

FLORIDA POLYTECHNIC

..... *University*

March 28, 2013

Progress Report to the Board of Governors

Preparing Leaders to Join the Technological Job Market

Presentation Overview

- Statutory Framework for Developing Florida Polytechnic University
- Board of Trustees
- Governance
- SACS Accreditation
- Mission Statement
- Administration
- Peer Institutions
- Identification of Emerging High-Tech Jobs
- Academic Program Analysis
- Campus Development Update
- Potential Industry and Academic Partners
- Faculty
- Students
- Collaboration Efforts

Statutory Framework for Developing Florida Polytechnic University

Florida Statutes §1004.345

By December 31, 2016, the Florida Polytechnic University shall:

- Achieve accreditation from SACS and seek discipline-specific accreditation for programs
- Initiate the development of new programs in the STEM fields
- Attain a minimum FTE of 1,244, with 50% or more of FTE in STEM fields and 20 % in programs related to those fields
- Complete the Science and Technology Building, Phase I of the Wellness Center, a residence hall, and infrastructure
- Have the ability to provide, directly or through shared services, administration of financial aid, admissions, student support, IT, and finance and accounting with an internal audit function

Board of Trustees

- Chairman Robert Gidel, Managing Partner of Liberty Capital Advisors
- Vice Chairman Mark Bostick, President of ComCar Industries, Inc.
- Bill Brown, President of Harris Corporation
- Joseph Caruncho, CEO of Preferred Care Partners
- Dr. Sandra Featherman, former President of the University of New England
- Dick Hallion, Research Associate in Aeronautics, National Air & Space Museum, Smithsonian Institute
- Scott Hammack, CEO of Prolexic
- Kevin Hyman, Executive VP of Bright House Networks
- Frank Martin, Senior VP of Atkins North America
- Bob Stork, CEO Communications International Inc.
- Don Wilson, Partner/Attorney with Boswell & Dunlap, LLP

Governance

Accomplishments

In the past 8 months the Florida Polytechnic University Board of Trustees has provided hands-on leadership and demonstrated their commitment to the University by holding more than 35 meetings. Major accomplishments are:

- Reaffirmed the need for a polytechnic university in Florida
- Defined Florida Polytechnic as an industry-engaged institution
- Drafted and approved the University's mission statement
- Examined alternative teaching models
- Approved collaborative partnerships
- Commissioned a survey of business and industry HR management to determine job skills
- Launched Florida Polytechnic's website
- Worked with USF to successfully negotiate separation of the assets
- Appointed members to the Florida Polytechnic University Foundation, Inc.
- Began promulgating regulations and policies
- Hired key administrative and academic leadership

SACS Accreditation

Timeline

February 2013: Florida Polytechnic University representatives initiated the accreditation process by attending the required Pre-Applicant workshop. The University and SACS established proper contacts.

March 2013: Commence preparation of the initial application to SACS.

August 2014: Enroll first class of students.

September 2014: Submit application to SACS.

December 2014: Achieve SACS candidacy status.

Spring 2016: Graduate first class of students.

December 2016: Achieve initial grant of accreditation.

Mission Statement

Focus on Meeting the Future Job Needs of Florida

Florida Polytechnic University's mission is to educate students emphasizing Science, Technology, Engineering and Mathematics (STEM) in an innovative, technology-rich, and interdisciplinary learning environment. The University collaborates with industry partners to offer students real-world problem-solving, work experience, and business leadership opportunities. Florida Polytechnic prepares students to assume available leadership positions in the dynamic technological landscape in Florida, the nation, and the world.

