



Educational Programs Committee Meeting

Aug 12, 2020 2:00 PM - 3:30 PM EDT

Table of Contents

| | |
|--|----|
| I. Agenda..... | 2 |
| II. Minutes of the June 17, 2020 meeting..... | 4 |
| III. Reports..... | 8 |
| A. Discussion Inspirational Spotlight..... | 8 |
| B. Discussion Provost Update..... | 8 |
| C. INFO-1 FY21 Educational Programs Committee Annual Plan..... | 8 |
| IV. New Business..... | 12 |
| A. EPC-1 2020 SUS Textbook and Instructional Material Affordability Annual Report.... | 12 |
| B. EPC-2 Potential Establishment of UCF Geospace Research Program..... | 22 |
| C. INFO-2 Academic Program Development Process..... | 39 |
| D. Discussion Emerging Issue: Develop a Work Plan for Faculty Mix and Student-Faculty Ratio Exploration..... | 44 |



UNIVERSITY OF CENTRAL FLORIDA

**Board of Trustees
Educational Programs Committee
Virtual Meeting
August 12, 2020, 2:00-3:30 p.m.
(Or Upon Adjournment of previous meeting)**

Livestream:

<https://ucf.webex.com/ucf/onstage/g.php?MTID=e37caf896f11f0a652de3d842eca9db4b>

Conference call number: 1-408-418-93882, access code: 132 703 2351#

AGENDA

- | | |
|---|--|
| 1. Call to order | Kenneth Bradley, <i>Chair, Educational Programs Committee</i> |
| 2. Roll Call | Gwen Ransom, <i>Executive Assistant Office of the Provost</i> |
| 3. Minutes of the June 17, 2020 meeting | Chair Bradley |
| 4. Reports | Chair Bradley |
| Discussion | Inspiring Academic Spotlight <i>Caryl McAlpin, Vice Chair, Educational Program Committee</i> |
| Discussion | Provost Update <i>Michael Johnson, Interim Provost and Vice President for Academic Affairs</i> |
| INFO-1 | FY21 Educational Programs Committee Annual Plan <i>Chair Bradley</i> |
| 5. New Business | Chair Bradley |
| EPC-1 | 2020 SUS Textbook and Instructional Material Affordability Annual Report <i>Theodorea Regina Berry Melody Bowdon Associate Vice Provost, Student Learning and Academic Success Associate Dean, College of Undergraduate Studies</i> |

| | |
|----------------|---|
| EPC-2 | Potential establishment of UCF Geospace Research Program <i>Elizabeth Klonoff, Vice President for Research Dean, College of Graduate Studies</i> |
| INFO-2 | Academic Program Development Process <i>Timothy Letzring, Senior Associate Provost for Academic Affairs</i> |
| Discussion | Emerging Issue: Develop a Work Plan for Faculty Mix and Student-Faculty Ratio Exploration <i>Michael Johnson</i> |
| 6. Adjournment | Chair Bradley |



UNIVERSITY OF CENTRAL FLORIDA

**Board of Trustees
Educational Programs Committee
June 17, 2020
FAIRWINDS Alumni Center - Virtual Meeting
MINUTES**

CALL TO ORDER

Trustee Kenneth Bradley, chair of the Educational Programs Committee, called the meeting to order at 2:00 p.m. Committee members Vice-Chair Caryl McAlpin, Trustee Joseph Harrington, and Trustee Sabrina La Rosa were present. Trustee David Walsh was also in attendance.

Chair Bradley welcomed and introduced two new committee members, Trustee Joe Harrington, president of UCF Faculty Senate and Trustee Sabrina La Rosa, president of UCF Student Government.

MEETING MINUTES

April 9, 2020, meeting minutes submitted for approval, motion to approve was made by Vice-Chair McAlpin, and Trustee La Rosa seconded. The committee unanimously approved the minutes as amended.

Administrative adjustment to April 9, 2020 minutes:

Refer to 'Provost Update' third paragraph 'A+ thorough C' is revised to read 'A through C.'

Reflection

Dr. Paige Borden, Associate Provost and Chief Analytics Officer, reflected on past teachers that have influenced and provided inspiration to her life and career.

REPORTS

Provost Update

Acting Provost Jana Jasinski provided the provost update, beginning with the COVID-19 pandemic.

Dr. Jasinski expressed gratitude to faculty, students, and staff for their extraordinary efforts to quickly and effectively transition to remote instruction, even amid tremendous stress that involved personal health, family care, household supplies, food, and much more.

Jasinski highlighted the ability of faculty to adapt academically to the pandemic's challenges, and their resiliency and resourcefulness, giving them optimism as UCF thoughtfully plan for a fall return to campus instruction. She went on to outline lessons learned during remote instruction and information on plans for fall.

- Student Course Outcome Comparisons for spring 2019 with spring 2020: A key takeaway from these indicators is that our Knights student body didn't fall apart under the COVID-19 pressures, students completed courses. The vast majority persevered in staying the course in pursuit of their dreams. Overall, our students weathered overwhelming circumstances quite well. Despite severe disruptions and the abrupt change to remote learning, there was an increase in the percentage of students with passing grades and only a slight increase in the number of students who withdrew from the university.
- Undergraduate students' successful completion of credit hours was up slightly, with improvements in average GPA and academic standing. There was an increase in the number of undergraduate students removed from probation and a decrease in the number of students that experienced by an adverse academic standing action.

- These results were influenced by the Satisfactory/Unsatisfactory grading option that UCF offered students to help them through this difficult time. Courses with “satisfactory” or “unsatisfactory” grading systems have been part of the university’s curricula for many years. The unique COVID-19 option meant that students selected S/U grading and on a larger scale. That option resulted in a 9-percentage point increase in S/U grades this spring.
- A student perception survey administered at the end of every semester indicated an increase in popularity for all fully converted modes of instruction delivery. Based on other surveys conducted by the Division of Digital Learning at the end of the semester saw student stressors as the biggest challenge to our faculty.

Dr. Jasinski continued with information regarding a fall return to campus and factors that would increase the student’s comfort level.

- Referenced items include vaccines, COVID-19 case rates, facemask requirements, social distancing, building sanitation and, a clean campus.
- UCF submitted a draft plan on an approach to return to campus instruction for fall. An overview of the plan will be presented at the Board of Trustees meeting on June 18, 2020
- This plan prioritizes the health and well-being of faculty, students, and staff, with contingency planning for unknowns and a change of direction. Social distancing determinations and classroom capacity are also considerations, and facial coverings are a requirement.
- Colleges are finishing steps to determine which courses will be on campus and those that can move to fully remote, developing alternative safety measures, including full PPE for clinical courses that require close contact with human subjects. Information for students will be available by July 1, 2020.
- Classrooms will be deep cleaned daily in line with CDC and other recommendations.
- There will be flexible options for students to continue course instruction if becoming ill or placed into quarantine, accompanied by faculty plans to switch to fully remote instruction based on needs.
- Plans include a transition to remote instruction for the last week of classes and final exams after the Thanksgiving holiday in accordance with a resurgence of COVID-19 in late fall.

Jasinski explained that planning continues, thanked the UCF community for their willingness to remain flexible in the months ahead.

In closing, Acting Provost Jasinski strongly condemned inflammatory racial views on social media by Dr. Charles Nagy, a UCF professor, making clear that his comments are counter to the university’s core values of diversity and inclusion.

Trustee Joseph Harrington was recognized and commended the president, provost, administration, and faculty for swift and transparent action. Trustee Harrington commented that Faculty Senate is proud of the transparency and ability to contribute to the plans. He views this as the best plan that UCF can have at this point.

Trustee David Walsh was recognized and inquired about the percentage or number of face-to-face sessions with fewer than 100 undergraduates. He went on to explain that the reason for the question is transparency and openness. He also asked about notification and opportunity for students to adjust their plans once the university plan is approved.

Questions posed by Trustee Walsh were answered by the academic affairs staff, indicating that there would be enough time for students to make changes. Chair Bradley also suggested that additional supporting material be available during the Board of Trustees meeting on June 18, 2020.

Trustee Sabrina La Rosa was recognized to discuss a student survey (10% response rate). Students provided responses on several subjects related to returning to school and campus, indicating that many students were eager to return to school. Still, others were reluctant or fearful, mostly based on family concerns.

NEW BUSINESS

Proclamation

Chair Kenneth Bradley presented a proclamation honoring UCF's faculty and staff for their courageous response to the extraordinary challenges from COVID-19. The proclamation went on to express appreciation and proudly applaud and commend their dedication, professionalism, resiliency, and creativity in continuing to move the university forward to an even greater future of impact for Central Florida, the Sunshine State, and the world.

The proclamation passed with acclamation.

New Degree Program –Master of Science in Themed Experience (EPC-1)

Timothy Letzring, Senior Associate Provost for Academic Affairs, presented the new degree program proposal for a Master of Science in Themed Experience. Letzring shared that this professionally focused, 33-credit hour degree program is dedicated to the design and production of themed environments. These environments include theme parks, immersive hotels, themed retail and dining, and many other experiences. The program builds upon the strength and diversity of UCF's theater, art, and design programs.

Trustee McAlpin motioned to approve, and Trustee Harrington seconded.

The committee unanimously approved the new degree program Master of Science in Themed Experience.

Conferral of Degrees (EPC-2)

Acting Provost Jana Jasinski presented conferral of degrees with over 3,850 graduates for Summer 2019.

Trustee Harrington motioned to approve, and Trustee La Rosa seconded.

Jasinski also explained the graduation ceremony limitations due to COVID-19. She provided information that while plans are still evolving, the Spring ceremonies will be used as a model for a virtual summer ceremony. Indicating that virtual ceremonies are complements to traditional ceremonies; UCF is committed to rescheduling conventional ceremonies at a future date.

The committee unanimously approved Conferral of Degrees.

Tenure with Hire (EPC-3)

Acting Provost Jasinski presented Tenure with Hire for two newly hired faculty members, who have been deemed eligible for tenure based on UCF requirements. Department faculty and the university administrative officers have approved granting tenure to these faculty members.

Trustee McAlpin motioned to approve, and Trustee Harrington seconded.

Chair Bradley recognized trustee David Walsh who commented on Tenure with Hire as a general topic. Expressing that going forward, UCF should make a more thorough effort to recruit diverse faculty members, endeavoring to make improvements in closing the percentage gap.

Chair Bradley called on President Cartwright for comment. The president agreed and stated that he is committed to attracting diverse talent.

The committee unanimously approved Tenure with Hire.

Second Amended and Restated Educational Programs Committee Charter (EPC-4)

Acting Provost Jasinski presented a proposed update to the Educational Programs Committee Charter, which was last approved by the Board of Trustees in May 2008.

