

**State University System
Florida Board of Governors
2017-2018 Legislative Budget Request Instructions
Forms I and II**

The main objective of Form I and Form II is to align the university's budget issues and dollar values with the goals and objectives of the strategic priorities and the 2016 University Work Plan established by each university.

For FY 2017-2018, each university should submit one Form I and Form II for each budget issue and any system-wide issue identified as a critical system-wide need. Any issues unique to a branch campus or a special unit (e.g., IFAS Workload Initiative) should not be rolled into the main campus request, but reflected separately by use of the forms provided.

For system-wide issues, consideration will be given to issues that allow for greater efficiencies through shared system resources or identified as a system-wide need. If requesting funds as such, please list all university participants of the initiative and check the box "Shared Services/System-Wide Issue".

For new issues identified by a university as a priority issue for 2017-2018, please check the box "New Issue for 2017-2018".

Please keep in mind that all issues submitted for consideration by the Board should align with the goals and objectives of the strategic priorities and work plan established by each university.

**State University System
Education and General
2017-2018 Legislative Budget Request
Form I**

University(s):	Florida International University
Issue Title:	FIU UP:LIFT (University Paradigm: Learn, Interact, Facilitate, Transform)
Priority Number	
Recurring Funds Requested:	\$4,195,314
Non-Recurring Funds Requested:	\$ 800,000
Total Funds Requested:	\$4,995,314
Please check the issue type below:	
Shared Services/System-Wide Issue for Fiscal Year 2017-2018	<input type="checkbox"/>
New Issue for Fiscal Year 2017-2018	<input checked="" type="checkbox"/>

- I. Description** - 1. Describe the service or program to be provided and how this issue aligns with the goals and objectives of the strategic priorities and the 2016 Work Plan established by your institution (include whether this is a new or expanded service/program). If expanded, what has been accomplished with the current service/program? 2. Describe any projected impact on academic programs, student enrollments, and student services.

Program Overview

FIU will expand the **UP:LIFT (University Paradigm: Learn, Interact, Facilitate, Transform)** initiative that is deploying state of the art evidence-based instruction, learning technologies, and advanced classroom assessment throughout critical Gateway and STEM courses. The critical Gateway courses are high enrollment, foundational courses that have been found to have high failure rates and/or are predictors of students leaving college. The State's economic prosperity drives us to target both the foundational and STEM courses. The initiative integrates FIU's two most impactful student success initiatives, the Graduation Success Initiative (GSI) and the STEM Transformation Institute, to create a new institution-wide paradigm for classroom instruction and student success and expand to hybrid and online classes for the benefit of our students while increasing space efficiencies.

UP:LIFT will prepare faculty to implement the best instructional and assessment practices in their Gateway and STEM courses to improve student success, graduation

rates, and programmatic efficiencies so that FIU students develop real-world skills through timely, cost-effective programs. Research and assessment of the student learning impacts resulting from the course transformations will be a core innovation that provides continuous feedback on the implementation as well as spur expansion across FIU and Florida's universities and colleges through an annual UP:LIFT Symposium. The initiative's ultimate goal is to be a sustained producer of a highly skilled and highly adaptable workforce that will serve as a launch pad for innovation and startups as well as attract high-tech companies to South Florida.

The initiative capitalizes on the opportunities afforded by the breadth of effective evidence-based instructional techniques, wide availability of technological devices that can be utilized for learning, and FIU's growing expertise in preparing faculty to implement evidence-based instruction in their classrooms. Effective active learning techniques are well established and understood, yet propagation of these techniques across the Gateway and STEM courses is often limited to faculty with expertise in evidence-based instruction. Faculty often teach as they were taught in college, using lectures as the primary method; thus the barrier to innovative instruction is sufficient, effective professional development. FIU has established pilot interventions validating this approach. The UP:LIFT initiative provides the resources, professional development, and assessment necessary for scaling effective course transformation, thereby providing our students with the best instructional practices available in the nation.

Specific objectives include:

- Operate Discipline-based Education Research (DBER) UP:LIFT team: 10 DBER faculty will be supported, including 6 new faculty hires as well as 4 faculty hired for the 2016/17 academic year. These highly-skilled faculty will provide leadership in Learning Technologies and Evidence-based Instruction implementation and measurement. These faculty will serve as leaders in their discipline with respect to establishing a culture of student learning and progression that will drive the 4 year degree completion agenda. The 2016/17 UP:LIFT project attracted four top DBER faculty to FIU including two biology, one computer science and one earth science education researchers. New hires will target established leaders in their disciplines as well as top junior candidates.
- Operate UP:LIFT Faculty Institute: We will operate the Faculty Institute to prepare current and incoming faculty to implement evidence-based instruction in their classroom. The Institute will operate year round to provide professional development to faculty prior to and during instruction. The Institute will incorporate analysis of instructional data as well as provide further professional development to extend the course innovation based on evidence. Incoming faculty will be encouraged to arrive in summer to participate, allowing them to be successful from day one.
- Provide 400 Learning Assistant Stipends to top FIU students: Undergraduate Learning Assistants (LAs) have been critical catalysts in transformation of STEM courses at FIU, as they facilitate learning with their peers while deepening their understanding of content and collaboration. LAs improve the success of students in transformed courses, increasing retention and completion. These prestigious scholarships will elevate the LA program, improve success of faculty course

transformations, and expand the LA program beyond the STEM disciplines. LAs also experience improved learning as a result of the experience, thereby serving to improve Florida's workforce. Four hundred \$3,000 LA Stipends will be awarded annually. Learning Assistants (LAs) are undergraduates who are hired to facilitate small-group interaction in large-enrollment courses. LAs are paid a modest stipend (\$1,500/semester) to work 10 hours per week in various aspects of course transformation. This also supports our students who economically may need to work for supplemental income – they are employed, while on campus and therefore still able to maintain full time enrollment and timely graduation.