Mission implementation:

- Focusing on interdisciplinary programs, selecting innovative educational delivery models, responding to student and emerging industry demands
- Developing industry partnerships to create co-op, internship and applied research opportunities to create job-ready students
- Tying program selection to jobs identified in Enterprise Florida Clusters, Strategic Areas of Emphasis, and Department of Economic Opportunity's findings

Administration

University team in place:

- Ava L. Parker - Interim COO
- Ghazi Darkazalli, Ph.D., PE - Interim VP of Academic Affairs
- Gina DeIulio - VP of Administration and Asst. Corporate Secretary
- Maggie Mariucci - Dir. of External Affairs & Interim Dir. of the Foundation
- Dr. Joanne Chive - Dir. of Communications & Marketing
- Rick Maxey - Dir. of Governmental Relations
- John C. White- Architect/Project Manager
- Geralyn Bonfiglio-Sells-Construction Project Administrator
- Tom Browning- Building Code Administrator
- Administrative support persons (3)

Searches in progress:

- Asst. VP for Academic Affairs/Curriculum and Accreditation
- Dir. of Admissions/Registrar
- Admissions Counselor/Student Recruiter
- Budget Director
- Asst. Dir. of Institutional Research

Aspirational Peers

Potential Models for Planning Academic and Support Programs

- Stevens Institute of Technology
- Worcester Polytechnic Institute
- Virginia Polytechnic Institute and State University
- Arizona State University-Polytechnic Campus
- Rensselaer Polytechnic Institute
- California Polytechnic State University-San Luis Obispo

Identification of Emerging High-Tech Jobs

Board of Trustees Commissioned Reports

Science, Technology, Engineering & Math Landscapes: Trends & Models

Demand Analysis & Partnership Models

Assessment of Potential Program Offerings Based on Economic Trends in Florida

Analysis of Polk State College Programs for Potential Alignment with Florida Polytechnic University Proposed Programs

Review of Engineering Programs in SUS Institutions

Peer Institution Analysis

Faculty Contract Model Study

Compensation Study

Enrollment Projection Analysis

Identification of Emerging High-Tech Jobs

Organizations and Reports Considered

State Agencies

Florida Board of Governors
Department of Economic Opportunity
Enterprise Florida

State Agency Reports

Enterprise Florida 2010-2015 Statewide
Strategic Plan for Economic
Development, 2011

Enterprise Florida: Leadership for the
21st Century – Diversifying Florida's
Economy, 2011

Federal Agencies

U.S. Economic Development Administration
National Science Foundation
Department of Defense
Department of Energy

Academic Program Analysis

Program Analysis Factors

The Board identified 14 different factors to use in examining the initial programs. The factors included:

Employer Demand

- a) Occupation Code (Standard Occupational Classifications)
- b) Agency for Workforce Innovation annual percentage growth in Florida
- c) Bureau of Labor and Statistics annual percent growth in U.S.
- d) Relationship with Enterprise Florida Clusters and Strategic Areas of Emphasis

Emerging Fields

- e) Intensive interdisciplinary accelerated programs
- f) Industry needs

Academic Program Analysis

Program Analysis Factors

Additional Factors

- g) STEM offerings and enrollment growth in Florida
- h) STEM program offerings by national Polytechnic peers
- i) Access and Attainment Commission
- j) Availability of outstanding faculty
- k) Suitability for online instruction
- l) Cost data from SUS and Minnesota Detailed Cost Analysis
- m) Potential for innovative delivery models
- n) Availability of program elsewhere in the SUS

