



**Board of Trustees
University of Central Florida
Educational Programs Committee
March 27, 2014, 10:30 – 11:30 a.m.
Live Oak Center**

Conference call-in phone #800-442-5794, passcode 463796

AGENDA

I. CALL TO ORDER

Robert Garvy

Chair, Educational Programs Committee

II. ROLL CALL

Susan Foisy

Senior Administrative Assistant to the
Executive Vice Provost

III. MEETING MINUTES

Chair Garvy

- Approval of the January 23, 2014,
Educational Programs Committee meeting minutes

IV. NEW BUSINESS

- Conferral of Degrees (EPC-1)
- 2016-17 Proposed Academic
Calendar (EPC-2)
- New Degree Programs
 - Nanotechnology, P.S.M. (EPC-3a)
 - Writing and Rhetoric, B.S. (EPC-3b)

Tony G. Waldrop

Provost and Executive Vice President

Maribeth Ehasz

Vice President for Student
Development and Enrollment Services

DeLaine Priest

Associate Vice President for
Student Development and
Enrollment Services

C. Ross Hinkle

Vice Provost and Dean
of the College of Graduate Studies

Elliot Vittes

Interim Vice Provost and Dean of the Office
of Undergraduate Studies

- Centers and Institutes Review Results
(INFO-1)

Diane Z. Chase

Executive Vice Provost

- Provost's update

Tony G. Waldrop

V. OTHER BUSINESS



MINUTES
Educational Programs Committee

University of Central Florida
Board of Trustees

January 23, 2014

Live Oak Center

Conference call-in #800-442-5794, passcode 463796

CALL TO ORDER

Trustee Robert Garvy, chair of the Educational Programs Committee, called the meeting to order at 10:20 a.m. Committee members Richard Crotty, Reid Oetjen, and Melissa Westbrook were present. Committee member Ray Gilley attended via teleconference. Board of Trustees Chair Olga Cavet was present.

MINUTES

The minutes from the November 14, 2013, meeting were approved as written.

NEW BUSINESS

Student Achievement Measures (INFO-1)

Diane Chase, Executive Vice Provost, provided an overview of Student Achievement Measures. The Student Achievement Measures (SAM) provides a more complete picture of student progress and completion. Current federal guidelines only track success for students who start and complete their education at a single institution. The SAM project reports students as successful regardless of their completion institution and also considers students as successful if they continue to be enrolled in a higher education institution.

M. Paige Borden, Assistant Vice President for Institutional Knowledge Management, provided additional details. UCF's SAM Web page presents data on full-time first-time-in-college students (FTIC) and full-time transfer students. The new models present the percentage of students that have graduated from UCF or from a subsequent institution, the percentage of students that are still enrolled at UCF or a subsequent institution, and the percentage of students whose enrollment or completion status is unknown.

UCF is an inaugural member of the SAM project and information was first published in December 2013. Overall success rates for students that started in 2007 include six-year FTIC – 89.3 percent, six-year transfer – 88.7 percent.

Performance Funding Model (INFO-2)

Tony Waldrop, Provost and Executive Vice President, updated the committee on the Performance Based Funding process. The model includes a total of ten metrics. Eight metrics are common to all universities and are selected by the Board of Governors in consultation with the legislature. Two metrics are university specific: one is determined by the Board of Governors and one is determined Board of Trustees. The UCF Board of Trustees approved metric is the number of baccalaureate degrees awarded at the university.

Borden discussed UCF's performance on all 10 metrics, as well UCF's performance within the state university system and the potential impact of performance funding on the university's E&G budget.

TeachLive (INFO-3)

Due to time restraints, the TeachLive demonstration was postponed.

Provost's Comments

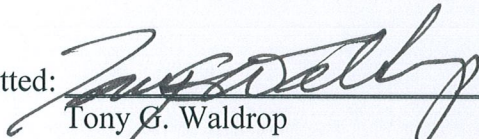
Maribeth Ehasz, Vice President for Student Development and Enrollment Services, updated the committee on Spring 2014 enrollment headcount and student credit hour production.

M.J. Soileau, Vice President for the Office of Research & Commercialization, presented the 2013 research funding summary that included funding comparisons by source, the sequester effect on external funding, a summary of submissions and awards, and the effects of top performers.