- Award 10 DBER Graduate Fellowships: A prestigious graduate student research fellowship program will be created both to develop skills as future university educators and researchers. These Discipline-based Education Graduate Researchers (DBER) will work with the DBER faculty to implement and provide data on student impact and improved faculty instruction.
- Hire 3 Post-doctoral education researchers: The researchers will assess impact of the innovative instructional strategies through student learning outcomes and classroom observations. Their work will be incorporated into the continuous improvement feedback loop.
- Hire 6 Staff for program operations: Two LA Program Directors will be hired to manage the LA program and prepare faculty to effectively integrate LAs into their active classrooms, working with faculty and undergraduate LAs. One Faculty Developer with expertise in education transformation will be hired to prepare faculty to implement Learning Technologies and Evidence-based Instruction in their classroom. The Developer will provide year-round support and feedback. One Data Analyst will be hired to carry out statistical analyses on the project as well as develop data analytics dashboards for STEM stakeholders. The project will be managed by a program manager and an administrative assistant to support the 447 faculty and staff UP:LIFT team members.
- State Wide UP:LIFT Symposium: We will launch an annual UP:LIFT Symposium to disseminate the initiative's innovative model to all SUS / FCS sites. Faculty, staff, administrators from the institutions as well as members of the BOG will be invited to attend and participate. Funding includes operation of the three-day Symposium as well as travel support for participants.
- Classroom Renovation: Existing traditional classrooms will be renovated to facilitate active learning using state of the art facilities. FIU has transitioned to active-learning, technology-driven classrooms to promote student engagement of content during class time and dissuading the use of lecture by faculty. New classrooms are now routinely built as active learning classrooms with access prioritized for faculty utilizing active learning and thus incentivizing the best instructional practices. In spring 2016, the recently opened active learning classroom averaged over 80% utilization by active STEM courses. However requests for the active learning rooms persistently outpace availability and thus we include support for classroom renovations. We include funding for one-time retrofit of four of our more outdated classrooms that do not have the design and technological infrastructure that is required by state-of-the-art teaching and learning classrooms.

Related Accomplishments

UP:LIFT leverages several initiatives that have brought significant change to the university, integrating them into a university-wide initiative. The STEM interventions began in physics, expanded into multiple STEM disciplines, and are now being led through the STEM Transformation Institute. Evidence of success in the reformed introductory physics courses includes significantly improved conceptual learning, the first reported increase in student attitudes towards physics, and a sustained 40% increase in the passing rate, when compared to traditional courses. This has led to a dramatic increase in the number of physics majors and national recognition for FIU's success.

FIU is now clearly focused on raising the 4 year graduation rate. We build our efforts on the foundational success of our Graduation Success Initiative (GSI). FIU's GSI has helped to raise the six-year graduation rate for First Time in College students (FTICs) by 16 points in its first four years (<http://undergrad.fiu.edu/gsi/gsi-news.html>). GSI efforts first addressed students' choice of a major and a clear trajectory for each major and enhanced advising; and also aimed to remove barriers and add supports in the path. Institutional analytics determined that poorly performing gateway courses are a significant barrier in students' path to timely graduation, leading to Gateway Course improvements.

The first major success in the Gateway Course initiative was the comprehensive transformation of the College Algebra course, leading to a 33% increase in passing rates for all students. Improvements in the pass rate for the College Algebra course has saved 1860 seats since fall 2012 (compared to Fall 2010 baseline). This is an efficiency measure, a cost savings (to our students) measure as well as reduces excess hours thereby improving timely graduation.

At the core of both the STEM and Gateway initiatives are interventions that 1) adapt evidence-based instructional practices to the FIU context; 2) require engaged active learning by students in the classroom; 3) are initiated by external grant or foundation funding; and 4) integrate undergraduates, faculty, and administration in the transformation.

One powerful and cost-effective approach is the undergraduate Learning Assistant (LA) program, which provides undergraduates with the opportunity to experience the reward of teaching, develop skills to engage in the challenges of effective instruction, and deepen their content knowledge. At the same time, they serve a critical role as dedicated and skilled facilitators in the classroom, thus easing the transition for both students and faculty to active learning. FIU hosts the nation's largest LA program, with 259 LAs serving in 161 course sections across 10 STEM departments, impacting over 10,560 enrollments in Spring 2016. Lessons learned in these initiatives are spreading into other courses, where pilot projects have seen an average increase in passing rates of 18% across 7 courses (two of which increased over 25%), which will translate to improved graduation rates in the coming years. Further, enrollment in one transformed course more than quadrupled over the past several years, doubling in annual offering as well as enrollment. On-time graduation rates have also increased 16% in four years.

The initiative's ultimate goal is to attract high technology companies to Florida, as well as fuel entrepreneurial innovation, thus driving the economic prosperity of the state. This will be achieved both through the reputation earned by our graduates as well as through the evidence on student learning outcomes accumulated through the initiative. Further, the initiative includes an annual UP:LIFT Symposium for State University and College faculty and administrators to disseminate best practices across the state. This provides the opportunity to position Florida as the first in the nation to implement evidence-based instruction and learning technologies throughout the institution.

