>			
Total Tester for 1,000 students (\$4,500 for 1 campus + \$1,000 for addl campuses)	7	\$4500 + (6x\$1000)	<b>\$10,500</b>
CertMaster - \$49/exam x 4 exams x 1000 students	4000	\$49	<b>\$196,000</b>
Lynda.com - \$10 per students	1000	\$10	<b>\$10,000</b>
Bonson - \$26.50 per exam x 1000 students x 6 exams	6000	\$27	<b>\$159,000</b>
MCSD App Builder Certification	240	\$165	<b>\$39,600</b>
C++ Certified Associate Programmer Certification	240	\$295	<b>\$70,800</b>
Web Developer MCSD App Builder Certification	96	\$165	<b>\$15,840</b>
Web Developer C++ Certification	96	\$295	<b>\$28,320</b>
Computer Tech Cupport - A+ Certification	45	\$294	<b>\$13,230</b>
Computer Tech Cupport - Network+ Certification	45	\$294	<b>\$13,230</b>
<b>Tech Center at North and Meek</b>			
Optiplex 5050 SFF Computer	74	\$782.64	<b>\$57,915</b>
Dell 22 Monitor	74	\$139.14	<b>\$10,296</b>
Teacher Station	2	\$921.78	<b>\$1,844</b>
SMART Whiteboards	2	\$2,500	<b>\$5,000</b>
<b>AR/VR Training</b>			
Instruction	5	\$1,200	<b>\$6,000</b>
Oculus rift + Oculus touch	3	\$598	<b>\$1,794</b>
PTGui Pro bundle license	3	\$386	<b>\$1,158</b>
GigaPan Epic Pro Robotic Panohead	1	\$824	<b>\$824</b>
Microsoft Hololens	1	\$3,000	<b>\$3,000</b>
Auto Pano Suite	1	\$108.50	<b>\$109</b>
Auto Pano Suite	1	\$254.96	<b>\$255</b>
Skybox Suite	1	\$420.00	<b>\$420</b>
GoPro HERO4 Black	12	\$366.18	<b>\$4,394</b>
GoPro Dual Battery Charger with Battery for HERO4	2	\$37.98	<b>\$76</b>
GoPro Rechargeable Battery for HERO4	2	\$12.00	<b>\$24</b>
GoPro Smart Remote	2	\$60.76	<b>\$122</b>
GoPro Remote 1.0 and Battery BacPac Bundle	1	\$39.00	<b>\$39</b>
GoPro HERO Session Bundle with The Handler and Remote 1.0	2	\$186.75	<b>\$374</b>
Pelican iM2050GP2 Storm Case w/ Foam for 2 GoPro HERO Cameras	2	\$62.92	<b>\$126</b>
GoPro HERO4 Silver Screen Protectors	4	\$7.49	<b>\$30</b>
Freedom360 Tri-Base Suction Cup Mount	2	\$113.93	<b>\$228</b>
GoPole Reach 14-40" Extension Pole for GoPro HERO Cameras	2	\$13.42	<b>\$27</b>
GoPro 360 Rig	3	\$1,372.00	<b>\$4,116</b>
Impact Saddle Sandbag (15 lb, Black)	4	\$16.46	<b>\$66</b>
GyroVu Articulated Arm Mount w/15mm Clamp for Camera Rig	1	\$37.98	<b>\$38</b>