Acting Provost Jasinski asked the committee to consider the intent and impact of the proposed changes. Jasinski outlined the submitted changes.

Trustee Harrington motioned to approve, and Trustee McAlpin seconded.

Trustee Harrington asked why items related to policies, academic program review, and the mission statement were removed from the charter. Academic Affairs staff informed the committee that the deleted items were no longer a requirement for Educational Programs Committee.

The committee unanimously approved the Second Amended and Restated Educational Programs Committee Charter.

Digital Learning Course Redesign Initiative Project Update (DLCRI) (INFO-1)

Dr. Thomas Cavanagh, Vice Provost, submitted an update on the DLCRI project. Initially directed by the Board of Trustees, the DLCRI project has specific objectives related to the use of digital tools, online and blended learning, adaptive learning, and active learning.

Amendment to 2020-21 and 2021-22 Academic Calendar (INFO-2)

Dr. Letzring informed the committee of an update to the academic calendar aligning the Drop and Add deadlines. This change will allow students a full week of classes before making a drop decision and will increase processing efficiencies. Historically, the drop deadline occurred one day before the add deadline.

ADJOURNMENT

Chair Bradley adjourned the Educational Programs Committee meeting on June 17, 2020, at 3:33 p.m.

Reviewed by:

| | |
|---------------------------------------|-------|
| _____ | _____ |
| Kenneth Bradley | Date |
| Chair, Educational Programs Committee | |

Submitted by:

| | |
|-------------------------------|-------|
| _____ | _____ |
| Janet Owen | Date |
| Associate Corporate Secretary | |

UCF BOARD OF TRUSTEES
Educational Programs Committee
August 12, 2020

Title: FY21 Educational Programs Committee Annual Plan

Background:

In response to trustee feedback, the Board Office, in coordination with the President's Office and committee staff, have drafted a template for all committees to use in developing plans for strategic discussions, informational presentations, and actionable items that come before the committees on an annual basis. The draft template was presented to all committee chairs for their input and direction on strategic and emerging discussion items that will be addressed in FY21 during the August 12, 2020 meeting.

Chair Bradley will present the Educational Programs Committee's Annual Plan and open the floor for discussion and committee input.

Issues to be Considered:

If members of the committee have additional input for agenda items to be added to the annual plan.

Alternatives to Decision:

This item is being provided for information only.

Fiscal Impact and Source of Funding:

N/A

Recommended Action:

This item is being provided for information only.

Authority for Board of Trustees Action:

N/A

Contract Reviewed/Approved by General Counsel:

N/A

Committee Chair or Chair of the Board approval:

Chair Kenneth Bradley has approved adding this item to the agenda.

Submitted by: Michael D. Johnson, Interim Provost and Vice President for
Academic Affairs

Supporting

Documentation: Attachment A: FY21 Educational Programs Committee Annual Plan

Facilitators: Kenneth Bradley, Chair, Educational Programs Committee



UNIVERSITY OF CENTRAL FLORIDA

UCF Board of Trustees

Educational Programs Committee Annual Plan

Fiscal Year 2021 (July 1, 2020 – June 30, 2021)

Mission Statement:

The University of Central Florida is a public multi-campus, metropolitan research university that stands for opportunity. The university anchors the Central Florida city-state in meeting its economic, cultural, intellectual, environmental and societal needs by providing high-quality, broad based education and experienced-based learning; pioneering scholarship and impactful research; enriched student development and leadership growth; and highly relevant continuing education and public service initiatives that address pressing local, state, national, and international issues in support of the global community.

Charter Summary:

Purpose: The general purpose of the **Educational Programs Committee** is to provide strategic input to the provost and president to ensure that curricular and co-curricular educational programs, student life, support services, faculty tenure, information technology, library resources, learning resources, and assessment systems are of high-quality and that they support and strengthen the institution's mission, strategies, and academic priorities.

Minimum Number of meetings: 4

Charter last amended: June 18, 2020

Minimum Number of members: 5

Next charter review: April 14, 2021

2020-2021 Committee Priorities:

Align actions with approved goals: Ensure university actions align with the president's strategic goals approved by the Board of Trustees.

Emerging Issues Monitoring: Enrollment Strategy, UCF Global, and Faculty Mix (Student-Faculty Ratio, Awarding of Tenure and Tenure with Hire).

Types of Agenda Items:

Currently, agenda items fall into three categories: Discussion, Information, and Motion.

Discussion: These items may include a specific theme that carries through several meetings. The chair develops these items with committee staff and presentations are structured to engage the Committee in strategic discussion.

Information: These items are brought before the Committee to educate, but also to engage the committee members in discussion that will set the background for a future action. Except for extenuating circumstances, the Committee should never be asked to act on a decision with significant fiscal or reputational impact without prior discussion as a full body.

Motion (Action): These items require committee approval as required by federal or state laws, external standards, Board of Governors' Regulations, Board policies, and/ or university regulations. These items require a motion and a vote, but approval is never assumed. Staff bring recommendations to the Committee, but the approval lies within the Committee's decision-making authority.

Educational Programs Committee Annual Plan Detail – FY21

| Committee Meeting Date | Item Type | Agenda Item | Lead(s) |
|------------------------|-------------|--|------------------------|
| August 12, 2020 | Discussion | Provost's Update | Johnson |
| | Information | FY21 Educational Programs Committee Annual Plan | Bradley |
| | Motion | Textbook and Instructional Materials Affordability Report | Berry Bowdon |
| | Motion | Potential Establishment of a Geospace Research Program | Klonoff |
| | Information | Academic Program Development Process | Letzring |
| | Discussion | Emerging Issue Action Plan Development – Faculty Mix including Student-Faculty Ratio, Awarding of Tenure, and Tenure with Hire | Johnson |
| Committee Meeting Date | Item Type | Agenda Item | Lead(s) |
| October 14, 2020 | Discussion | Provost's Update | Johnson |
| | Discussion | Admissions Testing Requirements | Johnson Chavis Preston |
| | Motion | Tenure with Hire* | Jasinski |
| | Motion | Degree Proposals* | Letzring |
| Committee Meeting Date | Item Type | Agenda Item | Lead(s) |
| November 19, 2020 | Discussion | Provost's Update, including Strategic Initiatives for Academic Affairs | Johnson |
| | Information | Accountability Plan with Updated Metrics | Johnson |
| | Motion | Fall Conferral of Degrees | Berry |
| | Motion | Tenure with Hire* | Jasinski |
| | Motion | Degree Proposals* | Letzring |
| Committee Meeting Date | Item Type | Agenda Item | Lead(s) |
| February 10, 2021 | Discussion | Provost's Update | Johnson |
| | Discussion | Mid-Year Annual Plan Assessment | Bradley |
| | Motion | Tenure with Hire* | Jasinski |
| | Motion | Degree Proposals* | Letzring |
| | Information | 2021 BOT EPC Meeting Dates | Bradley |
| Committee Meeting Date | Item Type | Agenda Item | Lead(s) |
| April 14, 2021 | Discussion | Provost's Update | Johnson |
| | Information | Educational Programs Committee Charter Review | Bradley |
| | Motion | Tenure Recommendations | Johnson |
| | Motion | Spring Conferral of Degrees | Berry |
| | Motion | Accountability Plan | Johnson Borden |
| | Motion | Tenure with Hire* | Jasinski |
| | Motion | Degree Proposals* | Letzring |
| Committee Meeting Date | Item Type | Agenda Item | Lead(s) |
| June 16, 2021 | Discussion | Provost's Update | Johnson |
| | Discussion | End-of-year Annual Plan Assessment | Bradley |
| | Motion | Educational Programs Committee Charter Amendments | Bradley |
| | Motion | Summer Conferral of Degrees | Berry |
| | Motion | Tenure with Hire* | Jasinski |
| | Motion | Degree Proposals* | Letzring |

*Item can be every meeting, as needed

UCF BOARD OF TRUSTEES
EDUCATIONAL PROGRAMS COMMITTEE
August 12, 2020

Title: 2020 SUS Textbook and Instructional Material Affordability Annual Report

Background:

House Bill 7019 passed during the 2016 Legislative Session and was signed into law by Governor Scott on 04/14/2016 (Chapter 2016-236, Laws of Florida). An amendment to Section 1004.085 regarding textbook and instructional materials affordability requires each university to submit an annual report by September 30 of each year to the Chancellor of the State University System. The report addresses the following: 1) required and recommended textbooks and instructional materials for general education courses; 2) specific initiatives of the university designed to reduce the costs of textbooks and instructional materials; and 3) university policies for the posting of textbooks and instructional materials.

Issues to be Considered:

2020 Textbook and Instructional Material Affordability Annual Report

Alternatives to Decision:

N/A

Fiscal Impact and Source of Funding:

N/A

Recommended Action:

Recommend approval of the 2020 Textbook and Instructional Material Affordability Annual Report.

Authority for Board of Trustees Action:

BOG Regulation 8.003

Committee Chair or Chairman of the Board approval:

Chair Kenneth Bradley has approved adding this item to the agenda.

Submitted by: Theodorea Regina Berry, Vice Provost, Student Learning and Academic Success and Dean, College of Undergraduate Studies

Supporting

Documentation: Attachment A: Textbook and Instructional Materials Affordability Annual Report

Facilitator:

Theodorea Regina Berry
 Melody Bowdon, Associate Vice Provost, Student Learning and Academic Success and Associate Dean, College of Undergraduate Studies

**State University System of Florida
Textbook and Instructional Materials Affordability
Annual Report
Statutory Due Date: September 30**

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|--|--|
| <u>University of Central Florida</u> University Submitting Report | <u>Fall 2019 and Spring 2020</u> Semester(s) Reported |
| <u>Date Approved by the University Board of Trustees</u> | <u>Signature of Chair, Board of Trustees</u> |
| <u>Signature of President</u> | <u>Signature of Vice President for Academic Affairs</u> |
| <u>Date</u> | <u>Date</u> |

1. Required and Recommended Textbooks and Instructional Materials for General Education Courses

a. Describe the textbook and instructional materials selection process for general education courses, including high enrollment courses.

Methodology for determining high enrollment: Order courses (course prefix/number) by headcount enrollment, excluding honors courses. The top 10% of courses are determined as high enrollment. Report the total number of courses (n).

General Education

Response:

UCF offered 795 General Education Program (GEP) course sections in fall 2019 and 693 in spring 2020. Materials for each selection were selected by faculty committees, course coordinators, or individual faculty members, depending on the course and department.

High Enrollment

Response:

UCF offered 145 high enrollment GEP course sections in fall 2019 and 128 in spring 2020. Materials for each section were selected by faculty committees, course coordinators, or individual faculty members depending on the course and the department.

b. Report the course title(s) and number of section(s) that do not require or recommend the purchase of a textbook(s) and instructional material(s).