Alignment with SUS Strategic Priorities / 2016 FIU Work Plan

FIU's UP:LIFT is well aligned with the SUS Strategic Priorities in Teaching & Learning; Scholarship, Research & Innovation; and Community & Business Engagement. First, it will increase the number of degrees awarded at FIU, especially in STEM and health areas, as well as the quality of those degrees by transforming instructional practices. Second, it will increase research commercialization activities through providing a workforce well-prepared for driving a knowledge economy and triggering start up companies. Further, the classroom transformation education research outcomes have the potential to lead to commercialization. Third, it directly increases the community and business workforce, as our graduates will be well prepared to be fully employed upon graduation or to seek further educational opportunities.

The initiative immediately addresses the SUS Strategic Priorities, including:

- **Strategic Priorities for a Knowledge Economy: GOAL: Increase the Number of Degrees Awarded in STEM/Health and Other Programs of Strategic Emphasis** *Increase student access and success in degree programs in the STEM/Health fields and other Programs of Strategic Emphasis that respond to existing, evolving, and emerging critical needs and opportunities.* UP:LIFT directly addresses improving both the quantity and quality of STEM degree recipients.
- **Strategic Priorities for a Knowledge Economy GOAL: Increase Research Commercialization Activities:** *Increase the number of patents, licenses and start-up companies created as a result of university research.* Project develops students' inquiry, collaboration and out-of-the-box thinking skills, thus providing them the opportunity to make authentic and significant contributions to the knowledge economy.
- **Strategic Priorities for a Knowledge Economy: GOAL: Increase Community and Business Workforce** *Increase the percentage of graduates who continue their education or are employed full-time.* The project optimizes the preparation of STEM majors so they may either continue their education or are rapidly brought into the workforce.

The initiative immediately addresses FIU's 2016 work plan goals and objectives, including:

- Mission: Provides *high-quality teaching and state-of-the-art-research* for our students and diverse population of South Florida.
- Vision: Provides *student learning, innovation, and collaboration*.
- Strategy: Bringing the best educational and research practices establishes a *solutions center for the community and a catalyst for innovation and entrepreneurship in the region*. It takes *responsibility to our community seriously and has reoriented efforts to be more effective and efficient, to support student success, job preparation and creation and economic development*. FIU has accepted a leadership role in a number of community and industry initiatives that are pivotal to our collective future success.
- Strategy: Integrated into FIU *Beyond Possible 2020* Strategic Plan that will *increase the number of graduates by 20% by 2020 to meet the educated workforce needs of South Florida*.
- Strategy: Aligned to *Beacon Council's One Community One Goal (OCOG)* strategic plan, which is an economic development initiative targeted to growing industries and strengthening the local economy. The plan pivots around education as the foundation for Miami-Dade County's economic development, calling for a new ecosystem of growth.
- Strategy: Undergirds FIU's emergence as *top tier of doctoral research universities in the U.S. with the designation of R1: Doctoral Universities – Highest Research Activity* in Carnegie's Basic Classification of universities. As well, facilitates FIU achieving *BOG Emerging Preeminence and, ultimately, Preeminence status*, through advancing growth opportunities for increasing the number of postdoctoral fellows, number of doctoral degrees, research expenditures, Science and Engineering (S&E) research expenditures, and ranking for the National Science Foundation's S&E disciplines.
- Key Initiatives & Investments 1) Student Success: Directly impacts *The Florida Consortium of Metropolitan Research Universities that will drive economic development by creating synergies and efficiencies among the state's three largest metropolitan public research universities*. UP:LIFT improves instruction 1) to fuel the state economy; 2) to increase the number of graduates in high-demand areas; 3) to increase the number of underrepresented and limited-income students graduating with the skills and credentials required by Florida employers; and 4) to emphasize career readiness and success for our graduates.
- Key Initiatives & Investments 1) Student Success: Committed to a *comprehensive multi-year plan to fundamentally reform pedagogy at the university in line with best practices in college teaching, particularly in gateway undergraduate courses that affect student success as measured by retention and on-time graduation*.
- Key Initiatives & Investments 2) Preeminent Programs: Develops *World's Ahead university that creates an innovation nexus where preeminent programs and teams drive research, creativity, innovation, and education*.
- Key Initiatives & Investments 2) Preeminent Programs: *strengthen FIU's capacity to provide high-quality teaching, engage in state-of-the-art research and*

creative activity, and collaborate with our local and global communities. We will design and chart our best future as a university by identifying and leveraging those FIU programs that will help us become a leading urban public research university in the 21st century.

- *Key Initiatives & Investments 2) Preeminent Programs: recruitment of the highest quality faculty, graduate students, and postdoctoral fellows. As part of the FIUBeyondPossible2020 Strategic Plan, FIU is embarking on a Cluster Hiring Initiative which will dedicate replacement and new faculty lines into the university's preeminent programs.*
- *Key Initiatives & Investments 3) StartUP FIU: core mission of StartUP FIU is to foster a culture of innovation and entrepreneurship at FIU and beyond through collaboration and partnerships. Develops students' inquiry, collaboration and out-of-the-box thinking skills, thus providing them the opportunity to make authentic and significant contributions to StartUP FIU.*
- **Institution Specific Goal Metric #1: Bachelor's Degrees Awarded to Minorities:** Directly impacts the number of degrees awarded to our diverse student population.
- **Institution Specific Goal Metric #2: Bachelor's Degrees in Areas of Strategic Emphasis:** Directly impacts the number of degrees awarded to strategic areas including STEM.
- **Institution Specific Goal Metric #3: Graduate Degrees in Areas of Strategic Emphasis:** Directly impacts the number of graduate degrees awarded to strategic areas including STEM.
- **Institutional Goal 1: FIUBeyondPossible2020 Strategic Plan calls for transforming the mode of instruction by increasing hybrid and online education:** UP:LIFT will increase use and impact of hybrid and online courses.
- **Institutional Goal 2: FIUBeyondPossible2020 Strategic Plan calls for increasing internships to 6,000 by year 2020.** The Learning Assistants program provides experiential internships in education for undergraduates, thus directly impacts this goal.

