UNIVERSITY OF CENTRAL FLORIDA

Board of Trustees Meeting
Educational Programs Committee
President's Boardroom, Millican Hall, 3rd floor
February 6, 2020, 2:00 – 4:00 p.m.
Conference call in phone number 800-442-5794, passcode 463796

REVISED AGENDA

I. CALL TO ORDER	Kenneth Bradley *Chair, Educational Programs Committee*
II. ROLL CALL	Gwen Ransom *Executive Assistant, Office of the Provost*
Welcome to new Committee members	Kenneth Bradley
III. MEETING MINUTES • Approval of November 12, 2019 Educational Programs Committee meeting minutes	Kenneth Bradley
IV. NEW BUSINESS	
• Tenure with Hire (EPC-1)	Michael D. Johnson *Interim Provost and Vice President for Academic Affairs*
• Academic Program Development Process (INFO-1)	Timothy Letzring *Senior Associate Provost for Academic Affairs*
• New Degree Program Proposal Master of Science in Financial Technology (EPC-2)	Timothy Letzring
• New Degree Program Proposal Master of Science in Computer Vision (EPC-3)	Timothy Letzring
• New Degree Program Proposal Ph.D. in Sustainable Coastal Systems (EPC-4)	Timothy Letzring

- Provost Update: (INFO-2) — Michael D. Johnson
- 2020 BOT Educational Programs Committee Meeting Dates (INFO-3) — Kenneth Bradley

V. OTHER BUSINESS

VI. CLOSING COMMENTS

UNIVERSITY OF CENTRAL FLORIDA

Board of Trustees
Educational Programs Committee
November 12, 2019
President's Boardroom, Millican Hall

MINUTES

CALL TO ORDER

Trustee Robert Garvy, chair of the Educational Programs Committee, called the meeting to order at 2:03 p.m. via teleconference. Committee members Vice Chair Kenneth Bradley, and Trustee William Self were present. Trustee John Lord and Trustee Kyler Gray were did not attend.

MEETING MINUTES

The September 18, 2019, meeting minutes were submitted for approval, motion to approve was made by Trustee Bradley, and Trustee Self seconded. The committee unanimously approved the minutes as submitted

NEW BUSINESS

2021-2022 Proposed Academic Year Calendar (EPC-1)

Dr. DeLaine Priest submitted the 2021-22 Proposed Academic Year Calendar, which is developed by the UCF Academic Calendar Committee, a Faculty Senate Joint Committee with faculty, administration and student representation. Motion to approve was made by Trustee Bradley, and Trustee Self seconded. The committee unanimously approved the 2021-22 Proposed Academic Year Calendar.

New Degree Programs – Bachelor of Science in Molecular Cellular Biology and Bachelor of Science in Molecular Microbiology (EPC-2)

These two new degree programs were presented by Dr. Timothy Letzring for approval. Both programs are College of Medicine STEM programs, and are intended to create more focused, stand-alone degree programs, drawing primarily from existing Biomedical Sciences enrollment. These new degree programs will enable students to gain a depth of knowledge not currently offered at UCF. Motion to approve was made by Trustee Bradley, and Trustee Garvy seconded. The committee unanimously approved both new degree programs.

Conferral of Degrees (EPC-3)

Provost Elizabeth Dooley requested approval for conferral of degrees at Fall 2019 commencement ceremonies. Trustee Bradley moved to approve with acclamation, and Trustee Self seconded. The committee unanimously approved Fall 2019 Conferral of Degrees.

Tenure with Hire (EPC-4)
Tenure with Hire for one newly hired faculty member, who has been deemed eligible for tenure based on UCF requirements was submitted for approval by Provost Dooley. Department faculty and the university administrative officers have approved granting tenure to this faculty member. Motion to approve was made by Trustee Bradley, and Trustee Self seconded. The committee unanimously approved Tenure with Hire.

Resubmission of New Degree Program – Master of Science in Systems Engineering (EPC-5)
The resubmission of a previously approved new degree program, Master of Science in Systems Engineering. This program was previously approved by Board of Trustees in March 2019 and submitted to the Board of Governors (BOG) for staff approval. BOG staff requested a second approval based on lowered enrollment calculations. Motion to approve was made by Trustee Self, and Trustee Bradley seconded. The committee unanimously approved the resubmitted Master of Science in Systems Engineering.

New Grant Activity (INFO-1)
Dr. Elizabeth Klonoff presented information on new grant activity at UCF, including data on the total awards, award submissions and research expenditures.

Provost's Update – Academic Spotlight:
Provost Dooley presented an update on UCF's Academic Enterprise, including the 2019 Degree Completion Award from APLU, student retention and graduation rates. Dooley also provided an in-depth update of the ongoing academic alignment.