Response:

See the tables on pages 2 and 3 for the GEP courses that did not have required or recommended textbooks or instructional materials.

Fall 2018

| Course Titles not Requiring or Recommending Purchase of Texts/Instructional Materials | Number of Sections |
|---|--------------------|
| AMH 2010: U.S. History: 1492-1877 | 1 |
| AMH 2020: U.S. History: 1877-Present | 1 |
| BSC 1005: Biological Principles | 1 |
| CGS 2100C: Computer Fundamentals for Business | 33 |
| COP 3502C: Computer Science I | 14 |
| FIL 1000: Cinema Survey | 3 |
| FIL 2030: History of Motion Pictures | 2 |
| GEO 2370: Resources Geography | 2 |
| HUM 2020: Encountering the Humanities | 1 |
| MAC 2311C: Calculus with Analytic Geometry | 11 |
| PHI 2010: Introduction to Philosophy | 3 |
| PHY 2053C: General Physics I | 1 |
| POS 2041: American National Government | 5 |
| STA 2014C: Principles of Statistics | 20 |
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Spring 2019

| Course Titles not Requiring or Recommending Purchase of Texts/Instructional Materials | Number of Sections |
|---|--------------------|
| AMH 2010: U.S. History: 1492-1877 | 1 |
| AMH 2020: U.S. History: 1877-Present | 2 |
| ANT 2000: General Anthropology | 1 |
| BSC 2010C: Biology I | 33 |
| COP 2500C: Concepts in Computer Science | 8 |
| COP 3502C: Computer Science I | 21 |
| COT 3100C: Intro to Discrete Structures | 15 |
| FIL 1000: Cinema Survey | 2 |
| FIL 2030: History of Motion Pictures | 2 |
| FIL 3036: Film History I | 1 |
| FIL 3037: Film History II | 1 |
| GEO 2370: Resources Geography | 1 |
| HUM 2020: Encountering the Humanities | 2 |
| PHI 2010: Introduction to Philosophy | 2 |
| PHY 2053: College Physics I | 2 |
| POS 2041: American National Government | 6 |
| PSY 2012: General Psychology | 1 |
| STA 2014C: Principles of Statistics | 20 |

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|---------------------------------|---|
| THE 2000: Theatre Survey | 1 |
|---------------------------------|---|

Fall 2019

| Course Titles not Requiring or Recommending Purchase of Texts/Instructional Materials | Number of Sections |
|---|--------------------|
| AMH 2020: U.S. History: 1877-Present | 2 |
| ANT 2000: General Anthropology | 2 |
| AST 2002: Astronomy | 1 |
| BSC 1005: Biological Principles | 1 |
| BSC 2010C: Biology I | 33 |
| CGS 2100C: Computer Fundamentals for Business | 37 |
| ENC 1101: English Composition I | 5 |
| FIL 1000: Cinema Survey | 2 |
| FIL 2030: History of Motion Pictures | 2 |
| GEO 2370: Resources Geography | 1 |
| HUM 2020: Encountering the Humanities | 6 |
| HUM 2210: Humanistic Tradition I | 2 |
| MAC 1105C: College Algebra | 1 |
| PHI 2010: Introduction to Philosophy | 4 |
| PHY 2048C: General Physics Using Calculus I | 4 |
| PHY 2053C: College Physics I | 18 |
| POS 2041: American National Government | 9 |
| PSC 1121: Physical Science | 1 |
| THE 2000: Theatre Survey | 4 |

Spring 2020

| Course Titles not Requiring or Recommending Purchase of Texts/Instructional Materials | Number of Sections |
|---|--------------------|
| AMH 2020: U.S. History: 1877-Present | 3 |
| ANT 2000: General Anthropology | 3 |
| AST 2002: Astronomy | 1 |
| BSC 2010C: Biology I | 32 |
| CGS 2100C: Computer Fundamentals for Business | 25 |
| CHM 2045C: Chemistry Fundamentals I | 5 |
| ECO 2013: Principles of Macroeconomics | 1 |
| ECO 2023: Principles of Microeconomics | |
| ENC 1101: English Composition I | 7 |
| ENC 1102: English Composition II | 3 |
| EVR 1001: Introduction to Environmental Science | 1 |
| FIL 1000: Cinema Survey | 2 |
| FIL 2030: History of Motion Pictures | 2 |
| FIL 3037: Film History II | 1 |
| GEO 2370: Resources Geography | 1 |
| HUM 2020: Encountering the Humanities | 8 |
| LIT 2110: World Literature I | 1 |
| MUL 2010: Enjoyment of Music | 1 |
| PHI 2010: Introduction to Philosophy | 3 |

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|--|---|
| WOH 2012: World Civilization I | 1 |
| WOH 2022: World Civilization II | 1 |
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| PHY 2048C: General Physics Using Calculus I | 2 |
| POS 2041: American National Government | 6 |
| THE 2000: Theatre Survey | 3 |
| WOH 2012: World Civilization I | 1 |
| WOH 2022: World Civilization II | 1 |

2. Specific Initiatives of the University Designed to Reduce the Costs of Textbooks and Instructional Materials for General Education Courses

a. Describe specific initiatives of the institution designed to reduce the costs of textbooks and instructional materials.

Response:

Units from across campus are working on several fronts to reduce the costs of textbooks and instructional materials.

Student Success/Textbook Affordability Librarian

In March 2019, a Student Success/Textbook Affordability Librarian was hired, providing a dedicated representative and point of contact among the libraries, faculty, and other university partners in this work. In addition to promoting textbook affordability efforts through support and outreach, the librarian identifies and connects with faculty who are providing zero cost materials to their students, identifies the types of course materials used, and tracks potential student savings. Prior to the arrival of this librarian, UCF librarians partnered with faculty to create an open textbook: *Anthology of Medieval Literature*; the team has also been involved with a Complete Florida grant that supported the creation of several more open educational resources.

Open Educational Resources (OER) in GEP Faculty Development Initiative

UCF's General Education Program (GEP) is committed to encouraging the use of OER in foundational courses. Since fall 2018 76 GEP faculty members have participated in workshops related to this effort. Further, in May 2020, the College of Undergraduate Studies, in collaboration with UCF Libraries and the Center for Distributed Learning, ran two weeklong virtual bootcamps with nearly forty faculty participants from all five GEP foundations. The workshops helped faculty members working in teams to review, adopt, adapt, enhance, and create OER for their courses.

Campuswide Faculty Development Programming

UCF Libraries makes ongoing presentations to faculty in collaboration with the Faculty Center for Teaching and Learning and Center for Distributed Learning to

promote textbook affordability efforts at UCF. UCF librarians also provide direct programming for faculty through department meetings on Textbook Affordability.

Print Textbook Reserve Collection

A print textbook reserve collection was started in fall 2018 with a contribution of \$10,000 from the library to purchase 57 textbooks for GEP courses with high drop, fail, or withdrawal rates, or that supported GEP courses. This collection provides first-come, first-serve access to textbooks for a two-hour period. This collection was supplemented with a \$2,000 grant from Student Government Association and additional donations from faculty, students, and other campus units.

UCF Parent and Family Fund Grant

In fall 2019, UCF Libraries, in partnership with the Office of Student Success (now named the Office of Data and Strategic Projects), received an \$8,000 grant from UCF's Parent and Family Fund. With a little more than half this funding, the grant was able to purchase an additional 45 books for GEP courses to be added to the Print Textbook Reserve Collection. Of the 45 books purchased, 22 books circulated a total of 131 times in fall 2019. One book, *Consider Philosophy*, was loaned out 40 times. The remaining funds were used to support the Knights Emergency Textbook Fund, where at-risk students applied to have all their textbook costs covered. Prior to purchasing a text, the Textbook Affordability Librarian reviewed the request and any available e-books used as course textbooks were added to the library collection to benefit all students in the course.

STARS

Faculty share open course resources through STARS, the university repository Showcase of Text, Archives, Research & Scholarship.

(<https://stars.libraries.ucf.edu/>)

Library e-Books

UCF librarians actively search for textbooks that are available as e-books with unlimited use. These are 1-to-1 replacements of currently assigned course textbooks and are available to UCF students. Once these books are identified and purchased, faculty are informed of their availability and asked to share this information with students in their courses. Since the fall 2018 semester, 140 courses and a total of 324 sections have used a library e-book as a replacement of the course text, with a potential savings of \$1,049,321.15.

Use of Free Resources

UCF librarians support faculty in locating compilations of free resources in lieu of textbooks. In many cases a variety of materials are used to illustrate course concepts. These resources range from specific chapters in an OER, to resources from websites/digital archives, articles, and/or videos. Since fall 2018, eight GEP courses with a total of 91 sections used a combination of resources available to students instead of a traditional textbook.

Textbook Donation Drive

UCF Libraries partnered with Student Government Association and Knights Pantry on a Textbook Donation Drive at the end of spring 2019. More than 60 books were donated to support 39 courses through the Print Textbook Reserve. The estimated value of the books donated in the spring was more than \$6,000. This drive was repeated in both the summer and fall of 2019.

UCF's bookstore offers several cost saving choices that enable students to select the purchasing options that meet their needs.

Price Match Program

Students can compare the cost of course materials at off-campus bookstores (e.g., BN.com, Amazon, and local bookstores). If they find course materials at a lower price, UCF's bookstore, Barnes & Noble, will match it.

Rental Program

This program allows students to rent new or used textbooks. It provides an affordable and convenient option. Students can acquire textbook rentals in-store or online with several options for payment; highlight text and make notes on pages; keep books until finals are over; and return books at the bookstore or through the mail. On average, the cost savings for rental books is 70 to 80 percent versus purchasing a new book.

Used Course Materials Option

Students also have the option to purchase used textbooks through UCF's Cash for Books program. At the end of each semester, students can sell their books back to Barnes & Noble. Depending on the condition of the materials, students can receive up to 50 percent of the new textbook price. The bookstore closely reviews course information to identify those materials that may be used again. The bookstore then notifies students who have purchased those titles that their books can be sold back to the store. As a result, the next year's students are able to purchase these used books at a discounted price, giving all students the opportunity to save money through used textbooks. Nearly 80 percent of all titles are available for purchase at all of UCF's campuses as used course materials.

Digital Option

Digital textbooks allow students to save up to 60 percent compared to traditional textbooks. The bookstore's digital offerings are designed with convenience in mind, allowing students to choose from several forms of payment and to access these materials immediately following their purchase or digital rental. To optimize the digital experience, the bookstore offers the newly released Yuzu™ Web, iOS®, and Android™ apps. Nearly 40 percent of textbooks are currently offered in digital format.

b. Is the opt-in provision an initiative implemented by the institution for the purchase of student materials? If yes, describe the impact this has had on student cost savings, if any.

