



UNIVERSITY OF CENTRAL FLORIDA

**Board of Trustees Meeting
Educational Programs Committee
May 24, 2018
9:45 a.m. – 10:30 a.m.
FAIRWINDS Alumni Center
Conference call in phone number 800-442-5794, passcode 463796**

AGENDA

I. CALL TO ORDER

Robert Garvy
Chair, Educational Programs Committee

II. ROLL CALL

Gwen Ransom
*Executive Administrative Assistant to
Dr. Paige Borden*

III. MEETING MINUTES

- [Approval](#) of the March 22, 2018,
Educational Programs Committee
meeting minutes
- Robert Garvy

IV. NEW BUSINESS

- 2018 Tenure Recommendations
[\(EPC-1\)](#)
- Elizabeth Dooley
*Interim Provost
Vice Provost for Teaching and Learning and
Dean, College of Undergraduate Studies and
Professor, College of Education and Human Performance*
- Jana Jasinski
*Interim Vice Provost for Faculty Excellence
Pegasus Professor of Sociology and
Associate Dean, College of Sciences*
- 2018 Tenure with Hire
[\(EPC-2\)](#)
- Jana Jasinski

- 2018 Accountability Plan
(EPC-3)
M. Paige Borden
*Associate Provost for Academic Program Quality and
Associate Vice President for Institutional
Knowledge Management*
- 2018 Improvement Plan for
Four-year Graduation Rate (EPC-4)
M. Paige Borden
- Provost Update
Elizabeth Dooley
- Faculty Spotlight (INFO-1)
Konstantin Vodopyanov
*21st Century Scholar Chair and Professor of Optics,
Photonics, and Physics*

V. OTHER BUSINESS



UNIVERSITY OF CENTRAL FLORIDA

MINUTES
Board of Trustees
Educational Programs Committee
March 22, 2018
Fairwinds Alumni Center

CALL TO ORDER

Trustee Robert Garvy, chair of the Educational Programs Committee, called the meeting to order at 10:15 a.m. Committee members Ken Bradley, Beverly Seay, and Bill Self were present. Chairman Marcos Marchena, trustees Joseph Conte, Alex Martins, and William Yeargin were present, and trustee John Sprouls joined the meeting via teleconference call.

MINUTES

The January 18, 2018, meeting minutes were approved as written.

NEW BUSINESS

Conferral of Degrees (EPC-1)

Dale Whittaker, Provost and Executive Vice President, requested approval for the spring 2018 conferral of degrees. A motion to recommend the conferral of degrees received unanimous approval.

Proposed Academic Year Calendar (EPC-2a-2b)

DeLaine Priest, Associate Vice President, Student Success, presented the 2019-20 and 2020-21 proposed academic calendars for approval. Both calendars were reviewed and approved by the UCF Academic Calendar Committee and meet the minimum requirement of classroom instruction days required by state regulations. A motion to recommend the 2019-20 and 2020-21 proposed academic calendars received unanimous approval.

New Degree Programs (EPC-3a-3d)

Elizabeth Klonoff, Vice President for Research and Dean of the College of Graduate Studies, presented three proposed new degree programs: Doctorate in Social Work, Ph.D. Degree in Strategic Communications, and Master of Science Degree in Emergency and Crisis Management. A motion to recommend these new degree program proposals received unanimous approval.

Elizabeth Dooley, Dean of the College of Undergraduate Studies and Vice Provost for Teaching and Learning, presented the proposed bachelor of arts and bachelor of science degree programs in emergency management. A motion to recommend these new degree programs received unanimous approval.

Digital Learning Course Redesign (INFO-1)

Thomas Cavanagh, Vice Provost for Digital Learning, updated the board on Digital Learning Course Redesign.

In November 2017, the Board of Trustees approved the investment of university resources in a strategic digital learning course redesign initiative. The intent is to leverage online, blended, adaptive, and active learning to make an impact in critical areas of strategic importance. The goal of this initiative is to impact student learning by increasing successful course completion (reduced DFW rates), particularly in general education and STEM courses, and to improve FTIC and transfer student persistence.

2015-16 Academic Program Review (INFO-2)

Recommendation Implementation Update – Modeling and Simulation Follow-up.

As follow-up to the January 18, 2018, Educational Programs Committee, Dr. Paige Borden, Associate Provost and Associate Vice President, provided the board with an update on the recommendations' tracking sheet and requested enhancements related to completion estimate. Dr. Elizabeth Klonoff provided an update report on the status of the 24 recommendations for the College of Graduate Studies Modeling and Simulation Master of Science and Ph.D. degree programs.

Provost's Update

- **Faculty Spotlight (INFO-3)**

Provost Whittaker introduced Dr. Melanie Coathup, Professor of Medicine, College of Medicine. Dr. Coathup leads the university's Prosthetic Interfaces faculty research cluster. Dr. Coathup introduced her work and gave examples of how research has led to both governmental funding and collaboration with industry and how the work has translated to patients.

- **State College of Florida – Notice of Intent – New Baccalaureate Degree (INFO-4)**

Provost Whittaker informed the trustees of a memorandum received by Florida Board of Governors from the Chancellor of the Florida College System, notifying that State College of Florida, Manatee-Sarasota submitted a Notice of Intent to develop a proposal for offering a new baccalaureate degree program. There were no objections to the proposed degree or alternative proposals for consideration.

Chairman Garvy adjourned the meeting at 11:50 a.m.

Respectfully submitted: _____

Elizabeth Dooley
Interim Provost

Date

ITEM: EPC-1

**University of Central Florida
BOARD OF TRUSTEES**

SUBJECT: 2018 Tenure Recommendations

DATE: May 24, 2018

PROPOSED BOARD ACTION

Approval of tenure for faculty members whose names are included on the attached list.

BACKGROUND INFORMATION

The UCF tenure process requires that faculty members must seek tenure by the end of their sixth year of employment. The tenure procedure requires review by the promotion and tenure committee, department chair, college promotion and tenure committee, college dean, university promotion and tenure committee, the provost, and president. Their recommendations are submitted to the Board of Trustees for final approval.