Digital Learning Course Redesign Initiative (INFO-2) included updated information on an item that was originally presented in Fall 2017. The update on digital redesigned courses included successful achievements in major metrics, and the number of students currently enrolled in redesign courses.

ADJOURNMENT

Chair Garvy adjourned the Educational Programs Committee meeting on November 12, 2019 at 3:28 p.m.

Reviewed by: _____ _____
Kenneth Bradley — Date
Chair, Educational Programs Committee

Submitted by: _____ _____
Janet Owen — Date
Associate Corporate Secretary

ITEM: EPC-1

UCF BOARD OF TRUSTEES
EDUCATIONAL PROGRAMS COMMITTEE
February 6, 2020

Title: Tenure with Hire

Background:
New faculty members are hired each year with tenure. Normally, such faculty members have earned tenure at their previous institution and meet UCF's requirements for tenure. For others, tenure is part of the hiring package when senior faculty members are hired for administrative positions. Department faculty members and the university's administrative officers have approved granting tenure to these faculty members.

The recommendation of a faculty member for tenure shall signify that the president and the Board of Trustees believe that the employee will continue to make significant and sustained professional contributions to the university and the academic community.

The primary purpose of tenure is to protect academic freedom. The award of tenure shall provide annual reappointment until voluntary resignation, retirement, removal for just cause, or layoff.

Issues to be Considered:
Please refer to Attachment A - Tenure with Hire Justification.

Alternatives to Decision:
N/A

Fiscal Impact and Source of Funding:
Faculty are considered employees of the university and like other employees, compensation is negotiated during the hiring process. Recommendations for tenure are considered independently from compensation. Faculty who are awarded tenure will have annual reappointment until voluntary resignation, retirement, removal for just cause, or layoff.

Recommended Action:
The department, college and Provost support the recommendations for tenure with hire.

Authority for Board of Trustees Action:
UCF 3.015(4)(a)5 – Promotion and Tenure of Tenured and Tenure-earning Faculty

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:
Jana L. Jasinski
Vice Provost for Faculty Excellence and Pegasus Professor of Sociology

Supporting Documentation:
Attachment A: Tenure with Hire Justification

Facilitator:
Michael D. Johnson
Interim Provost and Vice President for Academic Affairs

Attachment A

Tenure with Hire Justification
Board of Trustees
Educational Programs Committee
February 6, 2020

Carolina Cruz-Neira, Professor
College of Engineering and Computer Science, Department of Computer Science

Dr. Carolina Cruz-Neira received her Ph.D. in systems engineering from Universidad Metropolitana, Venezuela. She comes to UCF from the University of Arkansas at Little Rock, where she was a tenured professor of information science. At UCF, she will serve as the Agere Chair in the Department of Computer Science. While at University of Arkansas, Dr. Cruz-Neira held the position of Donaghey Distinguished Professor in Information Science, Executive Director of the Emerging Analytics Center, and served as Interim Chair of Computer Science. She is a member of the National Academy of Engineering (since 2018), has been inducted as an ACM *"Computer Graphics Pioneer,"* is a recipient of the IEEE VGTC Virtual Reality Technical Achievement Award, and the Distinguished Career Award from the International Digital Media & Arts Society. Her research is in Virtual Reality (VR) and Augmented Reality (AR). Dr. Cruz-Neira has numerous peer reviewed journal articles, presented at regional, national, and international conferences, and keynote addresses. She has extensive teaching experience at the undergraduate and graduate levels, having taught and developed courses in introduction to augmented reality, fundamentals of virtual reality, and mobile application development. Dr. Cruz-Neira serves as ***Frontiers in Virtual Reality Journal*** chief editor for VR and Industry, among many other service activities in the profession, college, and university. The Department of Computer Science and College of Engineering and Computer Science support the recommendation for tenure with hire.

Dirk Reiners, Associate Professor
College of Engineering and Computer Science, Department of Computer Science

Dr. Dirk Reiners received his Ph.D. in computer science from Technical University Darmstadt, Germany. He comes to UCF from the University of Arkansas at Little Rock, where he was a tenured associate professor of information science. While at University of Arkansas, Dr. Reiners held the position of Chief Scientist of the Emerging Analytics Center. He is the chief technology officer of the startup CG Heroes, LLC. Dr. Reiners is the recipient of the Sikorsky Entrepreneurial Challenge and won best paper awards at IEEE Virtual Reality (VR) and I/ITSEC conferences. He has received funding from NSF (National Science Foundation), Fraunhofer, and BMBF (Federal Ministry of Education and Research, Germany). Dr. Reiners has numerous peer reviewed journal articles, conference proceedings, and book chapters. Dr. Reiners has extensive teaching experience at the undergraduate and graduate levels, having taught and developed courses in augmented reality, introduction to object-oriented programming, and information visualization. He has graduated multiple doctoral and masters students. Dr. Reiners has served as IEEE VR chair for workshops, ICAT-EGVE program chair, and ***Computers & Graphics*** associate editor and reviewer, among many other service activities in the profession, college, and university. The Department of Computer Science and College of Engineering and Computer Science support the recommendation for tenure with hire.