Response:

First Day Inclusive Access is the opt-in provision initiative implemented by UCF for the purchase of student materials. First Day™ is the Barnes & Noble College's inclusive access model where digital course materials are provided for a particular course or program. In fall 2019, student cost savings from participation in the opt-in provision was \$1,073,332. In spring 2020, student cost savings from participation in the opt-in provision was \$1,397,319.

3. University Policies for the Posting of Textbooks and Instructional Materials

a. Describe policies implemented to ensure the posting of textbook and instructional materials for at least 95% of all courses and course sections 45 days before the first day of class. For course sections that require or recommend textbooks and instructional materials based on individual student needs (e.g., audition/performance, directed independent study, research topic) that may miss the posting date, please reference these as exceptions in 3(d).

Response:

UCF's Regulation 2.032 Textbook Adoption establishes an internal adoption deadline of no later than 50 days prior to the start of classes each semester. In support of the regulation, UCF has implemented a Textbook and Instructional Materials Affordability communication timeline, which ensures the timely adoption of textbooks and instructional materials.

b. Are the policies effective in meeting the reporting requirement? If not, what measures will be taken by the institution to increase faculty and staff compliance for meeting the reporting requirement?

Response:

UCF's policies and procedures, which are reviewed and updated regularly, are effective in meeting the reporting requirements. Since their implementation, UCF has continued to see improvements in faculty and staff compliance for meeting the reporting requirement and has consistently met or exceeded the 95% target.

| Semester | Adoption Rate (by 45-day deadline) |
|-----------------|---|
| Fall 2018 | 95% |
| Fall 2019 | 96.5% |
| | |
| Spring 2019 | 97% |
| Spring 2020 | 98.8% |

c. Report the number of course sections and the total percentage of course sections that were able to meet the textbook and instructional materials posting deadline for the academic year. Note: A course section is in compliance if all textbooks and instructional materials in the course section have been entered by the deadline.

Response:

| Semester | 45-Day Deadline | # of Course Sections in Compliance | % of Course Sections in Compliance |
|-----------------|------------------------|---|---|
| Fall 2019 | 7/12/2019 | 6,199 | 96.5% |
| Spring 2020 | 11/22/2019 | 6,066 | 98.8% |

d. Report the number of course sections and the total percentage of course sections that necessitated change(s) in materials after the posting deadline. Provide an explanation for the change(s) in materials after the required deadline.

Response:

| Semester | # of Courses with Changes | % of Courses with Changes |
|-----------------|----------------------------------|----------------------------------|
| Fall 2019 | 25 | 0.4% |
| Spring 2020 | 105 | 1.7% |

Changes were made to courses after the deadline due to change in assigned instructor, adding a recommended text, adding a digital component (e.g., iclicker, access code), adding a book format option (e.g., adding the same book in digital form), and publisher and ISBN changes. In spring 2020, for example, 25 course sections were changed after the deadline due to an ISBN change by the bookstore.

e. Report the number of course sections and the total percentage of course sections that were not able to meet the textbook and instructional materials posting deadline for the academic year. Provide an explanation as to why the course sections were not able to meet the posting deadline. Note: A course section is not considered in compliance if all textbooks and instructional materials in the course section were not entered by the deadline.

Response:

| Semester | 45-Day Deadline | # of Course Sections Unable to Meet Deadline | % of Course Sections Unable to Meet Deadline |
|-----------------|------------------------|---|---|
| Fall 2019 | 7/12/2019 | 224 | 3.5% |
| Spring 2020 | 11/22/2019 | 74 | 1.2% |

Course sections were not able to meet the posting deadline due to pending changes in staffing and scheduling issues. Further, several of the course sections that did not meet the reporting deadline during this academic year did not require course materials. Additional efforts have been made by UCF to ensure that course sections not requiring materials are identified before the adoption report deadline.

f. Report the number of courses that received an exception to the reporting deadline. Describe the exception(s) provided.

Response:

The following course requested and received an exception in fall 2019.

ECO 3101

The instructor for this course was assigned after the posting deadline.

In addition, 6,204 sections of courses that provided instruction based on individual student needs (e.g., audition/performance, directed independent study, research topic) were exceptions to the fall 2019 posting deadline.

The following course requested and received an exception in spring 2020.

PCB 4932/5362

The instructor for this course was assigned after the posting deadline.

In addition, 4,767 sections of courses that provided instruction based on individual student needs (e.g., audition/performance, directed independent study, research topic) were exceptions to the spring 2020 posting deadline.

UCF BOARD OF TRUSTEES
EDUCATIONAL PROGRAMS COMMITTEE
August 12, 2020

Title: Potential establishment of UCF Geospace Research Program

Background:

SRI International (SRI), a nonprofit California corporation founded by Stanford University in 1946, operates a Center for Geospace Studies, reported as a worldwide leader in several research fields related to the broad subject of space physics. The Geospace group has a diverse pool of scientists who have played a pivotal role in the Space Science academic community, both nationally and internationally. Certain strategic business decisions by SRI are reported to have led to the potential opportunity for transfer of some or all of the Geospace researchers, and their sponsored research, to UCF, via the UCF Research Foundation.

The Geospace researchers focus on advanced fundamental physics related to the near-Earth environment, heliosphere, and space plasmas; discover the evolution, dynamics, and coupling mechanisms in the upper atmosphere, magnetosphere, solar and interplanetary space, develop ground and space based sensor and deploy them for basic scientific research. Similar to UCF's operation of the Arecibo Observatory (and in fact, SRI previously operated the Arecibo Observatory), they operate a parabolic dish radar in Sondrestrom, Greenland, and advanced modular incoherent scatter radars in Alaska and the Canadian Arctic, in addition to providing information technology and communications support to the entire Arctic as a team member in the NSF Arctic Research Support and Logistics Services program. Each of these would potentially transfer to the UCF Research Foundation to complement and further enhance the mission of UCF's Florida Space Institute (FSI) to grow UCF space research.

UCF's FSI seeks to essentially transfer the Geospace program, to include scientists and research awards, to UCF, to enable FSI to expand the scientific work of the group in an academic environment and begin to establish leadership in Geospace research both national and internationally focusing on solving critical scientific problems, particularly in areas with immediate and consequential societal impact. The Geospace researchers are reported to have expertise in teaching both the basics and applications of space physics, advising undergraduate and graduate student projects, and developing comprehensive curricula involving theoretical and practical training for students at all levels.

Issues to be Considered:

Although interested in UCF because of the synergies briefly discussed, many of the Geospace researchers are not willing to relocate from California, and for an employer to have employees in California, at minimum, registration to do business is legally required. Complexities suggest operating such activity through the UCF Research Foundation is preferred. Please refer to Attachment A – threshold issues currently identified.

The approval sought today is preliminary approval for the UCF Research Foundation to potentially register to do business in California, pending successful navigation of the threshold issues. That is, no filings for registration will result but the preliminary approval will support the dedication of resources to fully investigate and create detailed proposals for mitigation and management of the threshold issues. Thereafter, the matter will be brought back to this Committee and the Board of Trustees for more specific consideration and approval to move forward.

Alternatives to Decision:

Denial of the preliminary approval, which will likely result in an abandonment of the efforts to transfer the Geospace researchers.

Fiscal Impact and Source of Funding:

Committed preliminary obligations include a six-month consulting services contract with ARES Corporation, supporting certain activities of a former SRI Geospace director, in the amount of \$223,566.72. An FSI department account is being used to cover these costs, with the Vice President for Research having granted approval for pre-spending against at least one of the sponsored projects that is potentially to be transferred. In the event the transfers do not proceed, the Office of Research and FSI will sponsor and share those costs accordingly.

Pending further investigation into the threshold issues, additional costs, such as, for example, those associated with engaging California legal counsel and a Professional Employer Organization to outsource the UCF Research Foundation human resource services for the California employees, and with leasing space and implementing appropriate infrastructure to support compliance with California data privacy laws and the like, are anticipated to be recoverable from related sponsored research overhead, including transfers from SRI to UCF Research Foundation, and new sponsored projects anticipated to be awarded to the UCF Research Foundation via the new Geospace program. As with the ARES contract, any other expenses accrued prior to such earned overhead being recovered will be sponsored and shared by the Office of Research and FSI accordingly. Further investigation into the threshold issues will enable provision of more detailed analysis of fiscal impact.

Recommended Action:

Approve the potential registration of the UCF Research Foundation to conduct business in the State of California, following the appropriate consideration of the threshold issues currently identified, and with such registration only proceeding upon further approval of this Committee and the Board of Trustees, following its satisfaction as to, at least, the threshold issues.

Authority for Board of Trustees Action:

Board of Governors' Regulation 1.001

Board of Governors' Regulation 9.011

Board of Governors' Regulation 10.002

Contract Reviewed/Approved by General Counsel:

N/A

Committee Chair or Chair of the Board approval:

Chair Kenneth Bradley has approved adding this item to the agenda.

Submitted by: Elizabeth A. Klonoff, Ph.D., ABPP
Vice President for Research and Dean of the College of Graduate Studies

Supporting

Documentation: Attachment A: Threshold Issues to be Considered (TBD)
Attachment B: Center for Geospace Studies: A Path Forward Proposal (TBD)
Attachment C: ARES Corporation Consulting Services Agreement (TBD)

Facilitator: Sandra Sovinski, Deputy General Counsel for Research

Threshold Issues to be Considered

Currently Identified Threshold Issues related to the Potential Opportunity for UCF Research Foundation to establish a Geospace Research Program, with Employees and Site in California:

1. Identification of all information necessary for seeking Florida Board of Governors' approval for establishment of special purpose center apart from the main campus, as applicable pursuant to BOG regulation 8.009.
2. Confirmation of no applicable SRI agreements with restrictive covenants (non-competes)*
3. Tax implications of operating in California*
4. California Board of Education obligations *
5. California employment law/privacy law compliance obligations*
 - a. Infrastructure/operational needs
 - b. Ensuring coincident compliance with Florida law
6. Suitable research/office space in California
7. Terms and obligations of current sponsored projects, if transferred
8. Pending sponsored project proposals
9. Necessary rights to SRI intellectual property and confidential information, for continued research

*Indicates Threshold Issues that will require California counsel

Center for Geospace Studies

A Path Forward

Mission statement

The Center for Geospace Studies (CGS) mission is to:

advance fundamental physics related to the near-Earth environment, heliosphere, and space plasmas; discover the evolution, dynamics, and coupling mechanisms in the upper atmosphere, magnetosphere, solar and interplanetary space; develop ground- and space-based sensors and deploy them for basic scientific research as well as environmental monitoring and situational awareness; create physics-based and computational models for improved understanding of plasma physics as well as operational forecasting.