Waldrop announced that Dean Michael Georgiopoulos was elected to the 2014 University of Connecticut's Academy of Distinguished Engineers.

Trustee Garvy adjourned the meeting at 11:20 a.m.

Respectfully submitted:



Tony G. Waldrop
Provost and Executive Vice President

3-13-14
Date

ITEM: EPC-1

EDUCATIONAL PROGRAMS COMMITTEE
University of Central Florida

SUBJECT: Conferral of Degrees

DATE: March 27, 2014

PROPOSED BOARD ACTION

Concurrence: Conferral of degrees at the Spring 2014 commencement ceremonies.

BACKGROUND INFORMATION

UCF expects to award the following degrees at the Spring 2014 commencement ceremonies on May 1-3, 2014:

6,716	baccalaureate degrees
1,186	master's degrees
<u>158</u>	doctoral and specialist degrees
8,060	Total

Supporting documentation: Registrar's Graduation Count

Prepared by: Amy Swinford, Senior Administrative Assistant to the Vice President and Chief of Staff

Submitted by: John C. Hitt, President

UCF Spring 2014 Commencement

Note: Procession of graduates begins 20 minutes prior to each ceremony.

*Projected Attending (Baccalaureate only) is an estimate based on 70% attending rate

[illegible]

EDUCATIONAL PROGRAMS COMMITTEE
University of Central Florida

SUBJECT: 2016-17 Proposed Academic Calendar

DATE: March 27, 2014

PROPOSED BOARD ACTION

Approval of 2016-17 UCF academic calendar.

BACKGROUND INFORMATION

The Board of Governors requires that the Board of Trustees approves the university's academic calendar. The attached 2016-17 calendar developed by the UCF Academic Calendar Committee has been approved by Provost Waldrop and will be submitted to the Board of Governors for final approval to ensure compliance with the guidelines for academic calendars established in Rule 6C-8.001.

Supporting documentation: 2016-17 Proposed Academic Calendar

Prepared by: Maribeth Ehasz, Vice President for Student Development and Enrollment Services
DeLaine Priest, Associate Vice President for Student Development and Enrollment Services

Submitted by: Tony Waldrop, Provost and Executive Vice President

EVENT	Fall 2016	Spring 2017	SU A (6 wks) 2017	B (6 wks) 2017	C (12 wks) 2017	D (9 wks) 2017
Classes Begin	22-Aug	9-Jan	15-May	26-Jun	15-May	15-May
Withdraw Date	31-Oct	22-Mar	8-Jun	20-Jul	5-Jul	21-Jun
Last Day of Class	3-Dec	24-Apr	23-Jun	4-Aug	4-Aug	15-Jul
Study Day	5-Dec	25-Apr	-	-	-	-
Final Exams	12/6 - 12/12	4/26 - 5/2	-	-	-	-
Grades Due	15-Dec	5-May	28-Jun	9-Aug	9-Aug	20-Jul
Degree Conferral Date	16-Dec	4-May	5-Aug	5-Aug	5-Aug	5-Aug
Certifications	19-Dec	8-May	11-Aug	11-Aug	11-Aug	11-Aug
Commencement	12/16 and 12/17	5/4 - 5/6	5-Aug	5-Aug	5-Aug	5-Aug
Number of Class Days	78	77	29	29	58	43
Number of Final Exam Days	6	6	-	-	-	-
Total Number of Instructional Days	84	83	29	29	58	43
Grand Total Number of Instructional Days	225					
Total Instructional Days*	Fall 2016	Spring 2017	SU A (6 wks) 2017	B (6 wks) 2017	C (12 wks) 2017	D (9 wks) 2017
August	8.5	-	-	-	-	-
September	23	-	-	-	-	-
October	23.5	-	-	-	-	-
November	20.5	-	-	-	-	-
December	8.5	-	-	-	-	-
January	-	17.5	-	-	-	-
February	-	22	-	-	-	-
March	-	19.5	-	-	-	-
April	-	22	-	-	-	-
May	-	2	12	-	12	-
June	-	-	17	5	22	22
July	-	-	-	20	20	10
August	-	-	-	4	4	11
Totals	84	83	29	29	58	43
Class Meeting Days**	Fall 2016	Spring 2017	A (6 weeks)	B (6 weeks)	C (12 weeks)	D (9 weeks)
M-W-F	42	42	17	18	34	26
M-T-W-R	58	57	23	23	46	34
M-T-W-R-F	70	71	29	29	58	43
M-W	29	28	11	11	22	17
T-R	29	29	12	12	23	16
M T	14	14	5	6	11	8
W	15	15	6	5	12	8
R	15	14	6	6	12	9
F	14	14	6	6	12	9
S#	14	14	6	6	12	9
	14 (7)	14 (7)	-	-	-	-