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Campus Development Update

Within Budget & On Schedule

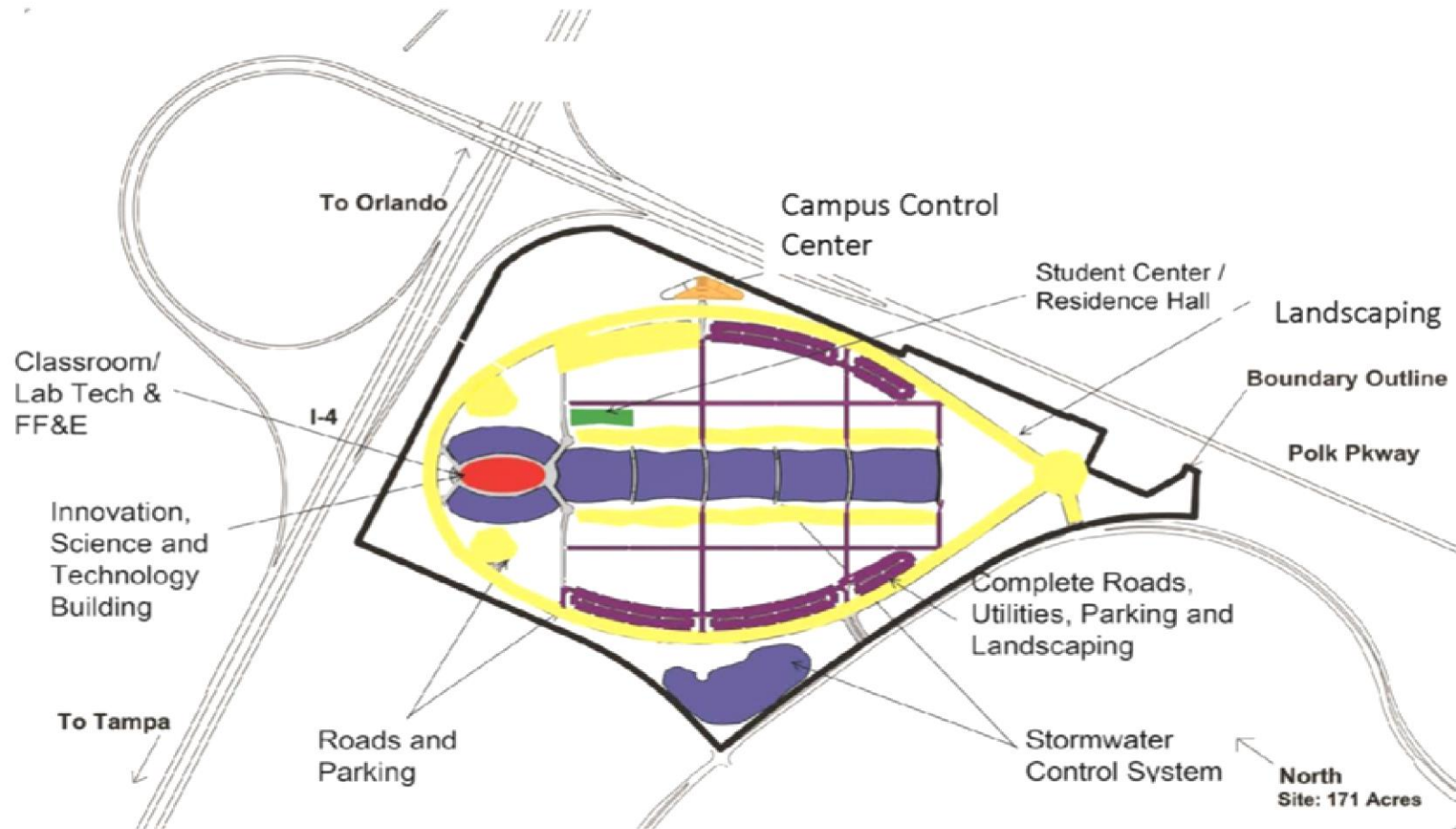
The Innovation, Science & Technology Building construction is on budget and on time with a move-in date of June 2014.

The Board has consolidated the **Wellness Center Phase 1 and the first Residence Hall** into one joint use facility to support the initial student population by providing living quarters, food services, laboratory space and classrooms. Future phases will be added to meet growth in enrollment.

The **campus infrastructure construction as well as the campus control center** are also on budget and on time for completion prior to Fall 2014 enrollment.

Florida Polytechnic University

Improvements Being Constructed to Open The Campus



Florida Polytechnic University

Lakeland FL New Campus - View Looking South



Florida Polytechnic University

Lakeland FL New Campus - View Looking North



Florida Polytechnic University

Innovation, Science & Technology Building



Potential Industry & Academic Partners

Discussions Have Begun

Business Groups

- Various High-tech businesses within Florida
- Florida Chamber of Commerce
- Council of 100
- Florida Economic Development Council

Federal Agencies

- U.S. Economic Development Administration
- National Science Foundation
- Department of Defense
- Department of Energy

Academic Institutions

- Other Universities, public and private
- Florida State Colleges
- K-12 Schools

In addition, Florida Polytechnic University will convene an August 2013 meeting with industry and business leaders to begin identifying the knowledge, skills and abilities our graduates need to possess.