Impact on Academic Programs, Student Enrollments, Student Services

Fifty percent of FIU students will experience evidence-based instruction in at least one course within a year, and all students will experience evidence-based instruction in at least five courses within three years. All undergraduate programs will have the majority of courses taught using evidence-based instruction within five years. These transformations will reduce individual course failure rates by at least 30% within two years of implementation, leading towards an overall goal of an additional 15% increase in graduation rates. This goal is aligned with the standard of excellence as established by the SUS Performance Funding Metrics.

II. Return on Investment - *Describe the outcome(s) anticipated, dashboard indicator(s) to be improved, or return on investment. Be specific. For example, if this issue focuses on improving retention rates, indicate the current retention rate and the expected increase in the retention rate. Similarly, if it focuses on expanding access to academic programs or student services, indicate the current and expected outcomes.*

UP:LIFT leverages existing commitments to education transformation and a national climate devoted to classroom education reform. It will increase research capacity and funding opportunities that will lead to increased grant funding, improved student performance, and national recognition. Further, it will stimulate adoption of similar instructional innovation at universities and colleges across the state. The initiative explicitly targets: preparing faculty to implement innovative instruction in the classroom, gathering and analyzing classroom data, and disseminating the classroom transformation model across the state. These actions will lead to improved student learning and success in STEM courses that will lead to improved retention and graduation rates.

The intensive Faculty Institute will provide professional development to least twenty additional faculty annually in integrating evidence-based instruction, cutting edge assessment, and learning technologies in their classrooms. This will directly impact approximately 12,000 student enrollments annually, and they will continue to impact similar student enrollments in later years. The majority of FIU students will enroll in at least one renovated course within three years of starting the initiative.

The model for faculty professional development will be established through research on faculty practices and student impact. It is anticipated that this will lead to production of at least 100 scholarly products (publications and presentations) annually in the first three years, growing to at least 150 within five years.

State university and college dissemination will be through the annual 3-day UP:LIFT Symposium. We will host 150 faculty and administrators from the SUS and FCS at the symposium each year. Impact of the symposium will be determined by investigations of teaching practices and student success at state institutions.

The initiative will also drive improved student learning and success in the courses, leading to improved retention and graduation rates. Student learning outcomes are a key driver to sustained instruction (as well as a critical feedback loop element) and will be reported through the scholarly products. Based on prior FIU initiatives and national trends in active learning, we expect a 40% decrease in failure rates in large enrollment introductory courses within four semesters of implementing evidence-based instruction. For the courses with failure rates of 20-40%, this translates to an 8-16% decrease in failure rate. We expect this to increase an additional 10% within 3 years and be sustained for at least a decade. We base this on prior work at FIU and active learning literature. At FIU, College Algebra passing rates increased 33% since Fall 2012 when evidence-based instruction was introduced across all sections (a 49% decrease in passing rates). We have also seen a 70% decrease in failure rates in our studio-based introductory physics courses, compared to lecture courses. A 2014 Proceedings of the National Academies of Science publication found an average 35.5% decrease in reported failure rates when comparing

active learning in all STEM disciplines to lecture courses
(www.pnas.org/cgi/doi/10.1073/pnas.1319030111).

UP:LIFT will transform the education experience for FIU's 11,000 STEM majors, over 80% of which are from traditionally underrepresented minority groups, as well as students from all majors enrolled in the Critical Gateway courses. The Gateway courses include 17 high enrollment (>1,600), high failure (>15%), high impact (strong predictor of dropping out or delayed graduation) courses. In 2013-2014, the combined enrollment for these 17 courses was 41,557.

Ultimately, UP:LIFT drives economic development by substantially improved learning and skill development for our students, as well as improved efficiency in degree attainment. Our graduates will be well prepared to tackle existing, evolving, and emerging critical needs and opportunities in the global society and marketplace. They will be the innovators, entrepreneurs, and start up leaders of the future. Their reputation for solving global challenges will attract the top technology companies to South Florida. Thus FIU's UP:LIFT will be *the* reliable catalyst for South Florida's highly skilled and diverse workforce.

III. Facilities (*If this issue requires an expansion or construction of a facility, please complete the following table.*):

	Facility Project Title	Fiscal Year	Amount Requested	Priority Number
1.	Active Learning Room Renovations	2017/18	\$800,000	
2.				