* Does include final exam days

Holidays: Sep 5; Nov 11; Nov 24-26; Jan 16; Mar 13-18; May 29; Jul 4
Saturday is counted as one-half an instructional day

** Does not include final exams

EDUCATIONAL PROGRAMS COMMITTEE
University of Central Florida

SUBJECT: Nanotechnology, Professional Science Master's

DATE: March 27, 2014

PROPOSED BOARD ACTION

Approval of a professional science master's degree in nanotechnology.

BACKGROUND INFORMATION

The NanoScience Technology Center (NSTC) proposes to establish an interdisciplinary professional science master's degree program in nanotechnology. Nanoscience and nanotechnology comprise an emerging field that encompasses all science, technology, engineering, and mathematics disciplines. In 2001, the federal government implemented the National Nanotechnology Initiative. From 2001 to 2012, the total investment in the initiative reached \$18 billion. The budget for 2013 was \$1.8 billion. After more than ten years of intense development, nanotechnology is generating remarkable scientific and technological advances. These advances are enabling a broad spectrum of applications in electronics, medicine, energy, manufacturing, advanced materials, and other fields. The second goal of the new strategic plan of National Nanotechnology Initiative recommended by the National Science and Technology Council in February 2011 is to foster the transfer of new nanotechnologies into products for commercial and public benefit. It is estimated by the Global Industry Analysts (October 2010) that the worldwide market for products incorporating nanotechnology reached approximately \$254 billion in 2009, and the market potential for nanosystems is \$1.2 trillion dollars by 2020. Consequently, there is a strong demand for professionals with the scientific knowledge and the business management skills necessary for the nanotechnology field.

The proposed degree program will incorporate the higher-level scientific content and the business and entrepreneurial components that are necessary to drive innovative ideas in nanotechnology development. It will consist of 36 credit hours at the graduate level including 12 credit hours in nanotechnology; nine credit hours of elective courses in physics, engineering, chemistry or biology; nine hours of professional development in a business certificate program (Graduate Certificate in Technology Ventures); three credit hours of research training; and three credit hours of internship training. From the coursework in nanotechnology and the other related science and engineering areas, students will gain basic knowledge, as well as the most advanced developments and applications of nanoscale materials and devices. Through internship training, students will gain hands-on research and business experience in applying nanotechnology for new product development and commercialization.

This proposal was evaluated and recommended by the center, college, and university Graduate Council Program Review Committee. The College of Graduate Studies recommends this proposal, and it has evaluated six of the eight program criteria as *met with strength* and two as *met*. The proposed implementation date is Fall 2014.

Supporting documentation: Analysis Summary for New Degree Authorization

Prepared by: C. Ross Hinkle, Vice Provost and Dean of the College of Graduate Studies

Submitted by: Tony G. Waldrop, Provost and Executive Vice President

Analysis Summary for New Degree Authorization **P.S.M. in Nanotechnology**

	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. This proposed degree program supports the University of Central Florida and State University System Strategic Planning goals in many ways. As the only program of its kind in the State of Florida, the P.S.M. in Nanotechnology will offer prospective students access to advanced studies in the high-demand and interdisciplinary field of nanotechnology as well as professional business preparation to equip them to pursue technology entrepreneurship or other careers involving the commercialization of nanotechnology. The P.S.M. in Nanotechnology offers a unique professional degree that supports several science, technology, engineering, and mathematics areas and will develop a workforce that can meet the needs of several industries. The NSTC is a world-class academic and research program that will provide stewardship of the P.S.M. program and whose reputation will be enhanced by the success of its graduates in industry and through new product commercialization and new business opportunities that emerge from this undertaking. The proposed P.S.M. program will provide a trained professional workforce to the local community and accelerate the economic development and globalization in Florida by facilitating technology transfer, encouraging new startup company formation, and attracting new talents to Florida. NSTC has established strong partnerships with local and national industry and businesses. Many NSTC faculty members have continuous and on-going research projects sponsored by industry partners. The NSTC has established a 21-member external advisory board for the P.S.M. program, including 17 from industry, 11 of whose companies are located in Florida.
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 P.S.M. proposal was certified by the National P.S.M. Association Office housed within the Keck Graduate Institute (K.G.I.), which is the entity designated by the Sloan Foundation to administer the P.S.M. affiliation process. Having already secured K.G.I. certification, the program may proceed to recruit students immediately following Board of Trustees approval.