Supporting documentation: Attachment A: 2018 Tenure Recommendations

Prepared by: Jana L. Jasinski, Interim Vice Provost for Faculty Excellence. Pegasus Professor Of Sociology and Associate Dean, College of Sciences

Submitted by: Elizabeth A. Dooley, Interim Provost and Vice Provost for Teaching and Learning, Dean, College of Undergraduate Studies and Professor, College of Education and Human Performance

Attachment A

2018 Recommendations

College/Unit	Name	Current Rank
College of Arts and Humanities		
Modern Languages and Literatures	Francisco Fernandez-Rubiera	Assistant Professor
Philosophy	Ann Gleig	Assistant Professor
Writing and Rhetoric	Natasha Jones	Assistant Professor
Philosophy	Lanlan Kuang	Assistant Professor
Music	Kelly Miller	Assistant Professor
School of Visual Arts and Design	Wanda Raimundi-Ortiz	Assistant Professor
Writing and Rhetoric	Angela Rounsaville	Assistant Professor
School of Visual Arts and Design	Anastasia Salter	Assistant Professor
College of Business Administration		
Economics	Sami Alpanda	Assistant Professor
Management	Craig Crossley	Assistant Professor
Accounting	Yu Tian	Assistant Professor
College of Education and Human Performance		
Educational and Human Sciences	David Fukuda	Assistant Professor
College of Engineering and Computer Science		
Electrical and Computer Engineering	George Atia	Assistant Professor
Mechanical and Aerospace Engineering	Jeffrey Kauffman	Assistant Professor
Mechanical and Aerospace Engineering	Shawn Putnam	Assistant Professor
Mechanical and Aerospace Engineering	Subith Vasu Sumathi	Assistant Professor
Industrial Engineering and Management Systems	Qipeng Zheng	Assistant Professor
College of Health and Public Affairs		
Criminal Justice	Thomas Baker	Assistant Professor
Health Professions	William Hanney	Assistant Professor
Health Management and Informatics	Xinliang Liu	Assistant Professor
School of Public Administration	Staci Zavattaro	Associate Professor
College of Medicine		
Burnett School of Biomedical Sciences	Kyle Rohde	Assistant Professor
College of Optics and Photonics		
Optics and Photonics	Romain Gaume	Assistant Professor
Optics and Photonics	Mercedeh Khajavikhan	Assistant Professor

Attachment A

2018 Recommendations

College/Unit	Name	Current Rank
Rosen College of Hospitality Management		
Hospitality Services	Edwin Torres Areizaga	Assistant Professor
Food Services and Lodging Management	Amy Gregory	Assistant Professor
Tourism, Events and Attractions	Mathilda Van Niekerk	Assistant Professor
College of Sciences		
Communication	Melissa Dodd	Assistant Professor
Sociology	Amy Donley	Assistant Professor
Sociology	Melanie Hinojosa	Assistant Professor
Anthropology	Brigitte Kovacevich	Assistant Professor
Biology	Katherine Mansfield	Assistant Professor
Political Science	Jonathan Powell	Assistant Professor
Communication	Bridget Rubenking	Assistant Professor
Mathematics	Zhisheng Shuai	Assistant Professor
Chemistry	Karin Chumbimuni Torres	Assistant Professor
Chemistry	Yu Yuan	Assistant Professor

ITEM: EPC-2

EDUCATIONAL PROGRAMS COMMITTEE
University of Central Florida

SUBJECT: 2018 Tenure with Hire

DATE: May 24, 2018

PROPOSED BOARD ACTION

Approval of tenure with hire.

BACKGROUND INFORMATION

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.

Supporting documentation: Attachment A: Tenure with Hire Justification

Prepared by: Jana L. Jasinski, Interim Vice Provost for Faculty Excellence. Pegasus Professor Of Sociology and Associate Dean, College of Sciences

Submitted by: Elizabeth A. Dooley, Interim Provost and Vice Provost for Teaching and Learning, Dean, College of Undergraduate Studies and Professor, College of Education and Human Performance

Attachment A

**Tenure with Hire Justification
Board of Trustees
May 24, 2018**

**Dr. Sheila Amin Gutiérrez de Piñeres, Professor
College of Health and Public Affairs, School of Public Administration and
Dean, Burnett Honors College**

Dr. Sheila Piñeres received her Ph.D. degree in economics from Duke University. She comes to UCF from Austin College, where she is a tenured professor of economics, as well as Executive Vice-President of Academic Affairs and Special Initiatives and Dean of Faculty. At UCF, she will serve as dean of the Burnett Honors College. Dr. Piñeres has much experience in higher education leadership, including public policy program head at the University of Texas at Dallas. She has publications in political economy, public policy, and public administration journals, among others. She has received several awards on her teaching, including the University of Texas System Regents' Outstanding Teaching Award. The School of Public Administration and College of Health and Public Affairs support the recommendation for tenure with hire.

ITEM: EPC-3

EDUCATIONAL PROGRAMS COMMITTEE
University of Central Florida

SUBJECT: 2018 Accountability Plan

DATE: May 24, 2018

PROPOSED BOARD ACTION

Approval of 2018 Accountability Plan

BACKGROUND INFORMATION

This is a new report that combines the previous Annual Accountability Report and the University Work Plans into one document that more closely aligns with the Board of Governors' 2025 System Strategic Plan.

The revised document will enhance the System's commitment to accountability and strategic planning by enabling comparisons between past goals and actual data to better assess performance. This change will help foster greater coordination between institutional administrators, University Boards of Trustees, and the Board of Governors.

Once each institution's respective Board of Trustees approves an Accountability Plan, the Board of Governors will review and consider the plan's narrative strategy, metric goals and enrollment plans for potential acceptance of 2016-17 components. The Board's acceptance of this Accountability Plan does not constitute approval of any particular component, nor does it supersede any necessary approval processes that may be required for each component.

Supporting documentation: Attachment A: 2018 Accountability Plan

Prepared by: M. Paige Borden, Associate Provost for Academic Program Quality and
Associate Vice President for Institutional Knowledge Management

Submitted by: Elizabeth A. Dooley, Interim Provost and Vice Provost for Teaching and
Learning, Dean, College of Undergraduate Studies and Professor,
College of Education and Human Performance

Attachment A

2018 Accountability Plan

UNIVERSITY OF CENTRAL FLORIDA

PENDING BOT APPROVAL



STATE UNIVERSITY SYSTEM *of* FLORIDA
Board of Governors

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

INTRODUCTION

This is a new report that combines the previous Annual Accountability Report and University Work Plans into one new document that is more closely aligned with the Board of Governors' 2025 System Strategic Plan.

This revised document will enhance the System's commitment to accountability and strategic planning by enabling comparisons between past goals and actual data to better assess performance. This change will help foster greater coordination between institutional administrators, University Boards of Trustees and the Board of Governors.

Once an Accountability Plan is approved by each institution's respective Boards of Trustees, the Board of Governors will review and consider the plan's narrative strategy, metric goals and enrollment plans for potential acceptance of 2016-17 components. Longer-term components will inform future agendas of the Board's Strategic Planning Committee. The Board's acceptance of this Accountability Plan does not constitute approval of any particular component, nor does it supersede any necessary approval processes that may be required for each component (e.g., new academic programs).

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

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2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

MISSION STATEMENT (What is your purpose?)

The University of Central Florida is a public, multi-campus, metropolitan research university, dedicated to serving its surrounding communities with their diverse and expanding populations, technological corridors, and international partners. The mission of the university is to offer high-quality undergraduate and graduate education, student development, and continuing education; to conduct research and creative activities; and to provide services that enhance the intellectual, cultural, environmental, and economic development of the metropolitan region, address national and international issues in key areas, establish UCF as a major presence, and contribute to the global community.

VISION STATEMENT (What do you aspire to?)