ITEM: INFO-1

UCF BOARD OF TRUSTEES
EDUCATIONAL PROGRAMS COMMITTEE
February 6, 2020

Title: Academic Program Development Process

Background:
Updating the Educational Programs Committee on the internal and external processes involved in approving new academic programs, and where the committee and full Board of Trustees participate in this process.

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: Process Overview for Academic Program Development

UNIVERSITY OF CENTRAL FLORIDA

New Degree Program Process

Pre-Proposal Process

- ☐ Pre-Proposal Drafted
- ☐ Signatures Obtained at program, department, and college level
- ☐ Submission College of Graduate Studies (CGS) for review and dean signature (graduate)
- ☐ Forward to Academic Affairs (AA) for review and provost signature
- ☐ AA adds to next Council of Academic Vice Presidents (CAVP) meeting agenda through Board of Governors staff (BOG staff)
- ☐ CAVP review
- ☐ CAVP Comments Addressed (if applicable)

Full Proposal Process

- ☐ Orientation with program authors (CGS & AA - graduate; AA - undergraduate)
- ☐ Full proposal drafted
- ☐ Draft(s) reviewed by CGS and iterative revisions carried out (graduate)
- ☐ Draft(s) reviewed by AA and iterative revisions carried out (undergraduate)
- ☐ New program and related courses entered into academic approval system
- ☐ Graduate Council Curriculum Committee (GCCC) review of new courses
- ☐ Undergraduate Course Review Committee (UCRC) review of new program courses
- ☐ Undergraduate Program Curriculum Committee (UPCC) review of new program
- ☐ Final full proposal submitted to AA (undergraduate)
- ☐ Final full proposal submitted to CGS (graduate)
- ☐ CGS final review (graduate)
- ☐ Graduate Council Program Review Committee (GCPRC) reviews full proposal
- ☐ GCPRC completion of program analysis worksheet
- ☐ CGS submission to AA for review (graduate)
- ☐ AA completes program analysis worksheet (undergraduate)
- ☐ AA approves proposals for Board of Trustees (BOT) review and approval
- ☐ AA includes proposals in upcoming BOT Education Programs Committee (EPC) meeting
- ☐ If Special Tuition, submission and review by BOT Finance and Facilities Committee
- ☐ EPC approves and, if necessary, FFC approves
- ☐ BOT Approval
- ☐ Submission to BOG staff for review
- ☐ Response to BOG staff questions
- ☐ BOG staff approves bachelor's and master's programs except
  - Bachelors seeking >120 credit hours require full BOG approval
  - Limited access programs
- ☐ BOG approve special tuition following regulation 8.002
- ☐ BOG staff approves for inclusion in next BOG meeting –
  - bachelor's program seeking > 120 credit hours,
  - limited access
  - all doctoral programs, and
- ☐ BOG approval

DRAFT

ITEM: EPC-2

UCF BOARD OF TRUSTEES
EDUCATIONAL PROGRAMS COMMITTEE
February 6, 2020

Title: Approval of New Degree Program – Master of Science in FinTech

Background:
All graduate degree programs utilizing a new CIP Code are required to be reviewed and approved by the Board of Trustees.

The College of Business (CBA) and the College of Engineering and Computer Science (CECS) are proposing a new (joint) degree program for **CIP Code 30.7104 (Financial Analytics)**.

Issues to be Considered:

- **Program Description**:
  FinTech or Financial Technology, refers to the application of technological innovation in the financial services industry. Recent developments in technology and computer science have brought about significant changes in many sectors of the financial services industry, enabling individuals and businesses to use products and services at a lower cost, with greater ease and convenience.

- **Benefits**:
  The ***MS in FinTech*** program will directly support the SUS goal of "Productivity" in STEM disciplines. The SUS strategic plan for 2012-2015 (page 12) has as a 2025 goal for Florida to "*increase the educational attainment levels of its citizens and the state universities must respond by awarding more degrees in specific high demand programs, particularly the STEM disciplines."* The ***MS in FinTech*** program will contribute to the awarding of Master's degrees produced at UCF in the high-demand STEM areas of technology and analytics within the context of the financial services industry. As such, it also contributes to the SUS goal to: "Increase Community and Business Workforce" (page 13). This workforce training aspect of the program also contributes to UCF's goal of becoming America's leading partnership university. Several aspects of the degree program, in particular the final capstone project, will connect with the community and industry.