	Criteria	Proposal Response to Criteria
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. The 36 credit hour P.S.M. in Nanotechnology has a clear pathway of coursework for the master's level and is designed to be completed in two academic years plus a summer internship. Applicants are expected to have obtained an undergraduate degree in one of the following areas: physics, chemistry, biology, or engineering. The program's curriculum has also considered the disciplines in which students can pursue Ph.D. level study including physics, chemistry, engineering, optics, biomedical sciences, and business administration. This gives master's-prepared students a pathway to the workforce in STEM fields as well as a wide interdisciplinary range of options for advanced study. While there is currently no appropriate body to accredit this P.S.M. program, students will have the opportunity to take courses offered by UCF units that hold specialized accreditations or similar recognitions by authorities including the Association to Advance Collegiate Schools of Business, the Accreditation Board for Engineering and Technology, and the American Chemical Society.
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. The College of Graduate Studies has hired a coordinator to support all P.S.M. programs at UCF including the proposed nanotechnology program. Part of the P.S.M. coordinator's role is to insure that internships are in place and tracked as needed. In addition, since this is an interdisciplinary program, the College of Graduate Studies will work with the NSTC staff members to support the recruitment of students for the program. NSTC will designate a full-time, tenured or tenure-track faculty member as the P.S.M.'s graduate program coordinator. This faculty member will administer the P.S.M. in Nanotechnology program and will be responsible for the overall maintenance and development of the graduate program, including acting as chair of the Graduate Committee. Six new courses (four core courses and two electives) will be developed by NSTC faculty members for this proposed program. The center currently has a sufficient number of affiliated faculty members to deliver the six new nanotechnology courses under development and plans to hire two additional faculty members as well. NSTC has also secured letters of support from the College of Business Administration that will open its technology venture courses to P.S.M. in Nanotechnology students as well as other UCF units from which students may select elective courses.

	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 NSTC has excellent facilities and laboratories for implementing this program. The UCF Library has evaluated the needs of the program and the College of Graduate Studies has insured that the funds needed for the associated Library holdings will be provided. Community partners are committed to supporting the program and internship opportunities provided by many of these partners will meet the needs of the program. Research laboratories and seminar rooms will be provided by NSTC (~22,000 sq. ft.). The NSTC seminar room (~500 sq. ft.) can be used to teach the six new courses, while the existing courses that comprise the rest of the curriculum will be taught in their current classrooms.

Criteria

Proposal Response to Criteria

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. In 2001, the federal government implemented the National Nanotechnology Initiative (NNI). From 2001 to 2012, the total investment in the initiative reached \$18 billion. The budget for 2013 was \$1.8 billion. The new strategic plan of NNI that was recommended by the National Science and Technology Council in February 2011 specifically states that the next goal is to foster the transfer of new nanotechnologies into products for commercial and public benefit. Recently, the National Science Foundation awarded \$55.5 million to engineering research centers to innovate nanoscale science and engineering. According to U.S. National Science Foundation estimates, by 2015 the annual global market for nanotechnology-related goods and services will top \$1 trillion, thus making it one of the fastest-growing industries in history. Another study, *Nanotechnology in Healthcare* conducted by the Freedonia Group made similar predictions that an explosive demand for healthcare-related nanotechnology products will increase from \$53 billion in 2011 to \$110 billion in 2016. It is estimated by the Global Industry Analysts (October 2010) that the worldwide market for products incorporating nanotechnology reached about \$254 billion in 2009 and the market potential for nanosystems is \$1.2 trillion dollars by 2020.

No P.S.M. program in Nanotechnology currently exists in the Florida SUS or Florida private universities.

