

**State University System  
Education and General  
2016-2017 Legislative Operating Budget Issue  
Form I**

<b>University(s):</b>	<b>All SUS &amp; FCS - System-wide</b>
<b>Work Plan Issue Title:</b>	<b>Providing Increased STEM Resources for Undergraduate and Graduate Students through the Expansion of STEM Electronic Resources</b>
<b>Priority Number</b>	
<b>Recurring Funds Requested:</b>	
• Complete Florida Plus Program (for SUS & FCS Undergraduate Resources)	\$2,935,302
• Board of Governors (for SUS Graduate Resources)	\$1,870,000
<b>Non-Recurring Funds Requested:</b>	
<b>Total Funds Requested:</b>	<b>\$4,805,302</b>
<b>Please check the issue type below:</b>	
Shared Services/System-Wide Issue	<input checked="" type="checkbox"/>
2015-2016 Non-Recurring Issue	<input type="checkbox"/>
New Issue for 2016-2017	<input checked="" type="checkbox"/>

**I. Description**

This request addresses the need for a more robust set of STEM (Science, Technology, Engineering, and Mathematics) electronic resources and high quality educational videos and multimedia resources to be made available to all students in the public college and university systems in Florida through the **Complete Florida Plus Program (CFPP)**. The electronic resources to be acquired are of particular value to undergraduate students, although they will be available to all SUS and FCS students and faculty.

This request also addresses the need for a more comprehensive set of STEM (Science, Technology, Engineering, and Mathematics) electronic resources to be

made available to all students in the public university system in Florida through the **State University System (SUS)**. The electronic resources to be acquired are of particular value to graduate and professional students, although they will be available to all SUS students and faculty, and to FCS students and faculty when they are on university campuses.

**Complete Florida Plus Program (CFPP) Request: \$2,935,302**

It is imperative that Florida improve the recruitment, retention and graduation of undergraduate students in the STEM fields. The State of Florida has recognized the need to address the growing deficiency in science and mathematics education, in F.S. 1001.03 (17), which calls for a “Unified State Plan for Science, Technology, Engineering, and Mathematics (STEM).” The Complete Florida Plus Program (CFPP), successor to the Florida Virtual Campus (FLVC), is legislatively required to license e-resources for the public postsecondary libraries in the Florida college and university systems. CFPP requests new funds to acquire a more robust portfolio of common STEM e-resources for college and university libraries primarily to support undergraduate students enrolled in the public college and university systems in Florida.

While the current statewide allocation to FLVC for the purchase of electronic resources for the State University System (SUS) and the Florida College System (FCS) does allow for a number of interdisciplinary and subject-specific resources, it does not provide for a consistent level of access to STEM resources available to undergraduate students enrolled in state universities and colleges in Florida. STEM resources can be expensive. For example, FLVC currently licenses ProQuest’s SciTech Collection for the SUS, which costs \$310,000 annually. It is estimated that extending access to this database alone for the FCS would double that figure. The balance of the requested funding would be required to ensure statewide access to databases such as Gale’s Science in Context, APA’s PsycInfo, and ACM’s Digital Library for computer science. This additional funding is necessary in order to create a central collection of fundamental STEM full-text electronic resources to support undergraduate students in the SUS and FCS.

**Total funding requested for STEM e-resources for undergraduate students is \$1,050,000.**

This request also includes the needs of the 12<sup>th</sup> university, Florida Polytechnic University, to the SUS. Florida Poly greatly increases the need to provide access to the most current and up-to-date STEM resources, which will increase the cost to the system. For example, it requires an additional \$40,000 annually to provide Florida Poly access to Compendex and Inspec. While FLVC successfully limited the costs of providing access to e-resources for Florida Poly in 2014 by negotiating free trial access, these costs rose in 2015 and are expected to rise again in 2016 as vendors expect payments on behalf of Florida Poly to complete the transition to the full licensing cost. It is anticipated that the costs to include Florida Poly in the existing e-resources that FLVC provides to the SUS are \$250,000 recurring. **Total funding requested for e-resources to support students at Florida Poly is \$250,000.**

Additionally, the majority of Florida undergraduate students do not have access to the high quality educational videos and multimedia resources that are so critical in the online educational environment. Funding for a collection of multimedia resources that broadly support the core undergraduate curriculum would support the educational mission of the state. FLVC currently offers the Films On Demand Master Academic Collection for the FCS; extending that license to include the SUS would cost an additional \$200,000. Additional essential multimedia resources are produced by Alexander Street Press, with subject coverage ranging from STEM and Health Sciences to the Arts and Humanities. These resources would be incorporated into local institutional learning management systems, course management systems, and alternate textbook programs, reducing the overall cost of course materials to students. **Total funding requested for video and multimedia resources is \$950,000.**

Finally, the base funding for electronic resources provided through CFPP and its predecessor organizations (FLVC, FCLA and CCLA) has not been increased for over five years. Price increase for these important electronic resources erode the ability to maintain the materials that are currently offered to students enrolled in the public college and university systems in Florida. An increase of 10% to the existing base funding for electronic resources would restore some of the lost purchasing power and avoid further reductions in content at a time when we are trying to expand resources for students. **Total funding requested to maintain funding for current e-resources is \$685,302.**

This additional statewide funding for e-resources acquired centrally by CFPP on behalf of the state universities and colleges would ensure consistent access to resources critical to support programs for undergraduate students.