**2017-2018 Legislative Budget Request
 Education and General
 Position and Fiscal Summary
 Operating Budget Form II
 (to be completed for each issue)**

University: Florida International University
Issue Title: FIU UP:LIFT (University Paradigm:
 Learn, Interact, Facilitate,
 Transform)

	<u>RECURRING</u>	<u>NON- RECURRING</u>	<u>TOTAL</u>
<u>Positions</u>			
Faculty	10.00	0.00	10.00
Other (A&P/USPS)	9.00	0.00	9.00
	-----	-----	-----
Total	19.00	0.00	19.00
	=====	=====	=====
<u>Salary Rate (for all positions noted above)</u>			
Faculty	\$1,200,000	\$0	\$1,200,000
Other (A&P/USPS)	\$620,000	\$0	\$620,000
	-----	-----	-----
Total	\$1,820,000	\$0	\$1,820,000
	=====	=====	=====
Salaries and Benefits	\$2,415,504	\$0	\$2,415,504
Other Personal Services	\$1,579,810	\$0	\$1,579,810
Expenses	\$200,000	\$0	\$200,000
Operating Capital Outlay	\$0	\$800,000	\$800,000
Electronic Data Processing	\$0	\$0	\$0
Special Category (Specific)	\$0	\$0	\$0
	\$0	\$0	\$0
	\$0	\$0	\$0
	\$0	\$0	\$0
	-----	-----	-----
Total All Categories	\$4,195,314	\$800,000	\$4,995,314
	=====	=====	=====

2017-2018 Legislative Budget Request
Education and General
Position and Fiscal Summary
Operating Budget Form II
(to be completed for each issue)

University: Florida International University
Issue Title: FIU StartUP

	<u>RECURRING</u>	<u>NON- RECURRING</u>	<u>TOTAL</u>
<u>Positions</u>			
Faculty	3.00	0.00	3.00
Other (A&P/USPS)	20.00	0.00	20.00
	-----	-----	-----
Total	23.00	0.00	23.00
	=====	=====	=====
<u>Salary Rate (for all positions noted above)</u>			
Faculty	\$500,000	\$0	\$500,000
Other (A&P/USPS)	\$1,600,000	\$0	\$1,600,000
	-----	-----	-----
Total	\$2,100,000	\$0	\$2,100,000
	=====	=====	=====
Salaries and Benefits	\$2,787,120	\$0	\$2,787,120
Other Personal Services	\$0	\$0	\$0
Expenses	\$1,860,000	\$0	\$1,860,000
Operating Capital Outlay	\$0	\$855,000	\$855,000
Electronic Data Processing	\$0	\$0	\$0
Special Category (Software)	\$100,000	\$0	\$100,000
Technical Equipment	\$0	\$500,000	\$500,000
	\$0	\$0	\$0
	\$0	\$0	\$0
	-----	-----	-----
Total All Categories	\$4,747,120	\$1,355,000	\$6,102,120
	=====	=====	=====

2017-2018 Legislative Budget Request
Education and General
Position and Fiscal Summary
Operating Budget Form II
(to be completed for each issue)

University: Florida International University
Issue Title: FIU StartUP

	<u>RECURRING</u>	<u>NON- RECURRING</u>	<u>TOTAL</u>
<u>Positions</u>			
Faculty	3.00	0.00	3.00
Other (A&P/USPS)	20.00	0.00	20.00
	-----	-----	-----
Total	23.00	0.00	23.00
	=====	=====	=====
<u>Salary Rate (for all positions noted above)</u>			
Faculty	\$500,000	\$0	\$500,000
Other (A&P/USPS)	\$1,600,000	\$0	\$1,600,000
	-----	-----	-----
Total	\$2,100,000	\$0	\$2,100,000
	=====	=====	=====
Salaries and Benefits	\$2,787,120	\$0	\$2,787,120
Other Personal Services	\$0	\$0	\$0
Expenses	\$1,860,000	\$0	\$1,860,000
Operating Capital Outlay	\$0	\$855,000	\$855,000
Electronic Data Processing	\$0	\$0	\$0
Special Category (Software)	\$100,000	\$0	\$100,000
Technical Equipment	\$0	\$500,000	\$500,000
	\$0	\$0	\$0
	\$0	\$0	\$0
	-----	-----	-----
Total All Categories	\$4,747,120	\$1,355,000	\$6,102,120
	=====	=====	=====

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For system-wide issues, consideration will be given to issues that allow for greater efficiencies through shared system resources or identified as a system-wide need. If requesting funds as such, please list all university participants of the initiative and check the box "Shared Services/System-Wide Issue".

For new issues identified by a university as a priority issue for 2017-2018, please check the box "New Issue for 2017-2018".

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**State University System
Education and General
2017-2018 Legislative Budget Request
Form I**

University(s):	University of Central Florida
Issue Title:	Population Health Sciences Research Collaborative
Priority Number	
Recurring Funds Requested:	\$2,000,000
Non-Recurring Funds Requested:	
Total Funds Requested:	\$2,000,000
Please check the issue type below:	
Shared Services/System-Wide Issue for Fiscal Year 2017-2018	X (in collaboration with FIU)
New Issue for Fiscal Year 2017-2018	X

I. Description - 1. Describe the service or program to be provided and how this issue aligns with the goals and objectives of the strategic priorities and the 2016 Work Plan established by your institution (include whether this is a new or expanded service/program). If expanded, what has been accomplished with the current service/program? 2. Describe any projected impact on academic programs, student enrollments, and student services.

The Colleges of Medicine at UCF and FIU are submitting these Legislative Budget Requests, in close collaboration, to support an integrated Population Health Sciences Research Collaborative. The two programs will work across diverse urban communities, both separately and in joint projects, to:

- implement and assess clinical interventions and practice improvements in community health and health care, using actionable health care data and analytics
- share and implement, through community partners, standardized approaches and interventions in clinical care, care coordination, practice operations, and community-based health improvements including addressing social determinants of health
- develop projects utilizing a variety of data-driven, patient-centered programs in diverse populations
- share resulting data on outcomes and best practices
- disseminate results through publications, educational programs, and sharing of best practices
- partner in multidisciplinary grant-funded projects focused on the individual and common needs of the diverse communities they each support

Each medical school will recruit population health faculty and supporting personnel who participate in this research collaborative. The medical schools will share investment in technology and data resources needed to support population health research.