  The program will support the SUS "Strategic Priorities for a Knowledge Economy" (pages 12-13), goal of "Increasing Collaboration and External Support for Research Activity," as it will help UCF's graduate programs in the CBA and the CECS to increase their ability to engage with companies who will consider supporting faculty teaching in the program with grants and contracts. This will happen both from students taking jobs in industry and becoming potential future sponsors of the faculty teaching in this program, as well as from student projects, conducted in the capstone course. Such collaborations with industry will also contribute to meeting the goal: "Increase Research and Commercialization Activity." Such partnerships with industry are also consistent with UCF's goals of: "achieving international prominence in key programs of graduate study and research" and "becoming America's leading Partnership University."

- **Career/Workforce Needs**:
  According to the BLS (2020), the fastest growing occupations (2018 projected to 2028) include information security analysts, statisticians, software developers/ applications, mathematicians, and operations research analysts. Job demand for FinTech is growing (with 7,439 FinTech jobs listed on LinkedIn as of 1/10/2020). FinTech jobs (which combine skills in key software and finance areas) have a high median annual income of $130,000 vs. $105,000 for a general software developer. Salaries for potential positions our graduates can seek include statistician ($84,060), software developer/application ($101,790), financial analyst ($84,300) credit analyst ($71,290), personal investment advisor ($90,640), and software developer ($103,560). The ***FinTech MS*** represents an interdisciplinary approach, through partnership between finance and computer science, to preparing graduates to meet the workforce needs of the modern financial services industry.

It is important to underscore the uniqueness of the ***MS in FinTech***, which distinguishes it from an MS in Finance or MS in Quantitative Finance.

- MS in Finance graduates typically perform traditional finance tasks (e.g., investments, asset management) and MS in Quantitative Finance graduates often work as Wall Street quantitative analysts or risk analysts.
- The ***MS in FinTech***, however, will prepare students to analyze financial service activities, identify functions that can be simplified and build processes to automate them, these graduates, capable of programming and analyzing market requirements, will be able to automate the simpler, "commoditizable" finance activities and functions (e.g., payment systems, robo-advising, P2P lending, online credit checks).

Alternatives to Decision:
There is no alternative if this degree program is not approved.

Fiscal Impact and Source of Funding:
The program tuition is set at a level that ensures program expenses are self-supported by tuition revenue and will run as an Auxiliary enterprise.

Recommended Action:
The Provost's office recommends approval of the new degree program. The program met all eight BOG Criteria "with strength."

Authority for Board of Trustees Action:
BOG Regulation 8.011 – Authorization for New Academic Degree Programs and Other Curricular Offerings.

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: Analysis Summary for New Degree Authorization – FinTech

Facilitator:
Timothy Letzring, Senior Associate Provost for Academic Affairs

Attachment A

Analysis Summary for New Degree Authorization
Program Name: FinTech MS

	BOG Criteria	Proposal Response to Criteria
1.	The goals of the program are aligned with the university's mission and relate to specific institutional strengths.	**Met with Strength** The FinTech MS will increase productivity in STEM through the multi-disciplinary departments of Finance and Computer Sciences that house this program. The program will increase graduates in STEM at UCF.
2.	If there have been program reviews or accreditation activities in the discipline or related disciplines pertinent to the proposed program, the proposal provides evidence that progress has been made in implementing the recommendations from those reviews.	**Met with Strength** The College of Business and the College of Engineering and Computer Science received strong program reviews in their recent SACSCOC review. Because of the review, both the Finance and Computer Science departments have recruited more faculty as suggested. In the AACSB review, the FinTech program was mentioned and received positive feedback.
3.	The proposal describes an appropriate and sequenced course of study. Admissions and graduation criteria are clearly specified and appropriate. The course of study and credit hours required may be satisfied within a reasonable time to degree. In cases in which accreditation is available for existing bachelor's or master's level programs, evidence is provided that the programs are accredited, or a rationale is provided as to the lack of accreditation.	**Met with Strength** All courses and faculty for this program are in place. The program proposal clearly outlines a set of desired student attributes that will ensure success in the program. The program will be offered in a cohort style which will ease registration for students. The proposal states the recommended pre-requisite courses that a student must take to be successful in the program. For admission to the program, competitive GRE scores and a competitive undergraduate GPA is required.
4.	Evidence is provided that a critical mass of faculty members is available to initiate the program based on estimated enrollments, and that, if appropriate, there is a commitment to hire additional faculty members in later years, based on estimated enrollments. For doctoral programs, evidence is provided that the faculty members in aggregate have the necessary experience and research activity to sustain a doctoral program.	**Met with Strength** Both the Finance and Computer Science departments have added new faculty in recent years and both have a large pool of faculty that are qualified to teach the required courses.