Blackmagic Design HyperDeck Shuttle 2 SSD Video Recorder	1	\$294.00	<b>\$294</b>
Sony A7s ii	2	\$2,664.21	<b>\$5,328</b>
Sigma 8mm lens	1	\$809.00	<b>\$809</b>
GoPro Remote 1.0 and Battery BacPac Bundle	1	\$49.89	<b>\$50</b>
Sigma 8mm lens	1	\$799.00	<b>\$799</b>
Samsung Gear 360 Spherical VR Camera	1	\$319.00	<b>\$319</b>
KUPO 40" Master C-Stand with Sliding Leg - Black	1	\$97.50	<b>\$98</b>
GoPro Omni (All Inclusive)	1	\$4,339.99	<b>\$4,340</b>
<b>Makers Labs (4)</b>			
Miller Dynasty TIG welder	4	\$4,895	<b>\$19,580</b>
Hypertherm Powermax 45	4	\$2,270	<b>\$9,080</b>
Powermatic vertical band saw	4	\$2,893	<b>\$11,572</b>
Wazer compact waterjet	4	\$4,997	<b>\$19,988</b>
Raise N2 Plus FFF 3D printer	8	\$3,899	<b>\$31,192</b>
BCN3D Sigma R7 Independent Dual Extruder 3D Printer	4	\$2,695	<b>\$10,780</b>
Ultimaker 2 + 3D printer	4	\$2,500	<b>\$10,000</b>
Formlabs Form 2 SLA 3D printer	8	\$3,499	<b>\$27,992</b>
Formlabs Form cure	4	\$699	<b>\$2,796</b>
Formlabs Form wash	4	\$499	<b>\$1,996</b>
3D Systems handheld high resolution 3D scanner	4	\$399	<b>\$1,596</b>
Inventables Carvey Desktop CNC mill	4	\$2,500	<b>\$10,000</b>
Roland GS 24 Vinyl Cutter	4	\$2,000	<b>\$8,000</b>
Centroform LV 1827 Vacuum former	4	\$2,095	<b>\$8,380</b>
Boss Laser Fume ExtractionX for laser cutter	4	\$1,000	<b>\$4,000</b>
Dell Precision Tower 7810	8	\$4,900	<b>\$39,200</b>
Apple i7 work stations	8	\$3,038	<b>\$24,304</b>
Dake Johnson horizontal bandsaw JH0W	4	\$5,995	<b>\$23,980</b>
month supply of PLA Filament and consumables	48	\$2,500	<b>\$120,000</b>
month supply of SLA resin and consumables	48	\$2,950	<b>\$141,600</b>
Classroom and competition super kit (VEX) Robotics	4	\$1,050	<b>\$4,200</b>
Arduino UNO	200	\$24.95	<b>\$4,990</b>
Microsoft Iot Pack For Raspberry Pi 3 - W/ Raspberry Pi 3	200	\$103.46	<b>\$20,692</b>
VRC in the zone – full field kit	4	\$319	<b>\$1,276</b>
Canon 5D	4	\$2,299	<b>\$9,196</b>
EF 70-200mm f/2.8L IS II USM	4	\$1,949	<b>\$7,796</b>
EF 16-35mm f/2.8L II USM	4	\$1,299	<b>\$5,196</b>
Hex Keys	4	\$14.97	<b>\$60</b>
Screwdriver Set	4	\$29.97	<b>\$120</b>
Mobile Workbench	4	\$699	<b>\$2,796</b>
Mobile Bin Rack	4	\$171.53	<b>\$686</b>
Ripping Hammer	4	\$18.97	<b>\$76</b>
Wonder Bar (\$8.87ea) and Rubber mallet (\$4.97ea)	4	\$13.84	<b>\$55</b>
Particle Maker Kit with Photon	16	\$89.00	<b>\$1,424</b>

Electron Cellular IoT Kit	16	\$69.99	<b>\$1,120</b>
Heat Shrink Tubing Tube Sleeving Wrap	4	\$8.89	<b>\$36</b>
Heat Gun	4	\$17.71	<b>\$71</b>
Wire Stripper and Cutter ( 4 of each)	4	\$11.99+\$14	<b>\$103</b>
Isopropyl Alcohol (4-1 gallon bottles)	16	\$74.90	<b>\$1,198</b>
Helping Hands	16	\$44.95	<b>\$719</b>
Soldering Iron & Tip Cleaning Wire Sponge (16 of each)	16	\$89.59+\$8	<b>\$1,561</b>
Solder Sucker	16	\$6.99	<b>\$112</b>
Dustpan and brush	4	\$12.99	<b>\$52</b>
Makita Kit	4	\$579.99	<b>\$2,320</b>
Quincy Air Compressor	4	\$1,300	<b>\$5,200</b>
Resistor Assorted	4	\$12.90	<b>\$52</b>
Capacitors	4	\$12.00	<b>\$48</b>
36" Levels (\$25.99ea), Measuring tapes (\$29.88ea), & electric paint (\$7.80ea)	4	\$63.67	<b>\$255</b>
Lithium grease	8	\$29.99	<b>\$240</b>
Electrical Tape and Duct Tape (8 of each)	8	\$12.00+\$7	<b>\$155</b>
Hot Glue Gun and sticks (8 of each)	8	\$10.99+\$5	<b>\$129</b>
Digital Caliper	4	\$135.00	<b>\$540</b>
Arduino LCD Screen	16	\$17.99	<b>\$288</b>
Arduino Touch Screen	16	\$31.46	<b>\$503</b>
Little Bits Pro Library	4	\$5,000	<b>\$20,000</b>
Cutting Mat (\$18.88 ea) and clamps (\$34.67ea)	4	\$53.85	<b>\$214</b>
Wood Chisel	8	\$29.97	<b>\$240</b>
Small Compartment Case	8	\$19.97	<b>\$160</b>
Utility Cart	4	\$89.00	<b>\$356</b>
<b>Idea Center</b>			
Manuals and Teaching Aides for 3 courses	3	\$20,000	<b>\$60,000</b>
Office Materials	1	\$6,000	<b>\$6,000</b>
Learning Management Software (tracking system)	1	\$2,500	<b>\$2,500</b>
Event Supplies (i.e. hackathons, Puzzle Day)	9	\$500	<b>\$4,500</b>
Lecture Recording of all 3 courses	1	\$2,240	<b>\$2,240</b>
<b>Aviation</b>			
Dell T1650, Computers for student stations	26	\$1,300.00	<b>\$33,800</b>
21.5"/22" LED Display - Instructor Stations	6	\$182.99	<b>\$1,098</b>
21.5"/22" LED Display - Student Stations	48	\$182.99	<b>\$8,784</b>
NEC NP-U321HITM Projector	2	\$2,700.00	<b>\$5,400</b>
Projector, Screen Da-Lite 16:9, Wide Screen	4	\$325.00	<b>\$1,300</b>
Dell PowerConnect 3548P Ethernet 2 SFP Switch	2	\$180.00	<b>\$360</b>
<b>Marketing Materials</b> (media ads, flyers, postcards, etc.)	1	\$270,000	<b>\$270,000</b>
MDC TIES Exhibit Booth	1	\$50,000	<b>\$50,000</b>
<b>Supplies Totals</b>			<b>\$1,998,733</b>