Background

The Center for Geospace Studies (CGS) has a long standing reputation as a worldwide leader in several research fields related to the broad subject of space physics. CGS scientists share a diverse pool of expertise to study the earth's plasma environment that includes the mesosphere, thermosphere, ionosphere, and magnetosphere. CGS has played a pivotal role in the Space Science academic community, both nationally and internationally, and a number of leading US academics, as well as key members of international communities, are CGS alumni.

CGS has built and operated incoherent-scatter radar facilities for research since the early seventies, and has designed, built and operated state-of-the-art phased array incoherent-scatter radars since the early 2000s. CGS also has a longstanding heritage of ground-based and satellite optical and radio instrument development. Multiple instruments developed by CGS have been flown in large and small satellites.

CGS has an established reputation in data analysis research of ionospheric physics and magnetosphere-ionosphere coupling physics. Members of CGS are recognized experts in Big Data analysis techniques and applications and play leading roles in the geospace community in open data access, application of machine learning, and cyberinfrastructure development.

Beyond the broad range of expertise in Space Physics research, CGS brings a culture of effective multi-disciplinary collaboration that is critical for the advancement of cutting-edge projects.

Research Assets

The CGS (and precursor Radio Physics Laboratory), has maintained research expertise in the space physics community by building and developing new measurement tools, operating large national observatories, refining supportive optical and RF instruments, developing physics-based models for interpreting state variables, and exploiting opportunities for space payload fabrication, flight, and analysis. Some of these research achievements and current capabilities are listed below.

Ground-based Instruments

Incoherent Scatter Radars (ISRs)

Chatanika and Sondrestrom Incoherent Scatter Radar:

The L-band single parabolic dish radar made crucial auroral region measurements in Chatanika, Alaska, before being moved to Sondrestrom, Greenland, where it operated for over three decades under a cooperative agreement with the NSF. CGS teams successfully developed this first movable ISR, and operated it in harsh remote locations. Measurements obtained with this radar in both Alaska and Greenland are responsible for developing critical understanding of space plasmas, and the measurements techniques and systems developed were instrumental for future ISR operations.

Advanced Modular Incoherent Scatter Radar (AMISR):

Building upon experience with the Sondrestrom ISR, CGS developed and built the world's first phased array incoherent scatter radar, which is known as AMISR. Under cooperative agreement with the NSF, CGS built, operates, and maintains two AMISRs. The Poker Flat Incoherent Scatter Radar (PFISR) is located at the Poker Flat Research Range (PFRR) in Alaska and has been performing science operations nearly continuously since March 2007 with greater than 90% uptime. PFISR is co-located with many other scientific instruments, including cameras, lidars, and magnetometers and is often used to support NASA sounding rocket campaigns launching from PFRR. The

continuous operations capability of PFISR has captured dynamics that would otherwise have been missed with a campaign only operation schedule, including storm time onset dynamics. The North face Resolute Bay Incoherent Scatter Radar (RISR-N) is located in the Canadian Arctic at Resolute Bay, Nunavut. RISR-N has been in operation since 2008, performing campaign-style experiments throughout the year, until 2019 when semi-continuous operations were trialed. RISR-N is the only ISR in the world located deep in the polar cap, providing unique and critical specification of the polar cap ionosphere for studies of upflow and outflow, convection, patches, ion-neutral coupling, and polar cap arcs.

Arecibo Observatory

CGS has a substantial history in the operation of the Arecibo Observatory including providing all the staff of the Space and Atmospheric Physics Section (SAS). SAS maintained and operated the Incoherent Scatter Radar, commissioned and operated the Arecibo Ionospheric Modification Facility (Heater), operated the Observatory-based LIDAR and optical facility, and established the Remote Optical Facility (ROF) on Culebra. The combination of the extreme sensitivity of the incoherent scatter radar and the local heater facility is unique in the World and supports fundamental plasma physics research while the incoherent scatter radar itself is also a key contributor to geospace science and system science.

Optical camera networks

CGS scientists have developed and deployed a large network of all-sky cameras measuring ionospheric airglow between 200-350 km, known as the MANGO (Midlatitude Allsky-imaging Network for GeoSpace Observations) network. These science-grade cameras were developed using off-the-shelf components at a fraction of the cost of traditional scientific all-sky cameras. The camera and enclosure systems were designed to be stand-alone, autonomous, and requiring minimal maintenance. Based on the successful operation of MANGO, NSF awarded the new Distributed Array of Small Instruments (DASI) grant to CGS to create a similar network of cameras measuring thermospheric airglow at 100km altitude.

Space-based sensors

FUV photometer

A far UV photometer measuring the atomic oxygen at 135.6-nm, the CubeSat Tiny Ionospheric Photometer (CTIP) was developed and flown on the USAF SENSE

operational mission. It will also be flown in FY 2021 in a rotating tomographic geometry for the NSF IT-SPINS mission. A two-channel narrow-band variant of CTIP, capable of boresighted atomic oxygen and molecular nitrogen measurements, was recently developed with NASA Heliophysics support and is currently proposed for dayside O/N₂ assessment on both a CubeSat mission (UAF) as well as a MidEx mission (GSFC). This new FUV photometer was the primary instrument on a cis-lunar hydrogen geocorona mission down-selected for concept development in 2015.

RF beacons

CGS has built and flown NASA and DoD supported phase-coherent RF beacons since the mid 1960s in support of basic and applied investigations of ionospheric structuring. The most recent payloads flying include the Multifrequency Ionospheric Sensing Transmitter (MIST) and the Tandem Beacon Experiment (TBEx), orbiting on the six COSMIC-2 and two TBEx host satellites, respectively. These beacons are currently being used for studies of equatorial plasma bubble genesis and evolution.

Passive Radar receivers

CGS investigators have developed a series of CubeSat-scale UHF radar receivers for use with ground-based high power transmitters in support of high-latitude plasma turbulence and equatorial scintillation studies. The Radio Aurora Explorer (RAX) was the primary payload on the first-ever NSF CubeSat mission and successfully measured turbulent plasma structuring in response to a geoeffective CME. The follow-on all digital Ionospheric Scintillation Explorer (ISX) receiver was specifically designed to capture serendipitous transmissions from digital TV stations in a passive radar mode.

Physics-based and Computational Models

CGS space physics research is supported by a family of first-principle models, standard operational processing, and mission-specific retrieval tools. These tools include, for example, incoherent scatter spectral retrieval of range-resolved plasma density, temperature, and composition; vector velocity extraction from line-of-sight plasma drifts; auroral average energy and energy flux from radar and optical data inversion; and estimates of neutral wind, joule heating, and electrical conductivity.

Remote facility operation and maintenance

CGS has decades of experience on the Arctic Research Support and Logistics Services (ARSLS) program of the National Science Foundation. SRI is part of a team led by CH2M HILL, Inc. providing information technology and communications support to Arctic scientists. The team's work covers the entire Arctic, including Greenland, Canada, Alaska, Russia, and the Arctic Ocean. It provides Internet infrastructure, radio, and satellite phone communications, remote data transportation, and serves as the communications backbone for remote autonomous scientific instrumentation.

Vision for future

Academic

Expand the scientific work of the group in an academic environment to establish leadership in geospace research both nationally and internationally focusing on solving critical scientific problems, particularly in areas with immediate and consequential societal impact.

Teaching

CGS scientists have expertise in teaching both the basics and applications of space physics, advising undergraduate and graduate student projects, and developing comprehensive curricula involving theoretical and practical training for students at all levels.

Potential courses that can be taught by CGS scientists in collaboration with the departments of Physics, Applied Physics, and Engineering:

- Fundamentals of space plasma physics
- Magnetosphere and ionospheric physics
- Physics of space weather
- Theory and applications of incoherent scatter radars
- Radar diagnostics of the upper atmosphere
- Design of miniaturized remote-sensing instrument payloads
- Design of small satellite missions

These courses could be customized for students at advanced undergraduate to graduate levels, semester teaching, or summer seminar series for credit. The courses

could be taught in Florida with lecturers from both UCF and the CGS in Silicon Valley. Such a course would be able to include a practical applied component where students would be able to participate in operations, experiments, data processing/interpretation, and scientific research using existing research assets, such as the Arecibo or AMISR radars.

Student advising

CGS could provide unique opportunities for students of UCF via a visiting scholar program, summer research projects, and supervision/co-supervision of master's and/or PhD students.

- Summer research via REU program/funding directly from NASA/NSF grants awarded to Geospace
- Master's and PhD projects require coursework and research.
 - Several CGS projects are conducive to well-defined master's thesis project work, which could be undertaken in California under the supervision of the CGS scientists.
 - CGS scientists would collaborate with UCF faculty on PhD students, come up with research projects for a student's PhD thesis, and be on the thesis committee for the student.
- Undergraduate senior projects
 - Several CGS projects are amenable to defined undergraduate senior projects for Engineering and Computer Science students. CGS scientists have worked with several teams of senior undergraduate students in the past on their senior projects.

Additional student opportunities: As an established campus in the Silicon Valley, the CGS group can serve as a conduit to introduce UCF students to wider opportunities that exist in the Silicon Valley.

Research

The initial years will establish a firm foothold of the Space Physics program with the existing capabilities brought onboard by CGS and the synergy achieved between CGS's expertise and the expertise of the Physics, Computer Science and Engineering departments. These would include:

1. Design at least one 50-million class Cube-Sat constellation mission that would address compelling outstanding questions in Space Physics. Such a mission

would involve the participation of advanced undergraduate and graduate students from the Physics, Engineering and Computer Sciences departments. Because all the necessary expertise to make such a mission possible would not be initially within the group, the mission team would involve other institutions. Building up the key missing components for proposing completely in-house spacecraft missions will be part of the ten-year plan.

2. Continue to create proposal ideas for projects that make use of synergy between ground-based assets and high-altitude in-situ measurements. There are several examples of NASA missions that can greatly enhance the science return by using proper combination of ground-based optical and radio technologies with spacecraft assets. One of them is the mission proposal “Mechanisms of Energetic Mass Ejection Explorer” (MEME-X), which has three CGS members as Co-Is. Another example is the Living With a Star (LWS) mission concept “Geospace Dynamics Constellation” which is designed to study the coupling between the magnetosphere and the ionosphere/thermosphere (IT) system.
3. Create effective collaboration with Earth Science and Planetary Astronomy groups at UCF in order to explore new discovery science. Since the science carried out by CGS is at the boundaries of several disciplines and atmospheric and geospace regions, there exists significant potential to join forces with other disciplines. The fields of Earth Science, Planetary Astronomy, and Geospace studies all would benefit from mutual sharing of expertise in technology and science.