There are currently five P.S.M. programs related in nanoscience fields listed on the P.S.M. Web site:

- Appalachian State University, Nanoscience for Advanced Materials, North Carolina
- Arizona State University, Nanoscience, Arizona
- Indiana University of Pennsylvania, Nano-science for Industrial Materials, Pennsylvania
- Joint School of Nanoscience and Nanoengineering, Nanoscience, North Carolina
- Northeastern University, Biomedical Nanotechnology, Massachusetts

Since NSTC was established in 2004, it has helped to prepare doctoral and master's degree students to work as scientists and engineers in industry and academia. The proposed new P.S.M. program in nanotechnology is designed to attract a new group of students whose career goals are geared towards business development and management in nanotechnology-related industry.

Criteria	Proposal Response to Criteria
	The program will provide advancement and development opportunities to a diverse population of students. The program is expected to attract a diverse student body, including black and Hispanic students, which will help enhance the diversity of business professionals in high-technology industry. The program will make extensive use of existing frameworks for student recruiting, including strong advertising, direct mailings to minority student offices in the southeast region, recruiting at national conferences focused on minorities in science and engineering including the National Conference of Black Physics Students, National Society of Hispanics Physicists, the Society for Advancement of Chicanos and Native Americans, and the Society of Women Engineers. Recruitment efforts will also include interacting closely with local chapters of these societies by organizing lunch meetings and involving existing graduate students in the recruitment efforts. Additionally, UCF is a member of the Florida-Georgia Louis Stokes Alliance for Minority participation, which the program will use extensively to identify and contact talented students. The program will also take advantage of UCF's Office of Multicultural Academic and Support Services, which provides general advising and directly mails all UCF minority engineering and science majors. Additional recruitment will occur through visiting historical minority-serving institutions represented among the Hispanic Association of Colleges and Universities, and the Historically Black Colleges and Universities, as well as Florida A&M University, Florida Memorial College, Morehouse College, Bethune-Cookman University, Florida International University, Florida Atlantic University, Barry University, Valencia State College, University of Mayaguez, and the University of Puerto Rico.
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 new P.S.M. program will not significantly impact the teaching load of the NSTC faculty members and other departments. Among the 36 credit hours, six new courses will be established (18 credit hours) and the other courses already exist in various programs across the campus. Currently, NSTC faculty members teach about 38 courses per year (1/1 teaching load, total 19 faculty members). The anticipated faculty full-time equivalency workload by budget classification is 0.26 for year one and 0.51 for year five. The commitment of the program, the university, and the partners is strong. The new program will not adversely affect UCF undergraduate education supported by the NSTC or otherwise.

	Criteria	Proposal Response to Criteria
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. Since 2004, the center has hosted approximately 80 doctoral students, 40 master's students, 40 postdoctoral research associates, and more than 80 undergraduate student researchers. The NSTC has been actively involved in the education and training of undergraduate students in the nanotechnology field. In the past eight years, more than 80 undergraduate students have received research training at NSTC under the supervision of NSTC faculty members. Several faculty members have developed and offered new undergraduate and graduate courses that focus on nanotechnology. The total number of students enrolled in these classes is approximately 400 (2008-13). In 2008, NSTC initiated and organized the first NanoFlorida conference. Since then, this conference has developed into a successful annual event that attracts hundreds of attendees. This conference provides a Florida statewide forum for scientists, academicians, and industrialists working in the frontiers of nanotechnology, nano biotechnology, and nano energy and environment to develop new collaborations by sharing their expertise in their respective core areas. Each conference has attracted a large number of students (graduate and undergraduate) and postdoctoral trainees.

EDUCATIONAL PROGRAMS COMMITTEE
University of Central Florida

SUBJECT: Writing and Rhetoric, B.A.

DATE: March 27, 2014

PROPOSED BOARD ACTION

Approval of a bachelor of arts degree in writing and rhetoric.

BACKGROUND INFORMATION

This proposed bachelor of arts in writing and rhetoric program addresses central aspects of the university's goals and matches these goals to a productive degree for students interested in communication and information delivery. Students will have the opportunity to work with community partners and businesses across economic sectors. They will learn strategies for and conduct research about writing in various civic, educational, and professional contexts including global ones.