We use the power of scale and the pursuit of excellence to solve tomorrow's greatest challenges and to make a better future for our students and society. Through learning, discovery, and partnerships, we transform lives and livelihoods.

STATEMENT OF STRATEGY (How will you get there?)

Given your mission, vision, strengths and available resources, provide a brief description of your market and your strategy for addressing and leading it.

In the Collective Impact plan, UCF has defined five strategic areas of focus:

- 1. Harness the power of scale to transform lives and livelihoods.** Serving a fast-growing region and state, UCF has demonstrated that maximizing a research university's impact is a function of both size and excellence, and UCF will continue to pursue both to fulfill its mission.
- 2. Attract and cultivate exceptional and diverse faculty, students, and staff whose collective contributions strengthen us.** Believing that talent is at the core of its pursuit of excellence, UCF will aggressively continue to be a magnet for diverse and excellent individuals throughout the university.
- 3. Deploy our distinctive assets to solve society's greatest challenges.** UCF and the region have unique capabilities and needs, and the university will focus on finding and developing solutions for Florida and our broader world.
- 4. Create partnerships at every level that amplify our academic, economic, social, and cultural impact and reputation.** Continuing its commitment to being "America's leading partnership university," UCF will extend its impact through local, national, and international partnerships and continue to build its reputation of excellence.
- 5. Innovative academic, operational and financial models to transform higher education.** As a younger institution with fewer historical constraints, UCF has and will continue to develop new models for how to provide high quality education and research to meet today's needs that can become models for others.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

STRENGTHS AND OPPORTUNITIES *(within 3 years)**What are your core capabilities, opportunities and challenges for improvement?***Strengths:**

High student retention, progression, and graduation rates; M.D. program and supporting initiatives; graduate study and research in traditional and emerging disciplines; expansion of DirectConnect to UCF program partners to include Enhanced Partnerships with other two-year Florida colleges; university efficiencies in utilities, maintenance, and property management; and ample opportunities for academic community engagement and partnerships.

Opportunities:

Continuing construction of the UCF Downtown campus for a Fall 2019 opening to create a hub for digital media, communications, and community, facing disciplines; construction of a new teaching hospital for College of Medicine and creation of an Academic Health Sciences Center; increase quality and efficiencies of student success through partnership and collaboration in the University Innovation Alliance and the Florida Consortium for Metropolitan Research Universities; continue to increase additional tenure-track and tenured faculty members to enhance educational quality and research output.

Challenges:

Constrained academic and research space, along with high transfer population resulting in a greater proportion of major-specific course offerings that are more costly than general education course work. Shifting metrics and targets within the performance-based funding and preeminence models are also a challenge.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

KEY INITIATIVES & INVESTMENTS *(within 3 years)*

Describe your top three key initiatives for the next three years that will drive improvement in Academic Quality, Operational Efficiency, and Return on Investment.

1. Faculty Size and Excellence: Hire additional full-time faculty members in areas of specific focus (e.g. STEM, areas of strategic programmatic emphasis, and emerging fields). Hiring full-time faculty members enhances the undergraduate and graduate academic experience by ensuring the availability of course offerings to meet student demand, decreasing class size, increasing student engagement, supporting undergraduate and graduate research, and stabilizing UCF's student-to-faculty ratio. An emphasis on hiring tenured and tenure-track faculty members addresses the overall mix of faculty members while boosting UCF's growing research promise and economic impact. 2020 target is to grow tenured and tenure-track faculty members by 25 percent and increase the percentage of full-time faculty in academic units to 65 percent.

2. Research and graduate activity: Increase graduate degree program breadth, interdisciplinarity, and quality while enhancing the volume and impact of UCF research. Increasing graduate activity supports the emerging preeminence of UCF's graduate enterprise and supports the university in enhancing its Carnegie Classification as a "Doctoral University: Highest Research Activity" institution. To ensure continued growth and quality, UCF plans to expand and enhance programs in focused areas. This will include the hiring of research-intensive faculty members and essential staff members, the expansion of biomedical and clinical research, the development of additional graduate medical education programs, and the development of new health-related programs that capitalize on College of Medicine partnerships. Increasing graduate activity also furthers the volume and economic impact of UCF research, building upon the \$1.3 billion in external research grants received in the past decade. 2020 target is \$250 million in research grants.

3. Student Success: Expansion of existing programs and implementation of new efforts to increase retention and graduation rates. Harnessing predictive analytics, updated advising software, and focusing on program mapping and tracking to find appropriate pathways for student success are several of the initiatives allowing UCF to shift from cohort-based approaches to individualized student interventions that can predict and prevent certain student failures before they happen. Expected outcomes for these efforts are increased retention and graduation rates, shortened time to degree, and reduced excess credit hours. 2020 target is to achieve a 92 percent retention rate (meeting the preeminence benchmark of GTE 90 percent) and a 50 percent four-year graduation rate.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

Key Achievements for 2016-17

STUDENT ACHIEVEMENTS

1. The College of Engineering and Computer Science Programming Team earned the title of national champions and finished 13th in the world at the Association for Computing Machinery and the International Collegiate Programming Contest. The college's Cyber Defense Team placed 3rd at the 2017 Global Cyberlympics World Finals in Netherlands.
2. The College of Business Administration Professional Selling Team placed 1st at the 2017 National Collegiate Sales Competition and 8th internationally.
3. Political Science senior Amber Mariano became the youngest person ever elected to the Florida House of Representatives.

FACULTY ACHIEVEMENTS

1. Engineering and Computer Science professor Issa Batarseh was inducted into the Florida Inventors Hall of Fame in recognition of inventions that have impacted the Florida economy.
2. College of Sciences Physics professor Humberto Campins served on the Science Team of NASA's OSIRIS-Rex spacecraft mission, which launched from the Kennedy Space Center in September.
3. College of Health and Public Affairs professor Ana Leon was selected as 2017 Social Work Educator of the year for both Central Florida and Florida by the National Association of Social Workers.

PROGRAM ACHIEVEMENTS

1. The College of Nursing was ranked a best graduate nursing program by *U.S. News & World Report*.
2. The Interactive Entertainment Master of Science program in the College of Arts and Humanities was ranked 2nd in Graduate Game Design Programs in North America by the *Princeton Review*.
3. UCF Online and the university's distributed education programs were ranked 1st for the best online college by *BestColleges.com*.

RESEARCH ACHIEVEMENTS

1. UCF researchers received \$136.1 million in funded contracts and grants.
2. UCF partnered with Osceola County and the Florida High Tech Corridor to open the Florida Advanced Manufacturing Research Center, now called BRIDG.
3. UCF supported the U.S. Department of Energy by accelerating the introduction of affordable, scalable, and sustainable high-performance alternative fuels and received research grants totaling \$1.25 million to support this effort.

