



The Florida Senate

Local Funding Initiative Request - Fiscal Year 2018-2019

1. **Title of Project:** FIU - Targeted STEM Initiatives

2. **Senate Sponsor:** Anitere Flores

3. **Date of Submission:** 11/13/2017

4. **Project/Program Description:**

The Targeted STEM Initiatives targets transformation the undergraduate engineering, computer science, and STEM student experience through implementing evidence-based instructional practices and assessments

5. **State Agency Contacted?** No

a. If yes, which state agency?

b. If no, which is the most appropriate state agency to place an appropriation for the issue being requested? Board of Governors

6. **Amount of Non-recurring Requested for fiscal year 2018-19:**

Amount Requested for Operations	Amount Requested for Fixed Capital Outlay	Total Amount of Requested State Funds
3,895,334	1,100,000	4,995,334

7. **Type, amount and percent of matching funds available for this project for fiscal year 2018-19:**

Type	Amount	Percent
Federal	0	0.0%
State (excluding the amount of this request)	0	0.0%
Local	0	0.0%
Other	0	0.0%
TOTAL	0	0.0 %

8. **Total Project Cost for fiscal year 2018-19 (including the Total Amount of Requested State Funds):** 4,995,334

9. **Previous Year Funding Details:**

a. Has funding been provided in a previous state budget for this activity? No

b. In the previous 5 fiscal years, how many years was funding provided? (Optional)

c. What is the most recent fiscal year the project was funded?

d. Were the funds provided in the most recent fiscal year subsequently vetoed?

e. Complete the following Worksheet.



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FY:	Input Prior FY Appropriation for this project for FY 2017-18 (If appropriated in FY 2017-18 enter the appropriated amount, even if vetoed.)		
Column:	A	B	C
Funds Description:	Prior Year Recurring Funds *	Prior Year Nonrecurring Funds *	Total Funds Appropriated (Column A + Column B)
Input Amounts:			

10. Is future-year funding likely to be requested?

Yes

a. If yes, indicate non-recurring amount per year.

Yes \$1,100,000 non-recurring.

11. Program Performance:

a. What is the specific purpose or goal that will be achieved by the funds requested?

FIU's Targeted STEM Initiatives will transform and reengineer STEM programs and courses to optimize the retention, graduation, marketability, and career creation and placement of engineering and computer science students--thereby launching a new engineering paradigm. The project will lead to more highly prepared STEM professionals, especially engineers and computer scientists, ready to drive the State's economic prosperity through innovation and entrepreneurship.

b. What are the activities and services that will be provided to meet the intended purpose of these funds?

The Initiative's primary activities include 1) integrate best program-of-study practices into the first-year engineering and computer science programs; 2) deploy state of the art evidence-based instruction and advanced classroom assessment throughout critical STEM courses for all engineering and computer science majors; 3) implement interventions that promote mental health and wellness, especially for first generation and millennial students; and 4) establish an Engineering Education Research Department to propagate best practices, assess initiative practices, and provide critical feedback to the institutional and State stakeholders to facilitate greater efficiencies through shared system resources.

c. How will the funds be expended?

Spending Category	Description	Amount
Administrative Costs		
<input checked="" type="checkbox"/> Executive Director/Project Head Salary and	N/A	0



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Benefits		
<input checked="" type="checkbox"/> Other Salary and Benefits	Administrative Assistant to support project activities (orders, payments, tracking, etc)	59,949
<input checked="" type="checkbox"/> Expense/Equipment/Travel/Supplies/Other	Expenses, equipment and supplies for project administration, includes computer for administrative assistant and office supplies.	5,000
<input type="checkbox"/> Consultants/Contracted Services/Study		
Operational Costs		
<input checked="" type="checkbox"/> Salary and Benefits	Salary and benefits for 10 engineering education research and DBER faculty, 20 faculty participating in Faculty Institute, 300 undergraduate LAs, 12 graduate student fellowships, 3 post-doctoral researchers, & 5 program operations staff.	3,630,385
<input checked="" type="checkbox"/> Expense/Equipment/Travel/Supplies/Other	Expenses, equipment and supplies for project staff and project operations. Includes \$55,000 in travel to bring national leaders in STEM education to FIU, visits to cutting edge programs and facilities, and present outcomes across state and nation.	200,000
<input type="checkbox"/> Consultants/Contracted Services/Study		
Fixed Capital Construction/Major Renovation		
<input checked="" type="checkbox"/> Construction/Renovation/Land/Planning Engineering	Renovation of 4 existing traditional classrooms into active learning classrooms	1,100,000



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	targeting engineering and computer science students. 2 LA Commons Hubs with informal study space, small teaching labs and one classroom each.	
TOTAL		4,995,334

d. What are the direct services to be provided to citizens by the appropriations project?

The primary services are transformed educational experience for students taking STEM courses, especially engineering and computer science students. More specifically, the freshman engineering and computer will integrate skills development courses and upper division courses will integrate evidence-based instruction, thus leading to improved retention and graduation. Classrooms will be renovated to enable optimal collaborative learning. Faculty will participate in professional development so they may carry out and sustain the changes. New faculty will be hired to lead and measure impacts of these reforms. Undergraduate Learning Assistants will be hired to help facilitate the changes.

e. Who is the target population served by this project? How many individuals are expected to be served?

FIU undergraduates are primary audience, including approximately 11,000 STEM majors and especially 4,290 engineering and computer science majors to ensure they graduate and get jobs.

f. What is the expected benefit or outcome of this project? What is the methodology by which this outcome will be measured?

Students will have improved knowledge and skills for STEM subjects, especially engineering and computer science. They will have increased first-year retention and graduation rates, and likely improved employment and first year salaries. Measures will include cognitive instruments and other validated research instruments, grades and GPAs, retention and graduation rates, and employment data. Comparisons will be made to matched sets of students not in the treatment group as well as to prior students. Measures of the research outcomes will include publications and external proposals spawned by the work.

g. What are the suggested penalties that the contracting agency may consider in addition to its standard penalties for failing to meet deliverables or performance measures provided for in the contract?

None.

12. The owner(s) of the facility to receive, directly or indirectly, any fixed capital outlay funding. Include the relationship between the owner(s) of the facility and the entity.

Florida International University

13. Requestor Contact Information:

- a. **Name:** Kenneth G. Furton
- b. **Organization:** Florida International University



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- c. **Email:** furtonk@fiu.edu
- d. **Phone Number:** [\(305\)348-2151](tel:(305)348-2151)

14. Recipient Contact Information:

- a. **Organization:** [Florida International University](#)
- b. **County:** [Miami-Dade](#)
- c. **Organization Type:**
 - For Profit
 - Non Profit 501(c) (3)
 - Non Profit 501(c) (4)
 - Local Entity
 - University or College
 - Other (Please specify)
- d. **Contact Name:** [Michelle Palacio](#)
- e. **E-mail Address:** palaciom@fiu.edu
- f. **Phone Number:** [\(305\)348-3505](tel:(305)348-3505)

15. If there is a registered lobbyist, fill out the lobbyist information below.

- a. **Name:** [Christopher Cantens](#)
- b. **Firm:** [Florida International University](#)
- c. **Email:** ccantens@fiu.edu
- d. **Phone Number:** [\(305\)348-3505](tel:(305)348-3505)