Faculty

Parameters of Faculty Contracts

- Considering only non-tenure employment models such as incentive-based contracts
- Capacity for using emerging technologies
- Emphasize teaching as well as research
- Integrated (Team) teaching and cross-disciplinary instruction
- Practical experience
- Leadership experience

Students

- First Class of Students – Fall 2014
- Graduate and Undergraduate Research
- Industry Experience (internships)
- Leadership Learning
- Business Education
- Cross-disciplinary Learning
- Technology Integrated at All Levels of Instruction

Collaboration Efforts

Partners

Florida Board of Governors

- Provided guidance related to achieving SACS accreditation
- Provided guidance related to program planning
- Supported the newly independent university during its initial stages of development

University of Florida

- Entered into a shared services contract and have been providing finance, purchasing, legal, human resources and IT related services

Florida Poly Vision, Inc.

- Demonstrated support for an independent Florida Polytechnic University when a group of more than 100 local leaders chartered the organization in May 2012 for the sole purpose of ensuring the future and success of Florida Polytechnic University
- Agreed to co-sponsor the Florida Polytechnic University's industry conference to discuss skills needed by the University's graduates

Collaboration Efforts

Partners

Florida Polytechnic University Foundation, Inc.

- Incorporated with members appointed, officers elected
- Developed initial meeting schedule and are actively producing their first event on behalf of the University

University of South Florida

- Continued cooperation in transfer of assets to Florida Polytechnic University

Polk State College/State College System

- Discussed articulation and joint program opportunities

Classes Begin Fall 2014

Florida Polytechnic University begins
educating students to be job-ready for
emerging high-tech jobs!

Appendix

- Reports referenced in this presentation are available at the following link:

<http://floridapolytechnic.org/board-of-trustees-commissioned-report/>

Florida Polytechnic University

Forecast of Education and General (E&G) Operations

Fiscal Year Ending June 30

	2013	2014	2015	2016
Revenues				
General Revenue / Lottery				
State Allocations - Education and General	\$ 22,412,000	\$ 27,643,000	\$ 27,643,000	\$ 27,643,000
Plant, Operations and Maintenance	-	1,003,665	2,844,994	2,844,994
Tuition, Student Fees, Financial Aid				
Tuition, Student Fees, Financial Aid	9,626,321	-	-	-
Total Revenues	32,038,321	28,646,665	30,487,994	30,487,994
Operating Expenditures				
Salaries and Benefits	535,209	6,336,536	10,927,212	12,476,771
Other Personnel Services	15,000	180,000	250,000	350,000
Expenses:				
Utilities	6,000	247,186	967,277	1,118,909
Marketing & Advertising	15,000	660,000	920,000	920,000
Shared Services	668,733	1,123,778	1,614,048	1,617,776
Faculty & Staff Recruiting Costs; Consulting Fees	820,000	1,075,000	935,000	930,000
Other Expenses	2,263,273	4,546,992	7,915,384	7,238,021
Total Expenses	3,773,006	7,652,956	12,351,709	11,824,705
Operating Capital Outlay	-	280,000	350,000	350,000
Special Expenses	-	-	-	-
Financial Aid, Scholarships, Stipends	-	-	-	-
Total Operating Expenses	4,323,215	14,449,492	23,878,921	25,001,476
Unencumbered Revenues Over Expenses (Carryforward)	\$ 27,715,106	\$ 14,197,173	\$ 6,609,073	\$ 5,486,518

** See Accompanying Notes to Forecast **

Florida Polytechnic University

Notes to Educational and General Funds Financial Forecast

Revenues

General Revenue and Lottery

General Revenue and Lottery Funds are assumed to continue at FY 2012-13 levels (excluding the one-time pro rata reduction of approximately \$5 million which occurred in FY 2012-2013).