	BOG Criteria	Proposal Response to Criteria
5.	Evidence is provided that the necessary library volumes and serials; classroom, teaching laboratory, research laboratory, office, and any other type of physical space; equipment; appropriate fellowships, scholarships, and graduate assistantships; and appropriate clinical and internship sites are sufficient to initiate the program.	**Met with Strength** The library resources are in place currently. Some additional funding will be provided in the amount of $15,000 over five years for needed resources. Physical resources for the program are adequate and no additional space will be required. The program will award two fellowships to outstanding students in the program. Students will have internship opportunities with industry partners. The program will purchase another cloud server if needed.
6.	Evidence is provided that there is a need for more people to be educated in this program at this level. For all degree programs, if the program duplicates other degree programs in Florida, a convincing rationale for doing so is provided. The proposal contains realistic estimates of headcount and FTE students who will major in the proposed program and indicates steps to be taken to achieve a diverse student body.	**Met with Strength** A recent market study shows demand for graduates in the FinTech field. Training in this field will command a high salary after graduation. The program is unique in Florida and in the country. The program received many letters of support further demonstrating the need for graduates in this field. One of these letters commits to hire graduates from the program. ***NOTE: On 9/16/2019, Florida Governor Ron DeSantis announced several initiatives to encourage FinTech companies to start, relocate, and expand in Florida and stated "…we are committed to making Florida the top destination for FinTech companies to grow and succeed."***
7.	The proposal provides a complete and realistic budget for the program, which reflects the text of the proposal, is comparable to the budgets of similar programs, and provides evidence that, if resources within the institution are redirected to support the new program, such a redirection will not have a negative impact on undergraduate education. The proposal demonstrates a judicious use of resources and provides a convincing argument that the output of the program justifies the investment.	**Met with Strength** The program will use non-traditional tuition and is projected to be self-supporting. There is no expected negative impact on undergraduate education.
8.	The proposal provides evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service.	**Met with Strength** The Finance department has many graduates and recently started an undergraduate FinTech minor that could feed students to this graduate program. The faculty in both departments generate a high level of activity including teaching, service, publications, and research.

ITEM: EPC-3

UCF BOARD OF TRUSTEES
EDUCATIONAL PROGRAMS COMMITTEE
February 6, 2020

Title: Approval of New Degree Program – Master of Science in Computer Vision

Background:
All graduate degree programs utilizing a new CIP Code are required to be reviewed and approved by the Board of Trustees.

Issues to be Considered:

- **Program Description**: The Master of Science in Computer Vision (MSCV) program aims to provide technical skills and domain knowledge to the future professionals who seek to acquire expertise in Computer Vision and its related areas. This involves proficiency in acquiring, processing, analyzing, and understanding images, videos, 3D data, and other types of high-dimensional data of the real world.

- **Benefits**: The MSCV program supports UCF's goal of achieving international prominence in key programs of graduate study and research, as it will help make both Computer Science at UCF better able to attract faculty and will help attract research funding from national and local agencies and companies. UCF's Computer Vision graduate program is ranked 5th in the USA and 10th in the world (see http://csrankings.org/#/index?vision). The proposed program supports UCF's goal of collaborating with industry, because industrial-vision companies will find interesting opportunities to strengthen their ties to UCF by pursuing synergistic research and recruiting trainees who are tailored to the needs of industry. The workforce training aspect of the program also contributes to UCF's goal of becoming America's leading partnership university. Several aspects of the degree program, in particular the final project, will connect with the industries in the local area.

- **Career/Workforce Needs**: The fast-growing interests and investments in Artificial Intelligence (AI) in the United States and around the world have to be powered by a well-prepared workforce, which includes the area of computer vision as an important support field. A Forbes article from June 2018 reported, "There are about 300,000 AI professionals worldwide, but millions of roles available."* The US Bureau of Labor Statistics estimates a 19% growth between 2016 and 2026 for computer and information research scientists, which includes Computer Vision engineers. Indeed's "The Best Jobs in the U.S.: 2019" study shows that Computer Vision Engineer is the 13th best job of 2019 with a 116% growth in number of postings from 2015-2018 and an average base salary of $158,303. Recent Ph.D. graduates of the Center for Research in Computer Vision at UCF have gone on to work for tech giants like Amazon, Apple, Google, Microsoft and Netflix with some even earning more than $300k starting salary.

  *Marr, Bernard, "The AI Skills Crisis And How To Close The GAP", Forbes, June 25, 2018.

Alternatives to Decision:
There is no alternative if this degree program is not approved. The track will remain in the broader degree program.

Fiscal Impact and Source of Funding:
No new funds requested. E&G reallocation from within the college.