INSTITUTIONAL ACHIEVEMENTS

1. UCF ranked 2nd among Florida's state universities and 11th nationally among public universities with enrollment of 77 freshman National Merit Scholars.
2. UCF's diversity was recognized by the Hispanic Association of Colleges and Universities with the Outstanding Associate Member of the Year Award and also received a Higher Education Excellence in Diversity Award from *Insight into Diversity*.
3. UCF was named one of the top 20 colleges with the best Career Services by *U.S. News & World Report*.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

PERFORMANCE BASED FUNDING METRICS

1. Percent of Bachelor's Graduates Enrolled or Employed (\$25,000+)

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
ACTUAL	.	64.3	65.1	66.2	67.9	.	.	.	.
APPROVED GOALS	.	.	.	65	67.2	67.5	68.1	68.6	.
PROPOSED GOALS	68.5	69.1	69.5	69.9

2. Median Wages of Bachelor's Graduates Employed Full-time

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
ACTUAL	33,700	34,900	37,000	38,600	38,700	.	.	.	.
APPROVED GOALS	.	.	.	36,600	39,100	39,700	40,200	40,600	.
PROPOSED GOALS	.	.	.	.	.	39,700	40,200	40,600	41,100

Note: Beginning with the 2013-14 graduating class, the Board approved a change to this metric that uses wage data from all states that participate in the Wage Record Interchange System 2 (known as "WRIS 2").

3. Average Cost to the Student [Net Tuition & Fees per 120 Credit Hours for Resident Undergraduates]

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	.	16,260	15,330	15,390	16,030	.	.	.	.
APPROVED GOALS	15,120	15,000	14,970	14,750	.
PROPOSED GOALS	15,968	15,905	15,843	15,781

4. FTIC Four-Year Graduation Rate [Full-time students only]

	2009-13	2010-14	2011-15	2012-16	2013-17	2014-18	2015-19	2016-20	2017-21
ACTUAL	40.5	40.0	40.3	43.6	43.8	.	.	.	.
APPROVED GOALS	.	.	.	42	45	46	48	50	.
PROPOSED GOALS	.	.	.	.	.	44.7	46.0	47.8	50.1

5. Academic Progress Rate [Second Year Retention Rate with At Least a 2.0 GPA]

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	84.9	85.0	86.6	86.5	87.3	.	.	.	.
APPROVED GOALS	.	.	.	88	87.4	88.8	89.4	90.0	.
PROPOSED GOALS	.	.	.	.	.	87.9	88.5	89.2	90.0

Note: Dots (".") are used when data is not available for a given metric for a specific year. For more information about the PBF model visit: http://www.flbog.edu/about/budget/performance_funding.php.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

PERFORMANCE BASED FUNDING METRICS (CONTINUED)

6. Percentage of Bachelor's Degrees Awarded within Programs of Strategic Emphasis

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	46.2	48.9	49.7	52.0	51.9	.	.	.	.
APPROVED GOALS	.	.	.	50	52.5	53.1	53.5	54.0	.
PROPOSED GOALS	.	.	.	.	.	52.5	53.0	53.4	53.8

7. University Access Rate [Percent of Undergraduates with a Pell grant]

	FALL 2012	FALL 2013	FALL 2014	FALL 2015	FALL 2016	FALL 2017	FALL 2018	FALL 2019	FALL 2020
ACTUAL	38.1	38.5	39.4	39.8	39.4	.	.	.	.
APPROVED GOALS	.	.	.	40	40.2	40.6	41.3	41.7	.
PROPOSED GOALS	.	.	.	.	.	40.0	40.6	41.2	41.9

8. Percentage of Graduate Degrees Awarded within Programs of Strategic Emphasis

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	61.2	57.4	61.7	63.4	62.0	.	.	.	.
APPROVED GOALS	.	.	.	62	63.6	64.0	64.3	64.7	.
PROPOSED GOALS	.	.	.	.	.	62.5	63.0	63.4	63.8

9. BOG Choice: Percent of Baccalaureate Degrees Awarded Without Excess Hours

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	67.0	66.9	69.2	66.3	76.4*	.	.	.	.
APPROVED GOALS	.	.	.	69	68	69	70	71	.
PROPOSED GOALS	.	.	.	.	.	76.8	77.3	77.7	78.0

Note*: In 2016-17, UCF improved their data collection for this metric and are therefore not eligible for PBF 'improvement points' this year.

10. BOT Choice: Bachelor's Degrees Awarded Annually [First Majors]

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	12,321	12,372	12,629	12,832	13,071	.	.	.	.
APPROVED GOALS	.	.	.	12,850	13,190	13,550	13,930	14,320	.
PROPOSED GOALS	.	.	.	.	.	13,330	13,600	13,870	14,150

Note: Dots ('.') are used when data is not available for a given metric for a specific year. For more information about the PBF model visit: http://www.flbog.edu/about/budget/performance_funding.php.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

PREEMINENT RESEARCH UNIVERSITY FUNDING METRICS

1a. Average GPA

	FALL 2013	FALL 2014	FALL 2015	FALL 2016	FALL 2017	FALL 2018	FALL 2019	FALL 2020	FALL 2021
ACTUAL	3.9	3.9	4.0	4.0	4.1	.	.	.	.
APPROVED GOALS	.	.	.	4.0	4.0	4.1	4.1	4.1	.
PROPOSED GOALS	.	.	.	.	.	4.1	4.1	4.1	4.1

1b. Average SAT Score

	FALL 2013	FALL 2014	FALL 2015	FALL 2016	FALL 2017	FALL 2018	FALL 2019	FALL 2020	FALL 2021
ACTUAL	1248	1257	1261	1262	1316*	.	.	.	.
APPROVED GOALS	.	.	.	1263	1265*	1267*	1270*	1272*	.
PROPOSED GOALS	.	.	.	.	.	1318	1320	1321	1322

Note*: SAT scores reflect rescaling to new SAT standards (approved goals were based upon old standard)

2. Public University National Ranking [Top50 rankings based on BOG's official list of publications]

	2014	2015	2016	2017	2018	2019	2020	2021	2022
ACTUAL	1	1	1	2	1	.	.	.	.
APPROVED GOALS	.	.	.	2	2	3	3	4	.
PROPOSED GOALS	.	.	.	.	.	2	3	3	4

3. Freshman Retention Rate [Full-time students as reported to IPEDS]

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	87	88	89	89	89.6	.	.	.	.
APPROVED GOALS	.	.	.	89	90	91	92	92	.
PROPOSED GOALS	.	.	.	.	.	90	91	91	92

4. Six-year Graduation Rate [Full-time students as reported to IPEDS]

	2007-13	2008-14	2009-15	2010-16	2011-17	2012-18	2013-19	2014-20	2015-21
ACTUAL	67	70	70	69	70	.	.	.	.
APPROVED GOALS	.	.	.	70	72	73	74	74	.
PROPOSED GOALS	.	.	.	.	.	71	72	72	73

Note: For more information about the Preeminent model see section 1001.7065 Florida Statutes.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

PREEMINENT RESEARCH UNIVERSITY FUNDING METRICS (CONTINUED)