Plant, Operations and Maintenance revenue begins as new campus facilities open. Funding will be determined on a State University System formula.

Student Tuition and Other Fees

The figure that is shown in FY 2012-13 for Student Tuition and Other Fees relates to certain carry-forward and tuition funds generated in FY 2011-12 but prior to the formal transfer of assets and cash to the University on October 30, 2012.

Student Tuition and Other Fees has currently not been included within the forecasts for FY 2013-14 through FY 2015-16 as the University has not completed the enrollment projections.

Operating Expenditures

Salaries and Benefits

Salaries and benefits include all costs for Academic faculty and staff as well as Administration personnel, with benefit costs budgeted at levels consistent with the SUS. Departmental organizational charts are being created subsequent to the degree programs being identified so the University can determine the level of full time and adjunct faculty, graduate assistants, laboratory assistants, and Other Personnel Services staff. C-suite personnel are forecast as being added as the University size and complexity increases beyond the capacity of the UF agreement.

Other Personnel Services ("OPS"):

Hourly and contract staff estimates have been forecast for use in appropriate areas as the University needs increase, and student OPS employment will be offered as well.

Expenses

Shared Services includes the cost of the current agreement with the University of Florida ("UF") for accounting and other financial services, as well as estimates of future shared service costs. The levels of services to be achieved using in house personnel versus under an expanded agreement with UF are currently being examined by the new University staff.

Other expenses include software license and hardware maintenance contract costs, grounds and building maintenance, security, legal services, telecommunications, travel and entertainment, conferences and seminars, and other standard costs.

Operating Capital Outlay

Included are certain service vehicles as well as costs identified by the University for the establishment of its library. A more detailed review of major assets to be purchased is currently being performed by the University as it determines the levels of maintenance and other services performed in house or by third parties.

Carryforward

Carryforward funds shown on the accompanying statement have been reviewed by the University's Board and have been characterized as required to be designated as a part of the University's approved capital plan undertaken in order to develop the facilities necessary to comply with section 1004.345, Florida Statutes.

Note: Forecast statement excludes the revenue and expenses generated by the activities of the Florida Industrial and Phosphate Research Institute, as these activities essentially net to zero. This activity is currently being managed by the University of South Florida under an agreement with the University.

PROPOSED DEGREE PROGRAMS	
College of Innovation and Technology	
Degree	Fields
Bachelor's and Master's of Advanced Technology	Cloud Virtualization & Big Data Analytics
Bachelor's and Master's of Science	Logistics, Materials and Supply Chain
Bachelor's and Master's of Computer Science and Information Technology	Cyber Gaming, Information Assurance and Cyber Security
College of Engineering	
Degree	Fields
Bachelor's and Master's in Electrical and Computer Engineering	Control Systems, Magnetics, Digital Systems, Electrodynamics, Semiconductors
Bachelor's and Master's in Industrial Engineering	Multifunctional Materials Development, Geometric Dimensioning and Tolerancing, Motion Control

Program Characteristics

1. Real-time response to employers' needs
2. Focus on the T & E in STEM (Technology and Engineering)
3. Incorporate leadership, finance and management training into all programs
4. Undergraduate research required of all students in all programs beginning the sophomore year
5. Students will take engineering courses beginning their freshman year in order to improve retention (currently about 50% of engineering students drop out in the first two years).
6. Provide strong in class and out of class student support beginning with the freshman year.
7. 75% full-time job placement after graduation

Faculty

1. Non-tenure employment models with incentive-based contracts
2. Capacity for using emerging technologies
3. Emphasis on teaching as well as research
4. Integrated (Team) teaching and cross-disciplinary instruction
5. Practical applied science and engineering experience
6. Leadership and management experience

Student Recruitment

1. Agreements with STEM charter and magnet schools to serve as feeders.
2. International Students: South America, Far East
3. Summer program modeled after the Duke University TIP Program
4. 2+2 feeder programs with state colleges

Program Characteristics

Real-time Response To Employer Needs - Market conditions change rapidly and Florida Polytechnic University will be able to create new programs and modify existing programs in real-time in order to provide the high-tech workforce that companies need.