This degree program will be housed in the Department of Writing and Rhetoric, a department formed in 2010 to promote this type of educational experience, addressing critical needs for the 21st century. Employers consistently cite poor writing skills as a major deficiency among college graduates. This degree program will address workforce needs by producing graduates with proficiency in the areas of analysis, creation, editing, adaptation, and coordination of written and digital texts. Like the department's first-year-writing and writing-across-the-curriculum initiatives, this degree program has the potential to become a national model.

Graduates will be prepared for a range of high-wage employment opportunities across a number of sectors including publishing and media, professional business services, health and biotechnology, software and information technology, entertainment and hospitality, marketing and public relations, education, engineering, legal services, government, and non-profit and civic organizations. Many companies have expressed strong support for this degree program and have indicated that they would welcome its graduates as interns or employees. It clearly will further UCF's stance as offering the best undergraduate education in Florida.

This degree program is comprised of 120 credit hours including the following major academic components: the general education program (36 credit hours), common program prerequisites (six credit hours, completed with GEP courses), basic core requirements (nine credit hours), advanced core requirements (six credit hours), restricted electives (18 credit hours), and a capstone course (three credit hours) in which students complete the required writing e-portfolio. As part of their 120 credit hours, students also complete a required minor, certificate, or other structured program of study.

This proposal was evaluated and recommended by department, college, and university undergraduate committees. The Office of Undergraduate Studies recommends this program, and it has evaluated eight of the nine program criteria as *met with strength* and one of the nine criteria as *met*. The proposed implementation date is Fall 2014.

Supporting documentation: Criteria for New Degree Authorization

Prepared by: Elliot Vittes, Interim Vice Provost and Dean of Undergraduate Studies

Submitted by: Tony Waldrop, Provost and Executive Vice President

Criteria for New Degree Authorization
Undergraduate Programs
Bachelor of Arts in Writing and Rhetoric

	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 goals of the program align well with the university's mission to offer quality undergraduate programs, expand international scope, increase diversity, and establish partnerships. The institution's strengths in advanced writing and rhetoric skills will be leveraged to a wider group of students who can apply their strategies to a broad spectrum of industries and professions. An excellent reputation in the community has prepared UCF to build a unique and rigorous degree.
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. There has not been a program review since there is no major yet in the department. However, when the degree programs housed in the Department of English were reviewed during 2010-11, the external consultants also reviewed the newly formed Department of Writing and Rhetoric. Their report indicated that B.A. degrees in writing and rhetoric are "becoming more common on a national basis and are usually popular with practical-minded students. They can serve as entry-points to careers in writing and publishing and, like more traditional English degrees, as preparation for advanced study in law, medicine, or social service fields." Additionally, the minor in writing and rhetoric has been extremely successful, having grown by 500 percent since 2011 and now numbering 125 students. Surveys show strong interest in the proposed degree. If approved, this B.A. degree program would be the only one of its kind in Florida and one of only 72 nationwide.
3.	The proposal describes an appropriate and sequenced course of study, including expected student learning outcomes, an assessment plan to verify student learning, and, in the case of advanced technology and related disciplines, industry-driven competences. Evidence is provided that, if appropriate, the university anticipates seeking accreditation for the proposed program.	Met with Strength. This major is planned well and includes three core courses, additional background and practice-centered courses, elective courses, a writing internship or alternative practicum course, and a capstone course. The courses are all in place for the degree program, including relevant criteria. Appropriate student learning outcomes have been identified and an assessment plan developed.

	Criteria	Proposal Response to Criteria
4.	Evidence is provided that a critical mass of faculty is available to initiate the program based on estimated enrollments, and that, if appropriate, there is a commitment to hire additional faculty in later years, based on estimated enrollments.	Met with Strength. The rationale for creating the Department of Writing and Rhetoric in 2010 included plans to develop this bachelor's degree program. Because of this planning, the university is positioned to deliver the new degree program using a combination of experienced UCF faculty members and those newly hired to facilitate the new offering.
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; and appropriate clinical and internship sites are sufficient to initiate the program.	Met. The library's analysis is that there are adequate resources to support the proposed degree program. They have recommended an additional \$3,000 per year for four years (a total of \$12,000) for adding to the current holdings. The department has access to specialized equipment available through the University Writing Center that will meet the program's needs. Existing classroom space is sufficient to meet the needs of the program.
6.	Evidence is provided that there is a need for more people to be educated in this program at this level. 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. It is clear from national surveys, discussions with employers, and faculty members' knowledge of the field that writing and communication skills are the most important needs for businesses across the economy. Advanced writing and rhetoric graduates are needed, and the enrollment estimates are realistic. The department already has developed service-learning or other writing-focused partnerships with over 30 campus units, community-based nonprofit organizations, and businesses. Recruiting and marketing tools will target a diverse range of students. Additionally, the program will benefit from a diverse external advisory board membership whose perspectives and other contributions to the program will help recruit and retain students from a range of personal backgrounds.
7.	The proposal provides a complete and realistic budget for the program, which reflects the text of the proposal, which is comparable to the budgets of similar programs, and which 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 \$33,414 budget for year one will include \$30,414 in salary and benefits and \$3,000 for additional library resources suggested for the program. There will be no resource shifting among programs in the college.