In the longer term we will leverage CGS expertise and established heritage in radio and optical techniques to build a robust program of instrument development (ground-based and spacecraft). This objective will require building appropriate facilities for manufacturing and testing and the plan contemplates the establishment of:

1. A robust program for spacecraft mission support,
2. A robust program for instrument development, and the development of the next generation of phased-array radars. We will leverage the concepts for the next generation phased array radars that have already been created at CGS to develop an entire new system that will serve the objectives of the next generation of science.

Recruitment of additional faculty will be necessary to add the capabilities that will be required for the development of these programs. We envision the addition of expertise in the areas of Artificial Intelligence, Data Science, Spacecraft Systems, modelling and theory of plasmas, and electrical engineers with expertise in radio techniques.

STANDARD CONSULTING SERVICES AGREEMENT

This Consulting Agreement ("Agreement") between the University of Central Florida Board of Trustees, for the benefit of the Florida Space Institute ("UCF" or "Client") and ARES Corporation ("Consultant" or "Contractor") is made and entered into as of the date of the last signature hereto.

WHEREAS, UCF desires to retain the services of Consultant that were contemplated in GSA Contract GS-23F-0113L, pursuant to the following details.

1. Client hereby enters into this Agreement for services with Consultant in consideration of and pursuant to the terms and conditions set forth herein.
2. Consultant will perform those services described in the Attachment A - Statement of Work and by reference incorporated herein.
3. Consultant's services under this Agreement shall commence on date of last signature on this Agreement and end six months from this commencement date, unless renewed by mutual written agreement of the parties hereto prior to the termination date or sooner terminated pursuant to the terms hereof. Renewals shall not exceed five (5) years or twice the length of this initial Agreement.
4. Consultant will submit monthly invoices for services performed and expenses incurred. Client will make payment to Consultant within thirty (30) days of receipt of an invoice from Consultant. Labor will be reimbursed at hourly rates proposed by Consultant and listed in Attachment B - Pricing. Consultant will have to obtain Client's prior written approval for travel and all such travel shall only be reimbursed in accordance with applicable law, including, but not limited to Section 112.061, Florida Statutes as well as applicable UCF policies and regulations.
5. Consultant will be permitted to use and be granted access to Client's or Client's designee's equipment, supplies, information and facilities as deemed necessary by Client for the purpose of fulfilling the Statement of Work.
6. Consultant's obligations under the terms of this Agreement shall be considered fulfilled upon completion of the period of performance.
7. Consultant agrees to hold in strict confidence and not disclose to anyone (unless required by law), or specifically authorized by Client, any and all of Client's information to which Consultant will have had access.
8. Consultant is retained by UCF only for the purposes and to the extent set forth in this Agreement. Consultant's relationship to UCF shall be that of an independent contractor. UCF shall not reserve any control with respect to the activities of Consultant or the manner and means by which Consultant affects the services described in this Agreement. UCF shall not have any obligations with respect to employment contributions, taxes, premiums, or other items payable under federal, state and local laws with respect to the activities of Consultant.
9. Either party may terminate this Agreement with thirty (30) days' prior written notice to the other party. Client shall be responsible only for payments still due to Consultant for services performed in accordance with this Agreement up to the time of termination. Client may terminate this Agreement at any time for refusal by Consultant to allow public access, mandated by law, to all documents, papers, letters, or other non-exempt materials subject to the provisions of Chapter 119, Florida Statutes, and made or received by Consultant or Client in conjunction with this Agreement.

10. IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT: Office of the General Counsel (407) 823-2482 gcounsel@ucf.edu University Of Central Florida 4365 Andromeda Loop Mall, Suite 360, Orlando, FL 32816-0015.

PUBLIC RECORDS, CONTRACT FOR SERVICES

To the extent that Contractor meets the definition of "Contractor" under Section 119.0701, Florida Statutes, in addition to other contract requirements provided by law, Contractor must comply with public records laws, including the following provisions of Section 119.0701, Florida Statutes:

1. Keep and maintain public records required by the public agency to perform the service.
2. Upon request from the public agency's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.
3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the public agency.
4. Upon completion of the contract, transfer, at no cost, to the public agency all public records in possession of the contractor or keep and maintain public records required by the public agency to perform the service. If the contractor transfers all public records to the public agency upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the public agency, upon request from the public agency's custodian of public records, in a format that is compatible with the information technology systems of the public agency.

A request to inspect or copy public records relating to a public agency's contract for services must be made directly to the public agency. If the public agency does not possess the requested records, the public agency shall immediately notify the contractor of the request, and the contractor must provide the records to the public agency or allow the records to be inspected or copied within a reasonable time.

If a contractor does not comply with the public agency's request for records, the public agency shall enforce the contract provisions in accordance with the contract.

This Contractor and any subcontractors shall abide by the requirements of 41 CFR §§ 60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, national origin, protected veteran status or disability.

11. If Consultant will be handling Restricted Data or Highly Restricted Data, as those terms are defined in UCF Policy 4-008.1 Data Classification and Protection, Consultant hereby agrees to fully comply with all of the requirements set forth in said policy. Consultant hereby agrees to indemnify, hold harmless and defend UCF and its Board of Trustees, officers, agents and employees from and against any claims, damages, or other harm arising from or in any way related to Consultant's breach of any of the obligations set forth in UCF Policy 4-008.1 Data Classification and Protection, including the handling of Restricted Data or Highly Restricted Data.

If Consultant has access to any personally-identifiable information, Consultant hereby agrees to comply with all applicable laws that require the notification of individuals in the event of unauthorized release of personally-identifiable information or other event requiring notification. In the event of a breach of any of Consultant's security obligations or other event requiring notification under applicable law ("Notification Event"), Consultant agrees to assume responsibility for informing all such individuals in accordance with applicable law and to indemnify, hold harmless and defend UCF and its Board of Trustees, officers, agents and employees from and against any claims, damages, or other harm related to such Notification Event.

This Agreement may not be amended except in writing, which writing shall be expressly identified as a part hereof, and be signed by an authorized representative of each of the parties hereto.

12. Notwithstanding anything contained herein, Consultant's liability shall not exceed the total value as set forth in Attachment B to this Agreement.

13. Consultant will obtain written permission of Client to subcontract services under this Agreement.

14. Any notice or other communication required under this Agreement shall be in writing and sent to the addresses set forth below:

If to Consultant:

ARES Corporation
Attn.: Eugene Jerebitski
8444 Westpark Dr, McLean, VA 22102
Phone: 703-714-9960

If to UCF:

University of Central Florida
Florida Space Institute
12354 Research Parkway
Partnership 1 Building Suite 214
Orlando, FL 32826
Phone (321) 266-7382
Fax (407) 823-6359

Notices shall be given by and to the hereto assigned representative on behalf of Client, and by Consultant, or such authorized designees as either party may designate in writing.

15. In the event that any court of competent jurisdiction shall hold any provision of this Agreement unenforceable or invalid, such holding shall not invalidate or render unenforceable any other provision hereof. No failure or delay by a party hereto to insist on the strict performance of any term of this Agreement, or to exercise any right or remedy consequent to a breach thereof, shall constitute a waiver of any breach or any subsequent breach of such term.

16. All other prior discussions, communications and representations concerning the subject matter of this Agreement are superseded by the terms of this Agreement, and except as specifically provided herein, this Agreement constitutes the entire agreement with respect to the subject matter hereof.

17. Consultant agrees to reimburse UCF for any and all expenses incurred by UCF due to the intentional, negligent or wrongful acts or omissions of Consultant or mistakes made by Consultant in performing the services hereunder. If any

corrective action is required due to Consultant's acts or omissions, Consultant shall reimburse Client for any and all costs associated with such corrective action.

18. Anything specifically created for Client by Consultant hereunder shall be considered specially ordered for UCF as a "work made for hire," or, if for any reason held not to be a "work for hire," Consultant hereby assigns all of its right, title and interest therein to UCF. If anything not specifically created for Client is used in the performance of Consultant's services hereunder, Consultant retains ownership of said materials and hereby grants Client a perpetual, fully paid-up, non-exclusive license to use such materials, make copies thereof and distribute these materials for Client's purposes, indefinitely.

19. Consultant agrees to keep and maintain, separate and independent records, in accordance with generally accepted accounting principles and as long as required by law, devoted exclusively to its activities, duties and obligations pursuant to this Agreement. Such records (including books, ledgers, journals, and accounts) shall contain all entries reflecting the business operations under this Agreement. UCF or its authorized agent shall have the right to audit and inspect such records from time to time during the term of this Agreement, upon reasonable notice to Consultant and during regular business hours.

20. To the extent that Consultant qualifies as a provider pursuant to the National Child Protection Act of 1993, as amended, or as a service provider in accordance with applicable Florida law/Statutes, who has direct contact with children receiving services or with adults who are developmentally disabled receiving services or who qualifies as a direct service provider to the elderly (as defined by Florida law/Statutes), Consultant hereby guarantees that Consultant and/or anyone acting on Consultant's behalf (including, but not limited to Consultant's employees, agents, subcontractors, etc.) has undergone/passed a Level II (two) background check with the State of Florida, as provided under Chapter 435 and hereby certifies that none of Consultant's employees, agents, subcontractors and/or anyone else acting on Consultant's behalf, has any disqualifying offenses, including, but not limited to those listed in Section 435.04, Florida Statutes.

21. Consultant hereby expressly agrees to instruct its employees, agents, subcontractors and/or anyone else acting on Consultant's behalf, to report to the University of Central Florida police any instance of child abuse, abandonment, or neglect witnessed or learned about that occurred on University of Central Florida property or during an event or function sponsored by the University of Central Florida.

22. This Agreement shall be governed by the laws of the State of Florida. Venue for any action arising hereunder shall be in Orange County, Florida.

In Witness Whereof, the parties signify their agreement by the signatures affixed below.

University of Central Florida Board of Trustees

Consultant

Elizabeth Adele Klonoff

Eugene Jerebitski

By: ~~Signed: Tuesday, June 16, 2020~~

By: ~~Signed: Wednesday, June 10, 2020~~

Print Name: Dr. Elizabeth Klonoff

Print Name:

Title: Vice President, Research

Title:

Date:

Date:

Attachment A

Statement of Work

ARES will provide a Senior Research Scientist/Manager with knowledge of the SRI Space and Atmospheric Science capabilities and personnel. ARES has selected Dr. John Kelly, an acknowledged expert in Atmospheric Science Incoherent Scatter Radar, Optical Instrumentation including the use of Lidar and the management of large groups of scientists performing technical activities in the field to include Plasma Physics, Electrical Engineering, Atmospheric Modeling and data collection and analysis. The position requires an advanced degree, PhD or equivalent in Electrical Engineering or Physics.