Recommended Action:
The Provost's office recommends Board of Trustees approval of the new degree program. The program met all eight BOG criteria, five with strength.

Authority for Board of Trustees Action:
BOG Regulation 8.011 – Authorization for New Academic Degree Programs and Other Curricular Offerings.

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: Analysis Summary for New Degree Authorization – Computer Vision

Facilitator:
Timothy Letzring, Senior Associate Provost for Academic Affairs

Attachment A

Analysis Summary for New Degree Authorization
Program Name: Computer Vision MS

	Criteria	Proposal Response to Criteria
1.	The goals of the program are aligned with the university's mission and relate to specific institutional strengths.	**Met with Strength** The program supports UCF's goal of international prominence in key programs of graduate study and research. It is a STEM program. The program plans to create partnerships with industry for their independent study courses and for graduates of the program. The program will train students for the workforce in industry.
2.	If there have been program reviews or accreditation activities in the discipline or related disciplines pertinent to the proposed program, the proposal provides evidence that progress has been made in implementing the recommendations from those reviews.	**Met** The computer vision and computer science disciplines are not reviewed by an accrediting body. The College of Engineering and Computer Science is currently under a 7-year review. Its prior 7-year program review had seven recommendations. The program has taken several steps to address these recommendations, included adjusting the faculty workload policy, hiring of addition of faculty into open lines, increasing faculty diversity, and efforts to better advertise and attract high-quality domestic and international students.
3.	The proposal describes an appropriate and sequenced course of study. Admissions and graduation criteria are clearly specified and appropriate. The course of study and credit hours required may be satisfied within a reasonable time to degree. In cases in which accreditation is available for existing bachelor's or master's level programs, evidence is provided that the programs are accredited, or a rationale is provided as to the lack of accreditation.	**Met** The course sequence is clearly listed along with the anticipated sequence for students entering in the Fall term and all courses are already offered as part of other degree programs. Likewise, admissions standards are clearly described and the requirements for graduation of properly defined. The degree requires a total of 30 credit hours that can be satisfied within a reasonable time for a MS degree.
4.	Evidence is provided that a critical mass of faculty members is available to initiate the program based on estimated enrollments, and that, if appropriate, there is a commitment to hire additional faculty members in later years, based on estimated enrollments. For doctoral programs, evidence is provided that the faculty members in aggregate have the necessary experience and research activity to sustain a doctoral program.	**Met** The program utilizes 10 faculty members, five already tenured in the department, and one forecast hire, sufficient to support the proposed program. The Committee felt that the impact on the existing Computer Science MS degree could have been addressed.

	Criteria	Proposal Response to Criteria
5.	Evidence is provided that the necessary library volumes and serials; classroom, teaching laboratory, research laboratory, office, and any other type of physical space; equipment; appropriate fellowships, scholarships, and graduate assistantships; and appropriate clinical and internship sites are sufficient to initiate the program.	**Met with Strength** The existing library and physical space are adequate for the program. Existing classrooms have capacities that exceed the targeted steady state headcount of students.
6.	Evidence is provided that there is a need for more people to be educated in this program at this level. For all degree programs, if the program duplicates other degree programs in Florida, a convincing rationale for doing so is provided. The proposal contains realistic estimates of headcount and FTE students who will major in the proposed program and indicates steps to be taken to achieve a diverse student body.	**Met with Strength** There are no other computer vision master's programs in the State University System in Florida. Strong growth in the job market for students with Computer Vision MS degrees is forecast, with the US Bureau of Labor estimating a 19% growth between 2016-2026 for computer and information research scientists. The headcount is reasonable, and the College already participates in various diversity outreach efforts.
7.	The proposal provides a complete and realistic budget for the program, which reflects the text of the proposal, is comparable to the budgets of similar programs, and provides evidence that, in the event that resources within the institution are redirected to support the new program, such a redirection will not have a negative impact on undergraduate education. The proposal demonstrates a judicious use of resources and provides a convincing argument that the output of the program justifies the investment.	**Met with Strength** The budget is both modest and realistic, and comparable to other programs. The program leverages existing faculty and courses, both having the necessary capacity to support the proposed program. The Committee did not feel that the reallocated budget and resources required for the proposed program will have a negative impact on other degree programs or undergraduate education.
8.	The proposal provides evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service.	**Met with Strength** The Faculty are productive in all aspects. The faculty that will be participating in the department have a strong track record of research funding, dissemination, teaching, and student advisement.