	Criteria	Proposal Response to Criteria
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 new Department of Writing and Rhetoric (formed in 2010 by reassigning faculty members with appropriate expertise from the English Department and hiring new faculty members) has been very productive, with excellent teaching and service. The department's University Writing Center has improved its delivery to students across the university by attracting resources from the private sector, hiring a new director, moving its location to a permanent office, and joining with the new Writing Across the Curriculum initiative to provide professional guidance for UCF students and faculty members. The department's tenured and tenure-track faculty members were also identified as productive scholars and active in their fields by the external consultants who reviewed the department during 2010-11.
9.	Evidence is provided that community college articulation has been addressed and ensured. All prerequisites are listed with assurance that they are the same standardized prerequisites for similar degree programs within the SUS. The total number of credit hours does not exceed 120.	Met with Strength. The close association with DirectConnect partners and effective advising in the regional campuses ensure information flow about the program and sufficient preparation for the degree program. The two common program prerequisites are ENC 1101 Composition I and ENC 1102 Composition II. Both courses are required courses in UCF's GEP and comply with the statewide GEP that will go into effect next year.

Overview and Purpose of Center or Institute	Strengths	Challenges	Action Recommendations
College of Sciences			
<i>Institute for Social and Behavioral Sciences</i>			
The Institute for Social and Behavioral Sciences' (ISBS) mission is to provide high-quality data and research at a reasonable cost to local communities, non-profit organizations, educational institutions, private firms and businesses, and other entities needing research services. In this role, the institute directly supports UCF's goal to be the nation's leading partnership university. Some of its local clients include Metroplan Orlando, the City of Orlando, Orange County, Orange County Drug Free Coalition, Heart of Florida United Way, and Winter Park Health Foundation. In addition to its service mission, the institute supports the university's goals for undergraduate and graduate education by engaging students at all degree levels in the research projects it undertakes.	• quality of service and deliverables • support for the regional community's research needs • primarily self-sustaining research activities • client diversity • survey equipment and software • real-world research experiences for graduate and undergraduate students	• limited visibility on campus and lack of awareness about the availability of services to the university community • limited contracts with UCF academic units • limited involvement of graduate students and faculty members outside the Department of Sociology	• review the mission statement reported to the Board of Governors and update it as appropriate to determine and articulate the scope of the institute's services, internal and external to UCF, and to clarify whether or not part of the institute's role is to facilitate interdisciplinary social science research and to provide services that support UCF faculty members' research outside the Department of Sociology • review the institute's name in light of its refined mission and update it, if appropriate • promote available services to the campus community, if consistent with the institute's mission • assure that awards, expenditures, and works are appropriately credited to the institute (e.g., contracts and grants, scholarly publications, Board of Governors' annual reports)
<i>National Center for Forensic Science</i>			
The National Center for Forensic Science's (NCFS) mission is to provide relevant and responsive forensic research and operational support to the criminal justice community and to enhance the administration of justice and public safety. When the center was initially established, it primarily served a continuing education need for forensic science practitioners. Much of its	• transition from a training to research focus is consistent with shifts in national priorities • alignment with the Board of Governor's strategic emphases in	• limited involvement of faculty members outside of chemistry • limited visibility on campus	• fully implement the shift in focus from training to research • expand internal and external partnerships and broaden the disciplinary expertise involved in center activity • review the center's name, adjust it if appropriate, and assure its consistent