5. National Academy Memberships

	2014	2015	2016	2017	2018	2019	2020	2021	2022
ACTUAL	1	1	1	6	6	.	.	.	.
APPROVED GOALS	.	.	.	2	7	7	8	8	.
PROPOSED GOALS	.	.	.	.	.	6	7	7	8

6. Science & Engineering Research Expenditures (\$M)

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	109	143	170	188	186	.	.	.	.
APPROVED GOALS	.	.	.	174	194	199	210	218	.
PROPOSED GOALS	.	.	.	.	.	194	201	206	210

7. Non-Medical Science & Engineering Research Expenditures (\$M)

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	105	132	168	180	179	.	.	.	.
APPROVED GOALS	.	.	.	171	186	191	196	201	.
PROPOSED GOALS	.	.	.	.	.	186	192	198	201

8. Number of Broad Disciplines Ranked in Top 100 for Research Expenditures

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
ACTUAL	3 of 8	3 of 8	7 of 8	7 of 8	7 of 8	.	.	.	.
APPROVED GOALS	.	.	.	7 of 8	7 of 8	7 of 8	7 of 8	7 of 8	.
PROPOSED GOALS	.	.	.	.	.	7 of 8	7 of 8	7 of 8	7 of 8

Note: For more information about the Preeminent model see section 1001.7065 Florida Statutes.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

PREEMINENT RESEARCH UNIVERSITY FUNDING METRICS (CONTINUED)

9. Utility Patents Awarded [over three calendar years]

	2011-13	2012-14	2013-15	2014-16	2015-17	2016-18	2017-19	2018-20	2019-21
ACTUAL	205	198	177	184	165	.	.	.	.
APPROVED GOALS	.	.	.	208	192	202	218	230	.
PROPOSED GOALS	.	.	.	.	.	152	138	135	135

10. Doctoral Degrees Awarded Annually

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	280	356	423	440	429	.	.	.	.
APPROVED GOALS	.	.	.	445	455	465	475	485	.
PROPOSED GOALS	.	.	.	.	.	440	455	470	480

11. Number of Post-Doctoral Appointees

	Fall 2010	Fall 2011	Fall 2012	Fall 2013	Fall 2014 OFFICIAL	Fall 2015	Fall 2016	Fall 2017	Fall 2018
ACTUAL	58	65	55	52	47	51	67	.	.
APPROVED GOALS	.	.	.	52	64	68	72	95	.
PROPOSED GOALS	.	.	.	.	.			96	112

Note*: There is a time lag for the count of Post-Doctoral Appointees because statute requires that this data is as reported by the Center for Measuring University Performance in their annual Top American Research Universities (TARU) report.

12. Endowment Size (\$Millions)

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	138.6	154.6	150.7	146.4	157	.	.	.	.
APPROVED GOALS	.	.	.	169	153	161	169	175	.
PROPOSED GOALS	.	.	.	.	.	165	175	182	190

Note: For more information about the Preeminent model see section 1001.7065 Florida Statutes.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

KEY PERFORMANCE INDICATORS

Teaching & Learning Metrics (from the 2025 System Strategic Plan that are not included in the PBF section)**Public University National Ranking** [Number of Top50 Rankings based on BOG's official list of publications]

	2014	2015	2016	2017	2018	2019	2020	2021	2022
ACTUAL	1	1	1	2	1	.	.	.	.
APPROVED GOALS	.	.	.	2	2	3	3	4	.
PROPOSED GOALS	.	.	.	.	.	2	3	3	4

Freshmen in Top 10% of High School Class

	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
ACTUAL	30	31	33	33	31	.	.	.	.
APPROVED GOALS	.	.	.	34	35	36	37	37	.
PROPOSED GOALS	.	.	.	.	.	31	32	32	33

Professional Licensure & Certification Exam First-time Pass Rates

CALENDAR YEAR	2013	2014	2015	2016	2017	2018 GOALS	2019 GOALS	2020 GOALS	2021 GOALS
Nursing	96	98	97	92	96	96	96	96	96
US Average	85	85	87	88	90	.	.	.	.
Medicine (2Y)	99	100	100	100	97	97	97	97	97
US Average	97	96	96	96	96	.	.	.	.
CROSS-YEAR	2012-13	2013-14	2014-15	2015-16	2016-17	2018 GOALS	2019 GOALS	2020 GOALS	2021 GOALS
Medicine (CK)	98	99	99	100	98	97	97	97	97
US Average	98	97	95	96	96	.	.	.	.
Medicine (CS)	95	97	100	99	97	97	97	97	97
US Average	98	96	96	97	96	.	.	.	.
MULTI-YEAR	2011-13	2012-14	2013-15	2014-16	2015-17	2018 GOALS	2019 GOALS	2020 GOALS	2021 GOALS
Physical Therapy	94	93	98	98	100	95	95	95	95
US Average	89	90	91	92	92	.	.	.	.

Exam Scores Relative to Benchmarks

Above or Tied	4	5	5	5	5	5	5	5	5
Below	1	0	0	0	0	0	0	0	0

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

KEY PERFORMANCE INDICATORS (CONTINUED)

Teaching & Learning Metrics

Time to Degree for FTICs in 120hr Programs [in Calendar Years]

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	4.5	4.6	4.4	4.4	4.4	.	.	.	.
APPROVED GOALS	.	.	.	4.3	4.2	4.2	4.1	4.0	.
PROPOSED GOALS	.	.	.	.	.	4.3	4.3	4.2	4.2

Six-Year FTIC Graduation Rates [Full- & Part-time students]

	2007-13	2008-14	2009-15	2010-16	2011-17	2012-18	2013-19	2014-20	2015-21
ACTUAL	67	69	70	68	69	.	.	.	.
APPROVED GOALS	.	.	.	70	71	72	73	74	.
PROPOSED GOALS	.	.	.	.	.	70	71	72	72

Bachelor's Degrees Awarded [First Majors Only]

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	12,321	12,372	12,629	12,832	13,071	.	.	.	.
APPROVED GOALS	.	.	.	12,850	13,190	13,550	13,930	14,320	.
PROPOSED GOALS	.	.	.	.	.	13,330	13,600	13,870	14,150

Graduate Degrees Awarded [First Majors Only]

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	2,587	2,918	2,673	2,682	2,647	.	.	.	.
APPROVED GOALS	.	.	.	2,770	2,700	2,750	2,825	2,950	.
PROPOSED GOALS	.	.	.	.	.	2,670	2,693	2,716	2,739

Percent of Bachelor's Degrees Awarded to African-American & Hispanic Students

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	28	30	31	33	35	.	.	.	.
APPROVED GOALS	.	.	.	32	33	34	35	36	.
PROPOSED GOALS	.	.	.	.	.	36	36	37	37

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

KEY PERFORMANCE INDICATORS (CONTINUED)