Focus on the T&E in STEM – In order to be adaptable to the needs of industry, Florida Polytechnic University is being developed as a Limited-Small-Focused university. Our limited number of high-tech programs, small student body and faculty allow us to produce graduates who are prepared to work immediately after graduation.

Incorporating Education in Leadership, Finance & Management – In response to Florida high-tech businesses, Florida Polytechnic University will incorporate extensive education in leadership, finance and management into all programs, preparing the students to assume leadership roles as well as front line positions.

Undergraduate Research – Students at Florida Polytechnic University will begin engaging in research during their sophomore year. This will give them the experience they need to excel in the workplace.

Engineering Courses in the First Two Years – Florida Polytechnic University will increase the typical first and second year retention rates of engineering students by incorporating engineering courses into the first two years of the program and providing enhanced student academic support beginning with the first course that its students take.

Strong Student Support – Students at Florida Polytechnic University will enjoy increased levels of support in all phases of student life. This level of support will allow students to engage more effectively in their academic pursuits.

Job Placement Rate of 75% - Florida Polytechnic University will partner with high-tech companies throughout the state to provide a direct pipeline of well-educated, ready to work graduates. Our philosophy centers around educating students for the job market with the skills Florida employers need to compete in the global market.

Faculty

Non-Tenure Employment Model – Faculty at Florida Polytechnic University will have multi-year contracts with measureable performance criteria. They will be rewarded for performance excellence in the classroom and in conducting their research.

Use of Emerging Technologies - Faculty at Florida Polytechnic University will be required to incorporate the latest proven technology as a component of their teaching.

Emphasis on Teaching and Research - Florida Polytechnic University faculty will be required to teach in the classroom and be involved in high-level applied research.

Integrated (Team) Teaching and Cross-disciplinary Instruction – Faculty at Florida Polytechnic University will collaborate with faculty in other disciplines to ensure that students learn how to integrate knowledge from various fields, as students will need to be able to do when employed.

Applied Science and Engineering Experience – Faculty at Florida Polytechnic University must have experience in teaching and conducting research in applied science and engineering.

Leadership and Management Experience - Florida Polytechnic University will recruit faculty who have exhibited leadership and management skills in their professions so that they can model and teach those skills to the students, regardless of the program.

Student Recruitment

Agreements with STEM charter and magnet schools – Administrators at Florida Polytechnic University have started conversations with public, charter and magnet schools that have outstanding STEM programs as a part of their recruitment effort.

International Students: South America, Far East – In addition to recruiting talented high school students from Florida and the rest of America, Florida Polytechnic University will seek to bring to its campus some of the brightest international students from economic partners in South American and the Far East.

Summer Academic Program - Florida Polytechnic University will establish a summer program for STEM talented middle and high school students, modeled after Duke University's TIP Program. Middle and high school students will spend several weeks every summer on the university's campus.

State College 2+2 Feeder Programs - Florida Polytechnic University will establish partnerships with state colleges and will grant admission to students who earn Associate of Science degrees in specially designed programs that prepare them for upper level academic work at Florida Polytechnic University.

Curriculum Development Timeline



Community Issue Performance Evaluation

1. State Agency:

Florida Polytechnic University (not a community issue but submitted, as requested)

2. State Program (or Type of Program):

Education & General

3. Project Title:

Polytechnic Operations

4. Recipient name and address: Florida Polytechnic University, 439 South Florida Avenue, Suite 300, Lakeland, FL 33801

Location county/counties: Polk County

5. Is the recipient a governmental entity, a private non-profit entity, or a private for-profit entity:

Governmental entity

6. <u>FUNDING:</u> FY 2012-13 Recurring General Revenue	FY 2012-13 Recurring Trust Funds	FY 2012-13 Recurring TOTAL FUNDS	GAA Specific Appropriation Number (ch. 2012-118, L.O.F.)
\$22,043,995 Gen Rev 367,509 Lottery	\$0	\$22,411,504	2012-118

7. FY 2012-13 GAA proviso specifically associated with the project (if any): Not Applicable

8. Project Purpose/Description: The purpose of the project is to develop Florida's 12th state university- Florida Polytechnic University- a STEM institution that will focus on applied research and admit freshmen, junior transfers and graduate students. Doors will open for the inaugural classes in 2014.