The Herbert Wertheim College of Medicine at FIU is an ideal partner for UCF in establishing a population health sciences collaborative. FIU has focused its medical school curriculum and partnerships on training students to work in interdisciplinary teams serving patients and improving health in a community setting. FIU's innovative Neighborhood HELP program is a leader in population health education and service and provides excellent opportunities for research in population health. The two medical schools were founded together in 2006 and have built very complimentary program strengths and resources in population health.

1. UCF's Population Health Sciences Research Program

Background

Population health sciences research is critical to the success of emerging health care delivery and payment models being implemented in Florida and nationally and to improving individual and community health. The urban and suburban areas of both greater Orlando and greater Miami include a variety of populations with diverse health issues. These environments and populations present a broad array of health-related needs and research opportunities, which enable piloting and evaluating interventions, and developing best practices for improving community health and health care.

Rapidly increasing use and availability of electronic health data make it increasingly possible to measure and analyze the effectiveness, quality, and cost of health care services and other interventions to improve community health. Although new "apps" and commercial uses of technology abound in health care, medical schools have a critical role and responsibility in objectively evaluating new interventions and in teaching evidence-based practices that are demonstrated to measurably improve patient care and health. The UCF College of Medicine is expanding its faculty resources in emerging areas of research in population health sciences/public health, including clinical outcomes, preventive health and wellness, and use of health data and analytics to measure outcomes and effectiveness of interventions. UCF medical students and residents need to receive training in emerging models of care and in population health sciences/public health as part of their medical education.

Population health sciences emphasizes the "triple aim" of improving patient care, improving health and wellness of the population, and reducing the per capita cost of health care. This requires leveraging health information technology and actionable health data, outcomes studies, learning health communities (as defined by the Institute of Medicine), patient engagement, predictive analytics and modeling, population health management, preventive care and community health interventions, and redesign of our health care delivery and payment systems to "transform" health care.

Medical schools established in this era of transformational change are especially well-situated to build and evaluate innovative clinical programs and care models and to educate future clinicians in these newer practices, less constrained by established traditional approaches and infrastructure.

Alignment with UCF Strategic Plan

The UCF College of Medicine identified population health sciences in its Strategic Plan for 2015-2020 as a key area for multidisciplinary research and development and growth of programs across its educational, clinical, and community service missions.

Additionally, population health sciences research is very strongly aligned with the university's newly developed *UCF Collective Impact: Strategic Plan*. Through population health sciences research and dissemination of results, the University of Central Florida can serve our communities and “deploy our distinctive assets to solve society's greatest challenges” and “create partnerships at every level that amplify our academic, economic, social, and cultural impact and reputation.” UCF has identified several five- and twenty-year objectives to measure transformational impact. These include doubling research awards and generating economic, social, and cultural impact – both of which may be partially attained through the expansion and formalization of a population health sciences research program. More specifically, UCF has identified a specific goal to “deploy our distinctive assets” with the launch of at least one major regional initiative that achieves measurable improvement in a significant community challenge. The Population Health Sciences Research Collaborative initiative would support this goal.

UCF is the partnership university. The value of UCF's population health sciences research and activities is multiplied exponentially through its current and future partnerships. This includes ongoing collaborations with the Florida International University (FIU) College of Medicine, with whom UCF has partnered on grant applications and strategic planning for population health sciences and community health. Additionally, the college currently works closely with the Florida Department of Health, county health departments, federally qualified health centers, and other health care organizations and public and private partners on education and interventions to address health care disparities, improve outcomes, optimize health care operations, and implement health information technologies.

UCF College of Medicine's Population Health Investments, Expertise, and Partnerships

From its inception, the UCF College of Medicine has had a focus on population health and community outreach. For example, the college's medical students and faculty partnered with an area patient-centered medical home that cares for uninsured patients, Grace Medical Home, to establish the student-run KNIGHTS clinic. This enables interdisciplinary teams of medical, nursing, social work, and pharmacy students to learn to care for patients in a medical home model. The college also initiated a global health program which includes visits by interdisciplinary teams of UCF faculty and students from medicine, nursing, social work, and other disciplines to deliver healthcare in communities in the Dominican Republic and other areas in need. Additionally, College of Medicine faculty and students lead programs addressing health disparities and bring health education and services to underserved communities in Florida through health fairs and clinics.

Recognizing the central role of health information technology in health care transformation, the College of Medicine established a multidisciplinary team that has assisted over 2800 community providers in implementing electronic health records and learning to use digital health information to improve patient care. The college's Regional Extension Center for Health IT (now “HealthARCH – Advancing Resources to Change Healthcare”) was established with federal funds and now provides affordable support enabling community physicians to become patient centered medical homes, use health analytics, and transition to new models of value-based care. This informal network of community physicians looks to the UCF College of Medicine for

education and assistance in practice operations and implementing evidence-based best practices in operations and patient care.

UCF College of Medicine experts are currently conducting research on infectious diseases including acute viral and bacterial diseases and emerging pathogens that have potential for epidemic impact on the dense urban communities in Central and South Florida. Population health sciences research is particularly well suited for research topics involving issues in infectious disease and vaccines, both of which have profound implications for public health in the state of Florida. Central and South Florida present two different and unique tourism-based transient workforces, coupled with two intermixed but very diverse ethnic and socio-economic populations. Both communities would benefit from management of infectious diseases agents and pathogens, including, for example, acute seasonal infections such as influenza virus and bacterial pneumonia, insect-borne pathogens such as the Zika virus and Chikungunya virus, and persistent infections such as tuberculosis and the hepatitis C virus. The FIU/UCF population health research collaborative presents a unique opportunity to address a number of important research questions across two very diverse areas of the state

By recruiting experienced population health sciences researchers to identify and validate effective practices in different aspects of health and health care, as well as experts on health data and analytics, the college can continue to build resources that educate future health care providers while measurably improving health and health care in our community.