Dr. Kelly will help develop a comprehensive plan that integrates the SRI GeoSpace Team with the FSI and College of Sciences. Dr. Kelly will work closely with the Director, Florida Space Institute and the VP, Office of Research and Commercialization, Dean College of Graduate Studies. Should Client retain a legal or business consultant to review such an integration of operations in the context of legal and regulatory requirements, Dr. Kelly will work cooperatively with that consultant.

Dr. Kelly will assist in the development of a capture and transition strategy/plan that will facilitate the orderly transition of the GeoSpace team from SRI to UCF/FSI as a Center for Geospace Studies (CGS). This plan will include developing an organization structure and job descriptions for the needed staff. The plan will address current and future facility needs including office space and laboratory space. The selected individual will develop an organization chart that includes the assimilation of the Arecibo SAS group.

A plan that delineates both current and future collaborations and funding opportunities will be developed for both the current year and future (5) years. The plan will also include the needed effort to effectively transfer current grants to UCF.

The organization of the Work Plan, is as follows:

- i) High level management
 - a. Establish and execute COVID-19 policy consistent with Federal, Florida, and Calif. Policies
 - b. Learn the UCF (FSI) system, procedures, policies, goals.
 - c. Blend the CGS vision with UCF/FSI vision-a working document
 - d. Maintain collaborative relationship with SRI
 - e. Study existing higher education business models that operate within California/Silicon Valley to include a complete discussion of how they work with the California Department of Education
 - F. Study the business model of Independent Research Institutes eg SETI, Breakthrough, others to understand their business model and interaction with the California Department of Education.
 - G. Collaborate with any other consultants that are involved with the establishment of a California entity of the University of Central Florida Research Foundation (UCFRF)
- ii) Integration of CGS staff into FSI/UCF
 - i. Investigate employment mechanisms and whether
 - 1. Pls need UCF status for grant transfers
 - 2. Need UCF employee number for faculty appointments
 - ii. Specific staff members needing part time positions now
 - 1. Projects that need University rates and support asap
 - a. DASI (Kendall and Bhatt)
 - b. Transfer NSF grants - DASI and MANGO
 - 2. SRI CGS staff status – reduced hours
 - iii. Determine timeline for others

- 1. Arrange CGS staff visits to Orlando for introductions, seminars, etc.
- iv. Develop plan for UCF infrastructure support
 - 1. Computers
 - 2. Software
 - 3. Electronic lab
- v. Negotiate office space as needed over phased period
- iii) Science and Academic Program
 - i. Identify tasks for CGS staff.
 - 1. Transfer NSF grants to UCF
 - 2. Transfer other awards as appropriate (SRI concurrence)
 - 3. Identify new proposal opportunities (NSF, NASA, other)
 - 4. Submit proposals
 - 5. Determine approach to team with SRI for certain non-academic projects
- iv) Immediate Opportunities
 - i. Step into the AO management
 - 1. SAS staff
 - 2. Specific CGS staff (TvE, Bhatt, Jorgensen)
 - 3. Large Facility issues with NSF
 - ii. Identify CGS projects that will promote collaboration between UCF Physics, Electrical Engineering and Computer Science Departments.
- v) Define the roles and responsibilities of staff to be consistent with UCF/FSI guidelines and expectations
 - a. Staff desires and obligations
 - 1. Management
 - 2. Faculty
 - 3. Research
 - 4. Joint
 - 5. Support

Timeline and Deliverables

Completion of the work will be documented in up to five reports with target completion dates*:

- 1. COVID-19 work policy – 6/1/2020
- 2. CGS/UCF/FSI vision document - 06/08/2020
- 3. CGS staff employment plan,- 08/15/2020
- 4. Staff transfer schedule - 10/11/2020
- 5. Grant and Cooperative Agreement transfer schedule - 10/18/2020

*Due to uncertainties associated with the on-going Covid-19 pandemic, post-Covid-19 recovery arrangements (both National and State-specific), and inevitable impacts on decision making, filling of vacant posts, etc., these target dates may be delayed

Attachment B

Pricing

| Labor Category Description | Role | Proposed Hourly Rate | Number of Hours | Total |
|-----------------------------------|---|---------------------------------|----------------------------|---------------------|
| Sr. Subject Matter Expert (8-2) | Principal Investigator | \$218.00 | 1,008 | \$219,744.00 |
| Sr. Consultant (7-1) | Provide oversight and contract/program management support | \$159.28 | 24 | \$3,822.72 |
| | | | 1,032 | \$223,566.72 |

**UCF BOARD OF TRUSTEES
EDUCATIONAL PROGRAMS COMMITTEE
August 12, 2020**

Title: Academic Program Development Process

Background: Updating the Education Programs Committee on the processes involved in developing a new program proposal before it reaches the more formal process previously covered at the February 6, 2020 committee meeting.

Issues to be Considered:

N/A

Alternatives to Decision:

Information only

Fiscal Impact and Source of Funding:

N/A

Recommended Action:

N/A

Authority for Board of Trustees Action:

N/A

Contract Reviewed/Approved by General Counsel:

N/A

Committee Chair or Chair of the Board approval:

Chair Kenneth Bradley has approved adding this item to the agenda.

Submitted and Facilitated by: Timothy Letzring
Senior Associate Provost for Academic Affairs

Supporting Documentation: Attachment A: Degree Planning Process

ACADEMIC PROGRAM DEVELOPMENT PLANNING PROCESS

The planning process for a new degree program begins long before it starts the formal process outlined at the February 6, 2020 EPC meeting. Ideas for new degree programs emerge from a variety of avenues. These can include new faculty hires that bring the idea or recognition of the need with them. Industry leaders and advisory groups can bring the idea to a dean, department chair, or faculty member, which starts the discussion. Even before the process outlined below, informal conversations take place, meetings to determine levels of support, interdisciplinary opportunities are explored, and some level of affirmation is provided that the idea has merit to even begin the pre-proposal process. This does not mean the program will reach the formal process. It may not move forward because the program does not meet the current strategic goals of the institution, or externalities prevent the program from moving forward. The institution may discover it lacks the financial ability to move forward. Each program has its own unique expenses based on cost of faculty, equipment, and space required. Such costs are balanced against the need by the economy for this degree, the demand by students to enroll in this degree, and the potential for other added value in the degree itself. Universities in general compete for four commodities – students, faculty, funding, and prestige. A new degree program can be an effective competitor in all four areas.

Sometimes there is a recognition that the department or school has developed an incredible faculty in this area and the program builds itself. The BS in Microbiology and BS in Molecular and Cellular Biology approved last year fit this category well. As the Burnett School of Biomedical Sciences was growing, there was recognition that in building the biomedical sciences faculty, they had also developed tremendous expertise in these two sub-specialties. These programs started tracks within the Biomedical Sciences major and are now in process to becoming stand alone degree programs.

Another recent example of program development is found in Bachelor of Science in Data Science proposal. This degree program was approved by EPC on April 9th, 2020 and the full Board of Trustees on April 23, 2020. The outline below shows those behind the scenes steps that are taken, and it took 29 months between that first conversation and the program receiving formal approval by the Board of Trustees. Even between these meetings, informal conversations are taking place. Course development also plays a key role in program development. As the faculty meet they outline the various student learning outcomes needed by the program and then check that against course offerings to identify the gaps. New courses are then created, if needed, to fill those gaps.

Planning Process

| Date | Participants | Planning Activity |
|------------|--|--|
| 10/31/2017 | Daniel Eilen, Ivan Garibay, Gary Leavens, Shunpu Zhang | Initiated the idea to develop the joint degree program in Data Science and decided that Statistics will be the home department of the degree program |
| 05/01/2018 | Xin Li, Gary Leavens, Shunpu Zhang | Discussed the formation of the proposal committee |
| 09/20/2018 | Joseph Brennon, Dan Eilen, Gary Leavens, Shunpu Zhang | 1st meeting of the proposal committee. Discussed the timeline and the delegation of duties for completing the proposal for the joint degree program in Data Sciences. Joseph Brennon, Dan Eilen, Gary Leavens, Shunpu Zhang |
| 09/24/2018 | Joseph Brennon, Dan Eilen, Gary Leavens, Shunpu Zhang | 2 nd meeting of the proposal committee discussed the curriculum and the Need and Demand section. |
| 10/08/2018 | Joseph Brennan, Dan Eilen, Gary Leavens, Sandy Avila (library), Buenaventura Basco (library), Shunpu Zhang | 3 rd meeting of the proposal committee, discussed and reviewed the curriculum, Sections I and IV, and library resources |

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| 10/22/2018 | Joseph Brennan, Gary Leavens, Shunpu Zhang | 4 th meeting of the proposal committee discussed the curriculum and decided to form the Advisory board for the BS program, the need to get letters of support from local companies (Rosen, Hilton, Publix etc.), and financial support from the university/college for the B.S. program. |
| 10/29/2018 | Joseph Brennan, Gary Leavens, Dan Eilen, Luis Rabelo, Shunpu Zhang | 5 th meeting of the proposal committee, discussed the curriculum and what resources (access to cloud storage, computing, etc.) should be available to the students in the B.S. program, also discussed the potential collaboration with Valencia College |
| 10/30/2018 | <p>Valencia College East Stacey Johnson, Campus President Michelle Foster, Dean for Academic Affairs Carin Gordon, Dean of Business/IT Nasser Hedayat, AVP for Career and Workforce Education Keri Siler, Dean of Math Sidra Van De Car, Math Professor Dave Brunick, Professor Computer Programming/Analysis</p> <p>UCF Jeff Jones, UCF Connect, Vice Provost Pam Cavanaugh, UCF Connect, Associate Vice Provost Harrison Oonge, College of Undergraduate Studies Teresa Dorman, College of Sciences Shunpu Zhang, Professor, Statistics and Data Science David Nickerson, Professor, Statistics and Data Science Xin Li, Professor, Mathematics Joseph Brennan, Professor, Mathematics Gary Leavens, Professor, Computer Science Dan Eilen, Associate Director, Industrial Engineering and Management Systems</p> | VC/UCF Data Sciences Collaboration Discussion |
| 11/06/2018 | Shunpu Zhang, Joe Brennan, Dan Eilen, Dave Brunick, Sidra Van De Car, and Alison Hammack | 6 th meeting of the proposal committee (a joint meeting with the Valencia counterparts), proposed and discussed an AA degree in Data Science for Valencia. |
| 11/19/2018 | Gary Leavens, Dan Eilen, Luis Rabelo, Shunpu Zhang | 7 th meeting of the proposal committee |
| 11/28/2018 | Gary Leavens, Joseph Brennan, Dan Eilen, Luis Rabelo, Shunpu Zhang | 8 th meeting of the proposal committee |
| 12/10/2018 | Gary Leavens, Dan Eilen, Shunpu Zhang | 9 th meeting of the proposal committee |
| 12/17/2018 | Gary Leavens, Joseph Brennon, Shunpu Zhang | 10 th meeting of the proposal committee |
| 01/07/2019 | Gary Leavens, Joseph Brennon, Dan Eileen, Luis Rabelo, Shunpu Zhang | 11 th meeting of the proposal committee |
| 01/14/2019 | Gary Leavens, Dan Eileen, Luis Rabelo, Shunpu Zhang | 12 th meeting of the proposal committee |
| 01/24/2019 | Gary Leavens, Joseph Brennon, Shunpu Zhang | 13 th meeting of the proposal committee |
| 02/04/2019 | Gary Leavens, Joseph Brennon, Shunpu Zhang | 14 th meeting of the proposal committee. Email sent to Florida Poly for a letter of support |
| 02/28/2019 | Gary Leavens, Xin Li, Michael Johnson, Michael Georgopoulos, Shunpu Zhang | 15 th meeting of the proposal committee Meeting to discuss resources needed for the B.S. program |