Teaching & Learning Metrics

Percentage of Adult (Aged 25+) Undergraduates Enrolled

	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019	Fall 2020	Fall 2021
ACTUAL	21	21	20	20	19	.	.	.	.
APPROVED GOALS	.	.	.	21	21	22	23	23	.
PROPOSED GOALS	.	.	.	.	.	20	20	21	21

Percent of Undergraduate FTE in Online Courses

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	27	28	30	31	33	.	.	.	.
APPROVED GOALS	.	.	.	31	32	33	35	37	.
PROPOSED GOALS	.	.	.	.	.	34	35	37	39

Percent of Bachelor's Degrees in STEM & Health

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	29	30	33	34	35	.	.	.	.
APPROVED GOALS	.	.	.	34	35	36	36	37	.
PROPOSED GOALS	.	.	.	.	.	36	36	37	38

Percent of Graduate Degrees in STEM & Health

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	42	41	44	47	45	.	.	.	.
APPROVED GOALS	.	.	.	45	47	48	48	49	.
PROPOSED GOALS	.	.	.	.	.	48	48	49	50

Scholarship, Research and Innovation Metrics

National Academy Memberships

	2014	2015	2016	2017	2018	2019	2020	2021	2022
ACTUAL	1	1	1	6	6	.	.	.	.
APPROVED GOALS	.	.	.	2	7	7	8	8	.
PROPOSED GOALS	.	.	.	.	.	6	7	7	8

Faculty Awards

	Fall 2011	Fall 2012	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017	Fall 2018	Fall 2019
ACTUAL	4	7	6	7	7	.	.	.	.
APPROVED GOALS	.	.	.	12	8	10	12	14	.
PROPOSED GOALS	.	.	.	.	.	8	10	11	12

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

KEY PERFORMANCE INDICATORS (CONTINUED)

Scholarship, Research and Innovation Metrics

Total Research Expenditures (\$M)

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	127	186	216	242	234	.	.	.	.
APPROVED GOALS	.	.	.	218	271	304	334	367	.
PROPOSED GOALS	.	.	.	.	.	248	269	290	315

Percentage of Research Expenditures Funded from External Sources

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
ACTUAL	69	46	50	49	49	.	.	.	.
APPROVED GOALS	.	.	.	53	50	52	53	54	.
PROPOSED GOALS	.	.	.	.	.	52	53	54	55

Utility Patents Awarded [from the USPTO]

	2013	2014	2015	2016	2017	2018	2019	2020	2021
ACTUAL	52	67	58	59	48	.	.	.	.
APPROVED GOALS	.	.	.	.	65	72	79	83	.
PROPOSED GOALS	.	.	.	.	.	45	45	45	45

Number of Licenses/Options Executed Annually

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
ACTUAL	10	17	23	38	34	.	.	.	.
APPROVED GOALS	.	.	.	31	34	34	36	38	.
PROPOSED GOALS	.	.	.	.	.	34	34	36	36

Number of Start-up Companies Created

	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
ACTUAL	5	3	8	14	9	.	.	.	.
APPROVED GOALS	.	.	.	10	15	16	18	20	.
PROPOSED GOALS	.	.	.	.	.	10	12	14	15

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

KEY PERFORMANCE INDICATORS *(CONTINUED)***Institution Specific Goals**

To further distinguish the university's distinctive mission, the university may choose to provide additional metric goals that are based on the university's own strategic plan.

1. UCF Health Faculty Practice (percent of non-faculty costs covered by practice revenue)

2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
.	55%	56%	58%	75%	100%	100%	100%	100%

2. UCF Lake Nona Medical Center

2014	2015	2016	2017	2018	2019	2020	2021	2022
.	SECURE LAND	HCA PARTNERSHIP	BOG APPROVAL	SECURE PERMITS	BEGIN CONSTRUCT.	CONSTRUCT. CONTINUES	CONSTRUCT. COMPLETED	OPENING

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

ENROLLMENT PLANNING

Actual & Planned Headcount Enrollment by Student Type *(for all students at all campuses)*

	FALL 2013 ACTUAL	FALL 2014 ACTUAL	FALL 2015 ACTUAL	FALL 2016 ACTUAL	FALL 2017 ACTUAL	FALL 2018 PLAN	FALL 2019 PLAN	FALL 2020 PLAN	FALL 2021 PLAN
UNDERGRADUATE									
FTIC (Regular Admit)	23,953	24,355	24,881	25,216	25,937	26,487	27,019	27,558	28,105
FTIC (Profile Admit)	286	335	328	302	352	359	367	374	381
FCS AA Transfers	21,069	21,434	21,897	22,012	21,636	22,076	22,514	22,950	23,393
Other AA Transfers	263	257	325	446	482	492	502	511	521
Post-Baccalaureates	0	527	1,085	1,073	1,066	1,088	1,109	1,131	1,153
Other Undergraduates	5,476	5,376	5,557	6,203	6,935	7,093	7,234	7,374	7,516
Subtotal	51,047	52,284	54,073	55,252	56,408	57,595	58,745	59,898	61,069
GRADUATE									
Master's	5,705	5,415	5,663	5,812	6,359	6,610	6,743	6,903	7,047
Research Doctoral	1,707	1,757	1,724	1,732	1,787	1,828	1,871	1,906	1,940
Professional Doctoral	591	634	625	626	694	710	727	740	753
Subtotal	8,003	7,806	8,012	8,170	8,840	9,148	9,341	9,549	9,740
UNCLASSIFIED									
H.S. Dual Enrolled	25	10	42	34	35	35	35	35	35
Other ¹	695	721	889	879	897	673	760	843	911
Subtotal	720	731	931	913	932	708	795	878	946
TOTAL	59,770	60,821	63,016	64,335	66,180	67,451	68,881	70,325	71,755

Notes: This table reports the number of students enrolled at the university by student type categories. The student type for undergraduates is based on the Type of Student at Time of Most Recent Admission. The student type for graduates is based on the degree that is sought and the student CIP code. Unclassified refers to a student who has not yet been formally admitted into a degree program but is enrolled. (1) 'Other Unclassified' students include Post-Baccalaureates who are not seeking a degree.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

ENROLLMENT PLANNING (CONTINUED)**Actual & Planned FTE Enrollment by Residency & Student Level**