Proposed use of requested funds will include implementation of population health sciences projects such as the following:

- Recruitment of experienced M.D. and Ph.D. research faculty and supporting personnel in multiple aspects of population health sciences including but not limited to: researchers in epidemiology; health outcomes; particular health interventions such as vaccines, nutrition and wellness programs; health data and analytics including predictive analytics and modeling; health care delivery science including value-based payment, care coordination, and disease management; health disparities and health equity; and social determinants of health.
- Collaboration with FIU to create multidisciplinary team-based research projects designed to define and validate interventions that measurably improve health and health care for our communities. Together, UCF and FIU will establish and evaluate standardized approaches and interventions in clinical care, care coordination, and community-based health improvement. Interventions will be targeted, for example, to improve health education, reduce unnecessary utilization of hospital services and duplication of medical tests, improve management of chronic conditions, and improve patient engagement and adherence to recommended healthy behaviors.
- Research impact of community health interventions such as management of infectious disease agents and utilization of vaccines to improve the health of varied populations. This includes prevention of disease and avoidance or management of epidemics, identifying influence of factors such as diversity of ethnic and socio-economic characteristics, disparate access to health care, and application of vaccine-based care delivery in a transient tourism based workforce.
- Establishment of unique training opportunities for the next generation of healthcare providers and infectious disease specialists. This could include M.D. and Ph.D. faculty, postdoctoral fellows, junior faculty, residents and fellows, and faculty and students from nursing, social work, health informatics, and related disciplines.

- Shared investment with FIU in technology, data, and other resources and tools in support of population health sciences research, education, and services.

II. Return on Investment - *Describe the outcome(s) anticipated, dashboard indicator(s) to be improved, or return on investment. Be specific. For example, if this issue focuses on improving retention rates, indicate the current retention rate and the expected increase in the retention rate. Similarly, if it focuses on expanding access to academic programs or student services, indicate the current and expected outcomes.*

Anticipated outcomes include:

- Identifying health improvement interventions that measurably improve healthcare operations and patient outcome, and reduce cost.
- Translating these discoveries into actionable recommendations and best practices.
- Incorporating findings into the curriculum of medical, nursing, and other health sciences programs; clinical care; and community health improvements.
- Measurably reducing preventable utilization of hospital services.
- Complimenting existing UCF expertise in the area of population health with the addition of faculty members and professional personnel who will also work with community, state-wide, and national partners on broader projects across larger populations.
- Contributing to the health of Floridians in general – improving patient care, improving health and wellness of the population, and reducing the per capita cost of health care.
- Return on investment from specific population health projects will include measureable improvements in patient care interventions and health outcomes as well as efficiencies and costs savings in health care delivery. For example, work by the UCF Regional Extension Center (now HealthARCH) with a network of independent physicians (an Accountable Care Organization) in Central Florida has enabled the practices to implement improvements in patient care and practice operations resulting in measureable improvements in preventive services, process improvements, utilization, and patient experience. For example, in that patient population there was a 6-26% increase seen in various preventive services, a 40% increase in breast cancer screening, a 54% reduction in hospital admissions, an 81% increase in same day response to telephone calls received from patients, and a 95% increase in same day access to patient care. Further research is needed to validate these findings and assess the impact of many other potential interventions in order to define, disseminate, and teach best practices in population health.
- Bringing in Federal grant funds; substantial federal and private grants are available for qualified interdisciplinary population health research teams that evaluate new models, identify and disseminate evidence-based best practices, and validate changing health care delivery and payment practices.
- Bringing jobs to Florida. Population health faculty, supported by other skilled positions such as statisticians, epidemiologists, and other support positions such as graduate students, postdoctoral researchers, and field staff will be hired. These highly skilled professional positions will help bring higher paying jobs to Florida.
- Expanding our partnerships. As noted above, the UCF College of Medicine has established a partnership with the FIU College of Medicine, the Population Health Sciences Research Collaborative, and the two universities are submitting these

Legislative Budget Requests in collaboration and in support of that partnership. This and other partnerships leverage each investment for the further betterment of all.

- Bringing high visibility to UCF, FIU, and the communities they serve and models for improving health.

III. Facilities (If this issue requires an expansion or construction of a facility, please complete the following table.):

	Facility Project Title	Fiscal Year	Amount Requested	Priority Number
1.	None required			
2.				

**State University System
Florida Board of Governors
2017-2018 Legislative Budget Request Instructions
Forms I and II**

The main objective of Form I and Form II is to align the university's budget issues and dollar values with the goals and objectives of the strategic priorities and the 2016 University Work Plan established by each university.

For FY 2017-2018, each university should submit one Form I and Form II for each budget issue and any system-wide issue identified as a critical system-wide need. Any issues unique to a branch campus or a special unit (e.g., IFAS Workload Initiative) should not be rolled into the main campus request, but reflected separately by use of the forms provided.

For system-wide issues, consideration will be given to issues that allow for greater efficiencies through shared system resources or identified as a system-wide need. If requesting funds as such, please list all university participants of the initiative and check the box "Shared Services/System-Wide Issue".

For new issues identified by a university as a priority issue for 2017-2018, please check the box "New Issue for 2017-2018".