e. Contractual



Consultants will be hired for curriculum development and modification. Curriculum will be developed for aircraft simulation maintenance technician certification, six new short-term programs in technology and computer science, and short-term programs in programming. Contractual costs will also be used to conduct an industry assessment for Miami-Dade County.

<b>F. Contractual</b>	<b>Qty.</b>	<b>Unit Cost</b>	<b>Total</b>
Curriculum Development for 6 new CCC (4-5 courses ea)	6	\$25,000	\$300,000
Curriculum revising for Aviation Maintenance Management	1	\$20,000	\$20,000
Flight Simulator Plan	1	\$10,000	\$10,000
Curriculum Development for Aviation Maintenance Tech Cert.	6	\$25,000	\$150,000
Curriculum Development for Idea Center programs	3	\$15,000	\$45,000
Gallup - Industry Assessment for Miami-Dade	1	\$342,000	\$342,000
<b>Contractual Totals</b>			<b>\$867,000</b>

f. Facilities

Funds are requested for the retrofitting of existing spaces throughout the College. The new spaces will be used for on-site Career and Training Centers at each of the eight campuses, the addition of Makers' Labs at four campuses, and retrofit space for the Flight Training Devices. Costs are estimated based on prior renovation projects at the College.

<b>G. Construction</b>	<b>Qty.</b>	<b>Unit Cost</b>	<b>Total</b>
Renovations for on-site Career Centers	8	\$125,000	\$1,000,000
Renovations for Makers Labs at 4 campuses	4	\$200,000	\$800,000
Renovations for Flight Simulator	2	\$100,000	\$200,000
<b>Construction Totals</b>			<b>\$2,000,000</b>

g. Training Costs

Training costs include funds for student stipends to participate in the short-term certificate programs; internship/apprenticeship stipends to assist employers associated with the costs of on-the-job-training; and for faculty training on the new curriculum developed through this project.

<b>K. Training Stipends</b>	<b>Qty.</b>	<b>Unit Cost</b>	<b>Total</b>
Stipends for Students	300	\$5,000	\$1,500,000
Internships / Apprenticeships stipends	100	\$10,000	\$1,000,000
Professional Development for Faculty (EnTec)	100	\$2,500	\$250,000
Professional Development for Faculty (Aviation)			\$175,000
<b>K. Total Training Stipends</b>			<b>\$2,925,000</b>

h. Indirect Costs

MDC has a federally negotiated indirect cost rate of 48.3%, but is only requesting 15% for this project. The base for indirect costs was calculated using the total direct costs (\$13,446,507) minus equipment (\$5,418,861) and training (\$2,925,000) costs.

J. Indirect Costs	Calculation	Total
Calculated at 15%	$\$13,446,507 - \$5,418,861 - \$2,925,000 = \$5,102,646$ $\$5,102,646 \times 15\% =$	<b>\$765,397</b>

**TOTAL REQUESTED**

Category	Total
Personnel	\$185,770
Fringe Benefits	\$51,143
Equipment	\$5,418,861
Supplies	\$1,998,733
Contractual	\$867,000
Facilities	\$2,000,000
Training Stipends	\$2,925,000
Indirect Costs	\$765,397
<b>TOTAL</b>	<b>\$14,211,904</b>

Estimating approximately 3,000 students to be served via MDC TIES, the cost per participant is \$4,737.

**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)?

Once the application is submitted to the funder, the Board of Trustees is presented with the proposed project, target population, and requested amount for review and approval. The approval is provided in case of an award as a way to not delay the implementation of the grant-funded project. For this application, the proposal will be presented to the Board of Trustees at their September 21, 2017 meeting.

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.

The following are the dates of the upcoming Board of Trustees meetings:

September 21, 2017

October 17, 2017

November 21, 2017

December 19, 2017



January 16, 2018 (tentative)  
February 20, 2018 (tentative)

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

If needed, the Board of Trustees can hold a special meeting.

# MDC TIES (Targeted Industries EcoSystem)