ITEM: EPC-4

UCF BOARD OF TRUSTEES
EDUCATIONAL PROGRAMS COMMITTEE
February 6, 2020

Title: Approval of New Degree Program – Ph.D. in Sustainable Coastal Systems

Background:

All graduate degree programs utilizing a new CIP Code are required to be reviewed and approved by the Board of Trustees. The College of Community Innovation and Education is proposing a new degree program for CIP Code 30.3301 (Sustainability Studies). This was approved at the July 18, 2019 EPC and full Board of Trustees meetings. Re-approval is necessary for alignment with Board of Governor's deadlines for doctoral programs.

Issues to be Considered:

- Program Description:
  The proposed Doctorate in Sustainable Coastal Systems is intended to address the need for well-trained professionals in a field that is by its nature interdisciplinary. As the transition zone between the land and the sea, the coast gives rise to complex issues in science, technology, and public policy. Individuals involved in coastal research, management and policy-making need to be well-versed in wide range of disciplines. The proposed program will provide them with the knowledge and experience for working with coastal professionals in a variety of fields.

- Benefits:
  Coastal areas are the most heavily populated and economically vibrant regions of the world; however, these regions are uniquely threatened by climate change and associated impacts. The state of Florida is already experiencing these impacts, as evidenced by increasingly common sunny-day coastal flooding, chronic harmful algae blooms, and the devastation brought by storms such as the recent Hurricanes Irma and Michael. The central objective of the interdisciplinary doctorate in Sustainable Coastal Systems is to train the next generation of students who combine a rigorous disciplinary depth with the ability to reach out to other disciplines and work in interdisciplinary teams.

- Career/Workforce Needs:
  The degree program will focus on advanced education in the human and natural processes and components that comprise, affect, and modify coastal systems. It will provide students with rigorous quantitative training in the methods employed by professionals in these fields, along with expertise in broader social and scientific theory. Students will enter with degrees in the physical, natural, or social sciences, or engineering, and will be prepared for careers in research and public policy. Based on recent National Science Foundation data, fewer than half will pursue careers in academia. The majority will be employed in private industry, NGOs and government. The US population, and especially that of Florida, has been increasingly concentrated along the coast. More than 40% of the U.S. population resides in coastal counties, which generated 46% ($7.9 trillion) of the country's GDP in 2017. As a

consequence, there exists an ever-expanding demand for focused research and policy development to maintain the integrity and quality of the natural resources that make these areas an essential part of our society. The U.S. expends over $200 billion annually on environmental protection and conservation. The U.S. Bureau of Labor Statistics projects employment of environmental scientists and specialists to grow by 11% over the next ten years, faster than the average for all occupations.

Alternatives to Decision:
There is no obvious alternative if this degree program is not approved.

Fiscal Impact and Source of Funding:
No new funds are requested. E&G reallocation is between several departments based on the interdisciplinary nature of the program.

Recommended Action:
The Provost's office recommends Board of Trustees approval of the new degree program. It meets six of the eight BOG criteria with strength and meets the expectations of the remaining criteria.

Authority for Board of Trustees Action:
BOG Regulation 8.011 – Authorization of New Academic Degree Programs and Other Curricular Offerings.

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: Analysis Summary for New Degree Authorization – Public Administration

Facilitator:
Timothy Letzring, Senior Associate Provost for Academic Affairs

Attachment A

Analysis Summary for New Degree Authorization
Program Name: Sustainable Coastal Systems PHD

	Criteria	Proposal Response to Criteria
1.	The goals of the program are aligned with the university's mission and relate to specific institutional strengths.	**Met with Strength** The program will be affiliated with the National Center for Integrated Coastal Research and administered out of the College of Graduate Studies. The program supports UCF's interdisciplinary approach to solve societal problems; it incorporates seven colleges and 12 departments and schools. Admitted students are expected to have diverse academic backgrounds to build interdisciplinary teams. The Center has developed partnerships with private industry, NGOs, and both local, state, and federal government agencies. The program will focus in part on global climate change and sea level rise which is a topic of increasing importance for Florida and globally. This program is an academic component of the Sustainable Coastal Systems Cluster which was part of UCF's Faculty Cluster Initiative.
2.	If there have been program reviews or accreditation activities in the discipline or related disciplines pertinent to the proposed program, the proposal provides evidence that progress has been made in implementing the recommendations from those reviews.	**N/A** The proposed program is unique and interdisciplinary; thus, there is not an accrediting organization. Existing graduate degree programs in departments affiliated with the proposed program have undergone regular reviews as part of the 7-year cycle.
3.	The proposal describes an appropriate and sequenced course of study. Admissions and graduation criteria are clearly specified and appropriate. The course of study and credit hours required may be satisfied within a reasonable time to degree. In cases in which accreditation is available for existing bachelor's or master's level programs, evidence is provided that the programs are accredited, or a rationale is provided as to the lack of accreditation.	**Met with Strength** A detailed list and sequence of courses is provided to outline the program's curriculum. The 72-credit hour program includes 12 credit hours representing five new core courses. These have been approved by the Graduate Council Curriculum Committee. The proposal includes detailed syllabi for the core courses. The students can choose their curricular path a variety of elective courses. These include specializations in Anthropology, Biology, Civil Engineering, Economics, Political Science, Public Administration, Technical Communication, and Tourism.
4.	Evidence is provided that a critical mass of faculty members is available to initiate the program based on estimated enrollments, and that, if appropriate, there is a commitment to hire additional faculty members in later years based on estimated enrollments. For doctoral programs, evidence is provided that the faculty members in aggregate have the necessary experience and research activity to sustain a doctoral program.	**Met with Strength** A total of 24 UCF faculty members, all with graduate faculty status, will be associated with the program. These faculty can serve as dissertation committee members and chairs. Six core faculty will be the primary instructors for the core courses (plus the Center Director and Graduate Program Coordinator). An extensive list of the faculty's acquired funding and research experience is included with the proposal and is indicative of successful grantsmanship.