	2012-13 ACTUAL	2013-14 ACTUAL	2014-15 ACTUAL	2015-16 ACTUAL	2016-17 ACTUAL	2017-18 PLAN	2018-19 PLAN	2019-20 PLAN	2020-21 PLAN	2021-22 PLAN
RESIDENT										
LOWER	14,965	14,747	15,208	15,609	15,878	16,173	16,813	17,150	17,482	17,719
UPPER	29,100	28,845	28,797	29,403	29,943	30,565	31,771	32,405	33,030	33,478
GRAD I	4,024	3,828	3,515	3,549	3,651	3,986	4,154	4,249	4,341	4,399
GRAD II	840	849	808	721	680	709	754	772	788	802
TOTAL	48,929	48,270	48,328	49,281	50,152	51,433	53,492	54,576	55,641	56,398
NON-RESIDENT										
LOWER	644	662	816	1,188	1,422	1,712	1,779	1,815	1,850	1,875
UPPER	856	883	975	1,080	1,359	1,734	1,803	1,839	1,874	1,899
GRAD I	486	493	572	603	634	696	726	742	759	769
GRAD II	542	567	623	662	726	762	810	829	846	861
TOTAL	2,528	2,606	2,985	3,533	4,140	4,904	5,118	5,225	5,329	5,404
TOTAL										
LOWER	15,609	15,410	16,024	16,797	17,299	17,884	18,593	18,965	19,332	19,594
UPPER	29,956	29,728	29,772	30,483	31,302	32,299	33,574	34,243	34,904	35,377
GRAD I	4,510	4,321	4,087	4,152	4,285	4,683	4,880	4,992	5,100	5,168
GRAD II	1,382	1,416	1,431	1,383	1,406	1,471	1,564	1,600	1,635	1,663
TOTAL	51,457	50,876	51,313	52,815	54,292	56,337	58,611	59,800	60,971	61,802

Note: Full-time Equivalent (FTE) student is a measure of all instructional activity (regardless of fundability) that is based on the number of credit hours that students enroll. FTE is based on the standard national definition, which divides undergraduate credit hours by 30 and graduate credit hours by 24. Pursuant to section 1013.31, Florida Statutes, Board facilities staff use this data as a key factor in the calculation of facility space needs for university educational plant surveys.

Actual & Planned FTE Enrollment by Method of Instruction *(for all students at all campuses)*

	2012-13 ACTUAL	2013-14 ACTUAL	2014-15 ACTUAL	2015-16 ACTUAL	2016-17 ACTUAL	2017-18 PLAN	2018-19 PLAN	2019-20 PLAN	2020-21 PLAN	2021-22 PLAN
UNDERGRADUATE										
Distance (80-100%)	12,433	12,807	13,559	14,523	15,857	16,946	17,727	18,617	19,608	20,459
Hybrid (50-79%)	3,054	3,208	3,644	4,158	4,626	5,174	5,378	5,650	5,858	6,008
Classroom (0-50%)	30,078	29,124	28,593	28,599	28,119	28,064	27,997	27,899	27,742	27,751
Subtotal	45,565	45,139	45,796	47,280	48,602	50,184	51,102	52,166	53,208	54,218
GRADUATE										
Distance (80-100%)	1,707	1,594	1,539	1,590	1,772	2,216	2,298	2,369	2,424	2,580
Hybrid (50-79%)	645	683	666	641	641	603	618	639	660	674
Classroom (0-50%)	3,504	3,461	3,313	3,304	3,277	3,335	3,392	3,436	3,509	3,480
Subtotal	5,892	5,738	5,518	5,535	5,691	6,154	6,308	6,444	6,593	6,734

Note: Full-time Equivalent (FTE) student is a measure of instructional activity (regardless of fundability) that is based on the number of credit hours that students enroll. FTE is based on the standard national definition, which divides undergraduate credit hours by 30 and graduate credit hours by 24. Distance Learning is a course in which at least 80 percent of the direct instruction of the course is delivered using some form of technology when the student and instructor are separated by time or space, or both (per 1009.24(17), F.S.). Classroom/Traditional, is a course in which less than 50% of the direct instruction of the course is delivered using some form of technology when the student and instructor are separated by time, space or both. This designation can include activities that do not occur in a classroom (ie, labs, internships, practica, clinicals, labs, etc) – see SUDS data element #2052.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

ACADEMIC PROGRAM COORDINATION

New Programs For Consideration by University in AY 2018-19

The S.U.S. Council of Academic Vice Presidents (CAVP) Academic Program Coordination Work Group will review these programs as part of their on-going coordination efforts. The programs listed below are based on the 2017 Work Plan list for programs under consideration for 2018-20.

PROGRAM TITLES	CIP CODE 6-digit	AREA OF STRATEGIC EMPHASIS	OTHER UNIVERSITIES WITH SAME PROGRAM	OFFERED VIA DISTANCE LEARNING IN SYSTEM	PROJECTED ENROLLMENT <i>in 5th year</i>	PROPOSED DATE OF SUBMISSION TO UBOT
BACHELOR'S PROGRAMS						
Life Care Management	51.0718	HLTH	-	Y	340	Nov-2018
MASTER'S, SPECIALIST AND OTHER ADVANCED MASTER'S PROGRAMS						
Cognitive Sciences	30.2505	STEM	-	N	50	Jul-2018
Systems Engineering	14.2701	STEM	-	Y	30	Nov-2018
DOCTORAL PROGRAMS						
Aerospace Engineering	14.0201	STEM	UF	N	30	Jul-2018
Biomedical Engineering	14.0501	STEM, HLTH	UF, FIU, USF, FSU, FAMU	N	15	Nov-2018
Nanoscience & Nanotechnology	15.1601	STEM	-	N	40	Nov-2018

New Programs For Consideration by University in 2019-21

These programs will be used in the 2017-18 Accountability Plan list for programs under consideration for 2019-20.

PROGRAM TITLES	CIP CODE 6-digit	AREA OF STRATEGIC EMPHASIS	OTHER UNIVERSITIES WITH SAME PROGRAM	OFFERED VIA DISTANCE LEARNING IN SYSTEM	PROJECTED ENROLLMENT <i>in 5th year</i>	PROPOSED DATE OF SUBMISSION TO UBOT
BACHELOR'S PROGRAMS						
Data Sciences	30.0801	STEM	-	N	250	Nov-2020
Molecular & Cellular Biology	26.0406	STEM	UF, USF	N	400	Nov-2019
Molecular Microbiology	26.0503	STEM	UF, USF	N	75	Nov-2019
Neuroscience	26.0608	STEM	FSU	N	400	Nov-2019
MASTER'S, SPECIALIST AND OTHER ADVANCED MASTER'S PROGRAMS						
Computer Vision	11.0102	STEM	-	N	30	Nov-2019
Financial Technology	52.1399	STEM	-	N	36	Mar-2019
Travel Technology & Analytics	30.3001	STEM, GLB	UF	Y	150	Nov-2019
DOCTORAL PROGRAMS						
Interdisciplinary Studies	30.0000	STEM, HLTH, GLB	-	Y	10	Nov-2019
Interdisciplinary - Neuroscience	26.1501	STEM	FSU	Y	50	Nov-2019
Sustainable Coastal Systems	30.3301	STEM	-	N	24	Nov-2019

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

Performance Based Funding

1. Percent of Bachelor's Graduates Enrolled or Employed (\$25,000+)

One Year After Graduation

This metric is based on the percentage of a graduating class of bachelor's degree recipients who are enrolled or employed (earning at least \$25,000) somewhere in the United States. Students who do not have valid social security numbers and are not found enrolled are excluded. This data now includes non-Florida data from 41 states and districts, including the District of Columbia and Puerto Rico. Sources: State University Database System (SUDS), Florida Education & Training Placement Information Program (FETPIP) and Florida Department of Economic Opportunity (DEO) analysis of Wage Record Interchange System (WRIS2) and Federal Employment Data Exchange (FEDES), and National Student Clearinghouse (NSC).