Overview and Purpose of Center or Institute	Strengths	Challenges	Action Recommendations
early funding from the National Institute of Justice supported this function. In recent years, however, forensic science research has become a national priority and federal funding opportunities have likewise shifted in this direction. Fortunately, the center is well positioned to make this transition and vastly enhance its scholarly contributions to this high-demand and interdisciplinary field. As such, it will continue to support State University System initiatives in security and emergency services as well as STEM areas.	the areas of STEM as well as security and emergency services • internal and external partnership opportunities • connection to M.S. in forensic science degree program • student engagement in center activities, including a high percentage of female students • line-item base funding • quality of facilities		use (e.g., in state reporting, grant applications, publications, marketing materials)
Office of Research and Commercialization			
Advanced Materials Processing and Analysis Center			
Formally recognized as a research center by the State of Florida, the Advanced Materials and Processing Analysis Center (AMPAC) strives to excel in the development, processing, and characterization of advanced materials. The center seeks national prominence in targeted research areas that include energy, composites, and microelectronics, as well as medical and laser materials technology by providing facility, faculty member, and student support to the College of Engineering and Computer Science, the College of Optics and Photonics, the College of Sciences, the Burnett College of Biomedical Sciences, and related disciplines. AMPAC has created a well-educated workforce through its participation in the master's and doctoral degree programs in materials science and engineering.	• industrial partnerships that serve as a substantial funding source • external contract and grant funding • center contributions toward developing high-quality materials science graduate programs • several spin-off companies created through the center's activities	• tension between the center and the Department of Materials Science and Engineering (MSE) • limited space and other resources	• create an industrial affiliates program similar to CREOL's program • increase interactions between local industry and the Materials Characterization Facility to enhance access to expanded resources • work with appropriate parties to review the relationship between AMPAC and MSE and make appropriate adjustments • explore options to expand access to cleanrooms and improve operations

Overview and Purpose of Center or Institute	Strengths	Challenges	Action Recommendations
AMPAC has also formed synergistic partnerships with industries and government organizations and built a reputation of research excellence through its creative and outstanding faculty members and research facilities. Collaborations with other universities, government agencies, and private industries are also encouraged.			
Center for Research and Education in Optics and Lasers			
The Center for Research in Optics and Photonics (CREOL) and UCF's College of Optics and Photonics synonymously exist as a world leader in education, research, and industrial partnerships. CREOL's mission is to: (1) provide the highest quality graduate education in optics and photonics; (2) provide the best fundamental and applied research results to the scientific and engineering communities to enable the development of knowledge-based and technology-based industries; (3) to enhance optics and photonics education at all levels; (4) to aid the development of Florida and the nation's technology-based industries; (5) to partner with industry to meet the research and educational goals of the college. <u>Note:</u> CREOL, the College of Optics and Photonics, is widely recognized as having one of the best optics education programs in the world. Its graduate degree programs were reviewed according to the legislatively mandated academic program review process undertaken simultaneously with the center review. The	• national and international visibility • faculty member reputation and research productivity • economic development driver as measured by employment of graduates, patents, and start-up companies	• difficulty hiring new or replacement faculty members due to ongoing budget reductions • shortage of faculty strengths in applied optics, imaging systems, and biophotonics • limited space for expanding laboratories and faculty offices that inhibits the ability to add additional program areas • limited gender and ethnic diversity among faculty members • insufficient support for cleanroom facilities and no dedicated cleanroom technician • perceived benefits inequities among some research scientists • perceived lack of	• develop and implement a plan to address human resource needs that considers current and future resources • cultivate new industry and alumni relations to support center research initiatives (e.g., endowed chair funding) • explore options to address current and anticipated space needs • develop and implement a plan to enhance faculty ethnic and gender diversity; consider pursuing grants to bolster this area (e.g., Graduate Assistance in Areas of National Need grants from the U.S. Department of Education, funding for Research Experiences for Undergraduates) • explore options to enhance support for cleanroom facilities • work with other programs and offices, as appropriate, to identify mechanisms to facilitate collaborative activities • review perceived inequities with

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Overview and Purpose of Center or Institute	Strengths	Challenges	Action Recommendations
degree program review results were reported according to the Board of Governor's requirements. As such, this report primarily focuses on CREOL's research and development as well as its community outreach functions.		opportunities for research scientist career advancement	regard to research scientist benefits and respond as appropriate • enhance communication of opportunities for research scientist career progression