	Criteria	Proposal Response to Criteria
5.	Evidence is provided that the necessary library volumes and serials; classroom, teaching laboratory, research laboratory, office, and any other type of physical space; equipment; appropriate fellowships, scholarships, and graduate assistantships; and appropriate clinical and internship sites are sufficient to initiate the program.	**Met with Strength** The library review states that current resources are adequate to meet the needs of students in the program. The Center has the appropriate physical resources in place for research and laboratory space. There is a possibility of future expansion to a handful of partnering field stations/educational facilities around the state. Graduate Research Assistantships will primarily be used to fund students; however, the program is seeking endowed scholarships and fellowships though the foundation to augment student support.
6.	Evidence is provided that there is a need for more people to be educated in this program at this level. For all degree programs, if the program duplicates other degree programs in Florida, a convincing rationale for doing so is provided. The proposal contains realistic estimates of headcount and FTE students who will major in the proposed program and indicates steps to be taken to achieve a diverse student body.	**Met with Strength** The proposal demonstrated that there is a need graduates in this field. The Bureau of Labor Statistics projects an increased demand of environmental scientists for the foreseeable future. The committee indicated that more documentation is needed to strengthen this area of the proposal. The committee suggests more letters of support from industry partners/potential employers should be added to the proposal. These partners could provide a source of internships.
7.	The proposal provides a complete and realistic budget for the program, which reflects the text of the proposal, is comparable to the budgets of similar programs, and provides evidence that, in the event that resources within the institution are redirected to support the new program, such a redirection will not have a negative impact on undergraduate education. The proposal demonstrates a judicious use of resources and provides a convincing argument that the output of the program justifies the investment.	**Met** The committee suggests that the overhead return FCI monies be considered to support students who will not have the opportunity to serve as Graduate Teaching Assistants, or are experiencing a funding gap, or where there is no Graduate Research Assistant funding available. The proposal should show evidence that Graduate Research Assistant funding will support the projected number of graduate students to be enrolled in the program. The program should explore opportunities for paid internships with state, local, and federal government agencies and partnering industries.
8.	The proposal provides evidence that the academic unit(s) associated with this new degree have been productive in teaching, research, and service.	**Met with Strength** The associated faculty have been very productive in teaching, research, and service. Detailed information of their accomplishments is listed in the proposal. The faculty have a successful track record of mentoring PhD students and acquiring external funding.

ITEM: INFO-2

UCF BOARD OF TRUSTEES
EDUCATIONAL PROGRAMS COMMITTEE
February 6, 2020

Title: Provost Update

Background:
Academic Affairs Update

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

Supporting Documentation:
N/A

ITEM: INFO-3

UCF BOARD OF TRUSTEES
EDUCATIONAL PROGRAMS COMMITTEE
February 6, 2020

Title: 2020 BOT Educational Programs Committee Meeting Dates

Background:
The 2020 Board of Trustees Educational Programs Committee meetings are scheduled as follows:

February 6	2:00 – 4:00 p.m.	Thursday	President's Boardroom, Millican Hall
April 9	2:00 – 4:00 p.m.	Thursday	President's Boardroom, Millican Hall
June 3	2:00 – 4:00 p.m.	Wednesday	President's Boardroom, Millican Hall
August 6	2:00 – 4:00 p.m.	Thursday	President's Boardroom, Millican Hall
October 8	2:00 – 4:00 p.m.	Thursday	President's Boardroom, Millican Hall
November 18	2:00 – 4:00p.m.	Wednesday	President's Boardroom, Millican Hall

Issues to be Considered:
Dates are subject to change

Alternatives to Decision:
Recommend new meeting dates

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

Supporting Documentation:
None

Facilitator:
Kenneth Bradley, Chair, Educational Programs Committee