### **Board of Governors Request for the State University System (SUS): 1,870,000**

The State University System (SUS) has successfully and jointly collaborated in the licensing of electronic journals (e-journals) for many years. This collaboration has been one of the strengths of the SUS library system and has provided SUS students and faculty with essential resources needed to do academic research and study, primarily in the STEM disciplines. Through collaborative licensing, students across the SUS can access e-journals that would normally be too expensive for each university to purchase on its own. This request complements, but does not duplicate, the request for the Complete Florida Plus Program included above.

E-journals are scholarly materials that can be accessed via the internet. They are formatted similarly to articles in traditional printed journals, but in electronic form, the articles contain imbedded metadata that can link to related materials and also allow a researcher to mine the data in novel ways to support the research that is underway. Less than 20% of these scholarly resources are free of copyright and available without a license or subscription fee. Most of this essential information is copyrighted and the state universities, through their libraries, license the content in order to provide access to students and faculty.

Each university has contributed an amount towards the license of e-journals, with the total contribution exceeding \$15.8 million in 2013-2014 and continues to increase annually. However, the current funding distribution is highly inequitable across the institutions and these funds will be used, in part, to address these conditions, and in part to acquire additional high-value content not currently available to support SUS graduate and professional students. The electronic resources to be acquired are of particular value to graduate and professional students in the STEM disciplines, although the information will be available to all SUS students and faculty and to FCS students and faculty when they are on university campuses.

It is well-known that STEM education is a high-cost, but necessary, investment and these e-journals are essential to support graduate-level STEM education and research in the state universities. However, the cost of e-journals has been increasing at the rate of 5% to 10% annually, far outpacing inflation and the library materials budgets of the state university libraries. This problem is not unique to the state of Florida. It is occurring all over the United States and is attributable to the fact that a small number of publishers have effectively achieved monopoly-like control over the majority of essential scholarly publications, particularly in STEM disciplines. Elsevier, Springer and Wiley are examples of publishers who control access to these high-cost, high-value STEM subscriptions that are essential for graduate study and research in the State University System.

The federal government recognizes the problem and is seeking to address it by requiring that published results of federally funded research be made available without charge within 12 months of initial publication. However, this change is three to five years away from implementation, and in the interim, the university faculty and students must have access to those e-journals if the State is to maintain and improve its STEM goals. Furthermore, the planned 12 month delay in release of the information is too long to allow the universities to cancel e-journal licenses and still adequately support timely access to current research and scholarship.

While universities have attempted to reduce costs during the economic downturn, the rising costs for these essential resources are becoming problematic. Enrollment and research funding has been increasing at the 11 universities, and with the additional of a new university, Florida Polytech, an investment of \$5.6 million over a 3-year period, would aid all of the universities in providing the academic materials that are important to provide for and achieve academic excellence. These journals are critical to the STEM education, research, and technology transfer efforts that are so important to students, faculty, and our industrial partners. The requested amount of \$1.87 million increase in recurring funds per year would be administered by the Board of Governors and allocated in an equitable manner among the institutions.

The resources requested for the SUS are in addition to and separate from those licensed by the Complete Florida Plus Program on behalf of the SUS and FCS. It

addresses the unique e-journal collections that support the STEM graduate education and research enterprise in the SUS. These e- journal collections are critical to those efforts and, of course, will impact tech transfer and economic development in future years.

**II. Return on Investment**

Florida’s public post-secondary institutions are striving to graduate students with baccalaureate, masters, doctoral and professional degrees who are well prepared for the knowledge economy and who will work effectively, not only in Florida, but in the global marketplace. CFPP (on behalf of the SUS and FCS) and the State University System license electronic resources that are essential to support this investment in student success.

To meet the dynamic BOG Strategic Plan goal of 22,500 STEM undergraduates system-wide by 2025, the acquisition and enhancement of STEM and multi-media resources by CFPP on behalf of the SUS and FCS is imperative. Providing this critical support for access to resources for undergraduate students will facilitate increased knowledge, encourage retention, and reduce time to graduation, especially in the key STEM fields.

Similarly, the state universities are striving to improve efficiency in operations and to reduce costs to the state and students while continuing to provide a high-value educational experience. This funding for the licensing of STEM e-journals for graduate and professional education and research meets goals that have been articulated by the Board of Governors, the Governor, and the Legislature to reduce duplication, create alternative funding strategies thru entrepreneurial enterprises, and to improve the quality, value, and cost of the educational experience for students.

**III. Facilities:**

	<b>Facility Project Title</b>	<b>Fiscal Year</b>	<b>Amount Requested</b>	<b>Priority Number</b>
<b>1.</b>	NA			
<b>2.</b>				