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| 03/26/2019 | Gary Leavens, Joseph Brennan, Dan Eilen, Shunpu Zhang | 16 th meeting of the proposal committee Meeting, discussed the curriculum. |
| 04/05/2019 | Gary Leavens, Luis Rabela, Dan Eilen, Shunpu Zhang | 16 th meeting of the proposal committee Meeting |
| 04/17/2019 | Gary Leavens, Joseph Brennan, Shunpu Zhang | 17 th meeting of the proposal committee Meeting |
| 05/03/2019 | Joseph Brennan, Luis Rabela, Dan Eilen, Shunpu Zhang | 18 th meeting of the proposal committee Meeting |
| 07/31/2019 | Joseph Brennan, Gary Leavens, Dan Eilen, Shunpu Zhang | 19 th meeting of the proposal committee Meeting |
| 08/09/2019 | Teresa Dorman, Joseph Brennan, Gary Leavens, Dan Eilen, Shunpu Zhang | 20 th meeting of the proposal committee Meeting with Dr. Teresa Dorman |
| 08/13/2019 | Joseph Brennan, Gary Leavens, Dan Eilen, Shunpu Zhang | 21 st meeting of the proposal committee Meeting |
| 08/19/2019 | Joseph Brennan, Gary Leavens, Shunpu Zhang | 22 nd meeting of the proposal committee Meeting |
| 08/26/2019 | Joseph Brennan, Luis Rabelo, Dan Eilen, Gary Leavens, Shunpu Zhang | 23 rd meeting of the proposal committee Meeting |
| 09/17/2019 | Joseph Brennan, Luis Rabelo, Dan Eilen, Gary Leavens, Shunpu Zhang | 24 th meeting of the proposal committee Meeting |
| 09/20/2019 | Joseph Brennan, Luis Rabelo, Gary Leavens, Shunpu Zhang | 25 th meeting of the proposal committee Meeting |
| 10/02/2019 | Joseph Brennan, Luis Rabelo, Gary Leavens, Shunpu Zhang | 26 th meeting of the proposal committee Meeting |
| 10/03/2019 | Michael Johnson, Michael Georgiopolous, Joseph Brennan, Dan Eilen, Shunpu Zhang | 27 th meeting of the proposal committee Meeting |
| 10/04/2019 | Joseph Brennan, Luis Rabelo, Mark Henrich, Shunpu Zhang | 28 th meeting of the proposal committee Meeting and Dr. Dorman |
| 10/09/2019 | Joseph Brennan, Luis Rabelo, Gary Leavens, Shunpu Zhang, Teresa Dorman | 29 th meeting of the proposal committee Meeting |
| 10/09/2019 | Joseph Brennan, Luis Rabelo, Shunpu Zhang | 30 th meeting of the proposal committee Meeting |
| 10/10/2019 | Joseph Brennan, Luis Rabelo, Mark Henrich, Shunpu Zhang | 31 st meeting of the proposal committee Meeting |
| 10/11/2019 | Joseph Brennan, Luis Rabelo, Daniel Eilen, Shunpu Zhang | 32 nd meeting of the proposal committee Meeting |

Events Leading to Implementation

| Date | Implementation Activity |
|------------|---|
| 1/08/2018 | Pre-proposal submitted to Dr. Elizabeth Dooley for approval |
| 04/17/2018 | Pre-proposal was approved by CAVP |
| 05/30/2018 | A request was sent to Educational Advisory Board (EAB) for market analyses of the proposed B.S. program in Data Science. |
| 07/27/2018 | EAB Market Research (Data Sciences) was received. |
| 09/20/2018 | Discussed the timeline and the delegation of duties for completing the proposal for the joint degree program in Data Sciences. |
| 09/24/2018 | Discussed the curriculum and the Need and Demand section. |
| 10/08/2018 | Discussed and reviewed the curriculum, Sections I and IV, and library resources |
| 10/22/2018 | Discussed the curriculum and decided to form the Advisory board for the BS program, the need to get letters of support from local companies (Rosen, Hilton, Publix etc.), and financial support from the university/college for the B.S. program. |
| 10/29/2018 | Discussed the curriculum and what resources (access to cloud storage, computing, etc.) should be available to the students in the B.S. program, also discussed the potential collaboration with Valencia College |
| 10/30/2018 | VC/UCF Data Sciences Collaboration discussed the intention to develop an AA degree in Data Science in Valencia, which will feed into the proposed B.S. degree in Data Science. |

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| 11/06/2018 | A joint meeting with the Valencia counterparts, proposed and discussed an AA degree in Data Science for Valencia. |
| 11/19/2018 | Discussed the remaining (unfinished) part of the proposal: <ul style="list-style-type: none"> • program review results from CS, IEMS and Math. • the information on Faculty Participation • the survey results from CS and Math • Section VIII (curriculum) • Section V (access/articulation) and for soliciting letters of support • Draft sections X (non-faculty resources) • Draft Table 4 (faculty participation), • Draft Table 2 and 3 (budget) |
| 11/28/2018 | Discussed the remaining (unfinished) part of the proposal: <ul style="list-style-type: none"> • program review results from CS, IEMS and Math. • the information on Faculty Participation • the survey results from CS and Math • Section VIII (curriculum) • Section V (access/articulation) and for soliciting letters of support • Draft sections X (non-faculty resources) • Draft Table 4 (faculty participation) • Draft sections IX (faculty resources) |
| 12/10/2018 | Discussed changes in the curriculum and unfinished parts of the proposal |
| 12/17/2018 | Discussed the curriculum, reorganized the electives to five groups by incorporating the ESI courses to other groups. |
| 01/07/2019 | Discussed the remaining items which need to be finished in the proposal. |
| 01/14/2019 | Discussed the remaining items which need to be finished in the proposal. |
| 01/24/2019 | Discussed the remaining items which need to be finished in the proposal. |
| 02/04/2019 | Discussed the remaining items which need to be finished in the proposal. |
| 02/28/2019 | Discussed resources needed for the B.S. program. Will use the existing resources in the beginning, more resources will be provided if the student numbers grow. Condense the elective groups to six courses. |
| 03/26/2019 | Joe presented to the committee the revised curriculum by considering the deans' comments. The committee had some discussion of the revised curriculum. |
| 04/05/2019 | The committee discussed the revised curriculum and made the following recommendations/changes in Advanced Core. |
| 04/17/2019 | The committee discussed the revised curriculum and made the following recommendations/changes in Advanced Core: Removed COP 3223 Introduction to Programming in C. |
| 05/03/2019 | The committee discussed the revised curriculum and the curriculum path. The committee also discussed to form a committee to develop a GEP course in Data Science for UCF. The committee will consist of one member from each department from the following departments: CS, IEMS, MATH, STAT. |
| 07/31/2019 | The committee discussed the revised curriculum and the curriculum path, budget and tables. Joe provided the committee the CPP document. |
| 08/09/2019 | The committee met with Dr. Teresa Dorman and discussed the prefix of the new courses and several issues remained in the proposal. |
| 08/13/2019 | The committee discussed the curriculum and the curriculum path, articulation agreement and CPP, found a mismatch between the curriculum and the catalog. |
| 08/19/2019 | The committee discussed the need to submit course action plans/request/syllabi, worked on Tables 1-4 and concluded that the budget should include the cost for the summer support for the program director and the cost of a printer and office supplies. The committee also identified the need to contact some other Floridian universities (FIU, AMU, USF, UF, FSU) for letters of support. |
| 08/26/2019 | The committee discussed the course offerings from Year 1 to 5. |
| 09/17/2019 | The committee discussed the proposal. The following is a to-do-list: Joe: Upload the syllabi of all new courses in the google drive, revise and complete Table 4, complete part D of Section IX. Luis: Revise and complete Table 4. Gary: Upload the CS APR to the google drive. Dan: Add |

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| | Advisory board survey and the narrative to the proposal. Shunpu: Fill the course planning template. |
| 09/20/2019 | The committee discussed the proposal. The following is a to-do-list: Joe: Letter of support from Deloitte and New college if possible. Section VII: A short paragraph. Section IX: Faculty participation. Luis: Shorten Section VII, IX. Shunpu: Inquire Teresa regarding the prefix and the space for the computer lab. Organize a budget meeting with the deans. Gary: Upload the CS APR to the google drive. Dan: Add Advisory board survey and the narrative to the proposal. |
| 10/02/2019 | The committee discussed and answered Teresa's comments in the proposal. The committee also worked out the requirements for a minor in Data Science (MAS 3105, COP 3502, STAT 4163, STA 4164, Data Science I, II, 19 credit hours total). |
| 10/03/2019 | The committee met with Dr. Michael Johnson and Dr. Michael Georgiopolous to discuss the budget. |
| 10/04/2019 | Dr. Dorman convened a meeting of the proposal committee and Dr. Mark Henrich (CS) to discuss the two deans (Dr. Michael Johnson and Dr. Michael Georgiopolous)'s comments on the budget. |
| 10/04/2019 | The committee discussed the outcome from the meeting with the deans on Oct. 03 and answered Teresa's comments in the proposal. Joe proposed course numbers for Stat foundations I (4308) and II (4309). |
| 10/09/2019 | Dr. Dorman convened a meeting of the proposal committee and Dr. Mark Henrich (CS) to discuss the two deans (Dr. Michael Johnson and Dr. Michael Georgiopolous)'s comments on the budget. |
| 10/09/2019 | The committee discussed Teresa's comments from another meeting in the morning of Oct 09. Worked on Table 4. |
| 10/10/2019 | The committee discussed Teresa's comments from another meeting in the morning of Oct 09. Continued working on Tables 2 and 4. |
| 10/11/2019 | The committee discussed the budget, added the cost for purchasing 10 workstations each with 4 GPUs. |