9. Number of years this project has received state funding: The project has received funding for four years- 2009-10, 2010-11, 2011-12 and 2012-13. While Florida Polytechnic University was created in 2012, the project received funding as USF Polytechnic for several years prior to the separation.

10. Does this project align with the core missions of the agency or the program area in which it is funded? (Explain): This response is not referring to a special project of Florida Polytechnic University. This response is regarding the recurring operating budget of the university. The operating budget will be used to implement the mission of the university – *“Florida Polytechnic University’s mission is to educate students emphasizing Science, Technology, Engineering and Mathematics (STEM) in an innovative, technology-rich, and interdisciplinary learning environment. The University collaborates with industry partners to offer students real-world problem-solving, work experience, and business leadership*

opportunities. Florida Polytechnic prepares students to assume available leadership positions in the dynamic technological landscape in Florida, the nation, and the world."

11. Does the program meet a demonstrated need in the community that is not otherwise being met?

(Explain): Yes. Florida Polytechnic University meets a need that is not being met in Polk County or the state of Florida. Florida Polytechnic University is the only state university in Florida that is focused on technology and engineering, developing partnerships with business and industry in curriculum development, and training and producing graduates who are leaders and prepared for high-tech jobs.

12. What are the intended outcomes/impacts and benefits of the project? The intended impact is that the state of Florida will have a state funded, nimble institution that responds to state and global economic trends and places a minimum of 75% of its graduates in high-tech jobs.

13. What performance data does the agency/entity regularly collect and report that demonstrates the value of the program to the State of Florida?

☐ Output data (e.g., number of clients served, students educated, units produced); Enumerate:

☐ Outcome data (data on the effectiveness or quality of services, e.g., percentage of clients successfully completing treatment); Enumerate:

☐ Unit cost data (e.g., cost per unit produced); Enumerate:

☐ Other (Explain):

No performance data is available for the institution. It will start its first class in 2014.

14. How is program data collected and has it been independently validated for accuracy and completeness?

No program data is available to date. However, Florida Polytechnic University will develop metrics and measures to ensure that it is developing effective and efficient programs.

15. Is there an executed contract between the agency and the recipient? Florida Polytechnic University does not have an executed contract for its operating budget. However, it does have specific statutory deliverables and deadlines.

16. If there is a contract, are the outputs, measures and costs specified in a contract between the agency and the recipient? Not applicable.

17. How do the unit costs compare to those of comparable or alternative projects or services? (EXPLAIN AND SPECIFY): Not applicable.

18. Based on performance data, is this project meeting the expected outputs and having the intended outcomes? (Explain): Florida Polytechnic University does not have performance data, but it has

developed a plan to ensure that it will have the expected outcomes and meet the deliverables established in the statute.

19. Describe how the information upon which the answer above is based was obtained and validated: The Board of Trustees of Florida Polytechnic University developed the mission and plan to support the Legislative intent of the statute.

20. How much additional funding or matching funding from non-state sources is available for this project and what are the sources? We have not received any additional funding from non-state sources to support the operating budget.

21. List any audits or evaluative reports that have been published for this project (including website links, if available): Florida Polytechnic University is scheduled for its first audit of funds received in 2012-13.

22. Provide any other information that can be used to evaluate the performance of this project: No additional information

23. CONTACT INFORMATION for person completing this form:

Name: Ava Parker

Title: Chief Operating Officer

Phone number and email address: 863-583-9079 avaparker@floridapolytechnic.org

Date: March 23, 2013