Please keep in mind that all issues submitted for consideration by the Board should align with the goals and objectives of the strategic priorities and work plan established by each university.

**State University System
Education and General
2017-2018 Legislative Budget Request
Form I**

University(s):	Florida International University
Issue Title:	Royal Caribbean Cruise Lines Hazardous Substance Mitigation
Priority Number	
Recurring Funds Requested:	\$ 0
Non-Recurring Funds Requested:	\$2,500,000
Total Funds Requested:	\$2,500,000
Please check the issue type below:	
Shared Services/System-Wide Issue for Fiscal Year 2017-2018	<input type="checkbox"/>
New Issue for Fiscal Year 2017-2018	<input checked="" type="checkbox"/>

- I. Description** - 1. Describe the service or program to be provided and how this issue aligns with the goals and objectives of the strategic priorities and the 2016 Work Plan established by your institution (include whether this is a new or expanded service/program). If expanded, what has been accomplished with the current service/program? 2. Describe any projected impact on academic programs, student enrollments, and student services.

In 2013, FIU entered into an innovative partnership with Royal Caribbean Cruise Lines after undergoing a competitive solicitation. This partnership provides multiple benefits to FIU students and faculty, including:

- 20 paid student internships annually
- Programmatic access to a \$30 million, 130,000 square foot state-of-the-art performance, production and rehearsal facility and technical equipment at our BBC campus, including back-of-the-house operations and participation in training programs
- Customization of FIU program curricula in the Colleges of Architecture and the Arts, Hospitality and Tourism Management, Journalism and Mass Communication, and Business
- Job fairs and career placement opportunities for students

- Student engagement and interaction with performers and artists
- Access to RCL proprietary business and research data for use by FIU students and faculty in the development and analysis of entertainment programs, market trends, consumer behavior and market research
- Guest lectures, technique workshops, and masters classes for students and faculty
- RCL senior leadership participation on college advisory boards

As part of the partnership, RCL repurposed existing obsolete student housing at BBC that was scheduled for demolition for performer housing. The existing housing had over \$12 million in code and building deficiencies along with \$2.5 million in required amenity improvements. The repurposing required an investment of approximately \$7 million by RCL and saved FIU over \$2 million in demolition costs. Because of the current condition of the BBC housing, FIU agreed to use commercially reasonable efforts to seek and obtain the necessary funding from the Florida Legislature to pay for the cost of any legally required remediation of hazardous substances or materials and/or the cure of any applicable laws as part of the housing license agreement with RCL.

II. Return on Investment - *Describe the outcome(s) anticipated, dashboard indicator(s) to be improved, or return on investment. Be specific. For example, if this issue focuses on improving retention rates, indicate the current retention rate and the expected increase in the retention rate. Similarly, if it focuses on expanding access to academic programs or student services, indicate the current and expected outcomes.*

As mentioned above, the RCL partnership provides FIU with strong academic and career opportunities that directly benefit our students. As part of their educational training, FIU students have access to state-of-the-art facilities and equipment, including rehearsal space, aerial studios, a 300-seat theatre, costume shops, and vocal practice, audio recording and video rooms. This is the largest performance, production and rehearsal facility in the United States and perhaps the world. FIU would never be able to afford such facilities and the value they bring to the academic programs offered to our students.

Additionally, the internships, interactions with world-class performers, artists, and executive leadership provide exceptional student opportunities such that they are more prepared academically and programmatically and ready to enter the job market immediately

upon graduation. Not only will our students get quality jobs in the arts, business, hospitality management, and journalism, their collegiate experiences through this partnership will lead to higher entry salaries as they will have achieved real-world professional training while completing their degrees.

Finally, we believe that this partnership enables FIU to attract high performing students and that the interactive curriculum with RCL will encourage students to graduate more quickly as they can observe firsthand the job opportunities. Certainly, the innovative and unique opportunities will encourage students to perform at their highest levels and graduate more quickly. From the very beginning, the RCL partnership was designed to improve student success – improve retention and graduation as well as post- graduation employment at higher salaries – in order to improve the economic development of our region.

III. Facilities *(If this issue requires an expansion or construction of a facility, please complete the following table.):*

	Facility Project Title	Fiscal Year	Amount Requested	Priority Number
1.	N/A			
2.				

2017-2018 Legislative Budget Request
Education and General
Position and Fiscal Summary
Operating Budget Form II
(to be completed for each issue)

University: Florida International University
Issue Title: Royal Caribbean Cruise Lines
Hazardous Substance
Mitigation

	RECURRING	NON- RECURRING	TOTAL
<u>Positions</u>			
Faculty	0.00	0.00	0.00
Other (A&P/USPS)	0.00	0.00	0.00
	-----	-----	-----
Total	0.00	0.00	0.00
	=====	=====	=====
<u>Salary Rate (for all positions noted above)</u>			
Faculty	\$0	\$0	\$0
Other (A&P/USPS)	\$0	\$0	\$0
	-----	-----	-----
Total	\$0	\$0	\$0
	=====	=====	=====
Salaries and Benefits	\$0	\$0	\$0
Other Personal Services	\$0	\$0	\$0
Expenses	\$0	\$2,500,000	\$2,500,000
Operating Capital Outlay	\$0	\$0	\$0
Electronic Data Processing	\$0	\$0	\$0
Special Category (Specific)	\$0	\$0	\$0
_____	\$0	\$0	\$0
_____	\$0	\$0	\$0
_____	\$0	\$0	\$0
	-----	-----	-----
Total All Categories	\$0	\$2,500,000	\$2,500,000
	=====	=====	=====