2. Median Wages of Bachelor's Graduates Employed Full-time

One Year After Graduation

This metric is based on annualized Unemployment Insurance (UI) wage data from the fourth fiscal quarter after graduation for bachelor's recipients. This data does not include individuals who are self-employed, employed by the military, those without a valid social security number, or making less than minimum wage. This data now includes non-Florida data from 41 states and districts, including the District of Columbia and Puerto Rico. Sources: State University Database System (SUDS), Florida Education & Training Placement Information Program (FETPIP) and Florida Department of Economic Opportunity (DEO) analysis of Wage Record Interchange System (WRIS2) and Federal Employment Data Exchange (FEDES), and National Student Clearinghouse (NSC).

3. Cost to the Student

Net Tuition & Fees
for Resident Undergraduates
per 120 Credit Hours

This metric is based on resident undergraduate student tuition and fees, books and supplies as calculated by the College Board (which serves as a proxy until a university work group makes an alternative recommendation), the average number of credit hours attempted by students who were admitted as FTIC and graduated with a bachelor's degree for programs that requires 120 credit hours, and financial aid (grants, scholarships and waivers) provided to resident undergraduate students (does not include unclassified students). Source: State University Database System (SUDS), the Legislature's annual General Appropriations Act, and university required fees.

4. Four Year FTIC Graduation Rate

This metric is based on the percentage of first-time-in-college (FTIC) students who started in the Fall (or summer continuing to Fall) term and were enrolled full-time in their first semester and had graduated from the same institution by the summer term of their fourth year. FTIC includes 'early admits' students who were admitted as a degree-seeking student prior to high school graduation. Source: State University Database System (SUDS).

5. Academic Progress Rate

2nd Year Retention
with 2.0 GPA or Above

This metric is based on the percentage of first-time-in-college (FTIC) students who started in the Fall (or summer continuing to Fall) term and were enrolled full-time in their first semester and were still enrolled in the same institution during the Fall term following their first year with had a grade point average (GPA) of at least 2.0 at the end of their first year (Fall, Spring, Summer).
Source: State University Database System (SUDS).

6. University Access Rate Percent of Undergraduates with a Pell-grant

This metric is based the number of undergraduates, enrolled during the fall term, who received a Pell-grant during the fall term. Unclassified students, who are not eligible for Pell-grants, were excluded from this metric.
Source: State University Database System (SUDS).

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UNIVERSITY OF CENTRAL FLORIDA

7. Bachelor's Degrees within Programs of Strategic Emphasis	<p>This metric is based on the number of baccalaureate degrees awarded within the programs designated by the Board of Governors as 'Programs of Strategic Emphasis'. A student who has multiple majors in the subset of targeted Classification of Instruction Program codes will be counted twice (i.e., double-majors are included).</p> <p>Source: State University Database System (SUDS).</p>
8a. Graduate Degrees within Programs of Strategic Emphasis	<p>This metric is based on the number of graduate degrees awarded within the programs designated by the Board of Governors as 'Programs of Strategic Emphasis'. A student who has multiple majors in the subset of targeted Classification of Instruction Program codes will be counted twice (i.e., double-majors are included).</p> <p>Source: State University Database System (SUDS).</p>
8b. Freshmen in Top 10% of High School Class Applies only to: NCF	<p>Percent of all degree-seeking, first-time, first-year (freshman) students who had high school class rank within the top 10% of their graduating high school class.</p> <p>Source: New College of Florida as reported to the Common Data Set.</p>

BOG Choice Metric

9. Percent of Bachelor's Degrees Without Excess Hours	<p>This metric is based on the percentage of baccalaureate degrees awarded within 110% of the credit hours required for a degree based on the Board of Governors Academic Program Inventory. Note: It is important to note that the statutory provisions of the "Excess Hour Surcharge" (1009.286, FS) have been modified several times by the Florida Legislature, resulting in a phased-in approach that has created three different cohorts of students with different requirements. The performance funding metric data is based on the latest statutory requirements that mandates 110% of required hours as the threshold. In accordance with statute, this metric excludes the following types of student credits (ie, accelerated mechanisms, remedial coursework, non-native credit hours that are not used toward the degree, non-native credit hours from failed, incomplete, withdrawn, or repeated courses, credit hours from internship programs, credit hours up to 10 foreign language credit hours, and credit hours earned in military science courses that are part of the Reserve Officers' Training Corps (ROTC) program).</p> <p>Source: State University Database System (SUDS).</p>
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BOT Choice Metrics

10a. Percent of R&D Expenditures Funded from External Sources FAMU	<p>This metric reports the amount of research expenditures that was funded from federal, private industry and other (non-state and non-institutional) sources.</p> <p>Source: National Science Foundation annual survey of Higher Education Research and Development (HERD).</p>
10b. Bachelor's Degrees Awarded to Minorities FAU, FGCU, FIU	<p>This metric is the number, or percentage, of baccalaureate degrees granted in an academic year to Non-Hispanic Black and Hispanic students. This metric does not include students classified as Non-Resident Alien or students with a missing race code.</p> <p>Source: State University Database System (SUDS).</p>
10c. National Rank Higher than Predicted by the Financial Resources Ranking Based on U.S. and World News FSU	<p>This metric is based on the difference between the Financial Resources rank and the overall University rank. U.S. News measures financial resources by using a two-year average spending per student on instruction, research, student services and related educational expenditures - spending on sports, dorms and hospitals doesn't count.</p> <p>Source: US News and World Report's annual National University rankings.</p>

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

10d. Percent of Undergraduate Seniors Participating in a Research Course NCF	This metric is based on the percentage of undergraduate seniors who participate in a research course during their senior year. Source: New College of Florida.
10e. Number of Bachelor Degrees Awarded Annually UCF	This metric is the number of baccalaureate degrees granted in an academic year. Students who earned two distinct degrees in the same academic year were counted twice; students who completed multiple majors or tracks were only counted once. Source: State University Database System (SUDS).
10f. Number of Licenses/Options Executed Annually UF	This metric is the total number of licenses and options executed annually as reported to Association of Technology Managers (AUTM). The benchmarks are based on UF's national rank among public & private institutions. Source: University of Florida.
10g. Percent of Undergraduate FTE in Online Courses UNF	This metric is based on the percentage of undergraduate full-time equivalent (FTE) students enrolled in online courses. The FTE student is a measure of instructional activity that is based on the number of credit hours that students enroll by course level. Distance Learning is a course in which at least 80 percent of the direct instruction of the course is delivered using some form of technology when the student and instructor are separated by time or space, or both (per 1009.24(17), F.S.). Source: State University Database System (SUDS).
Number of Postdoctoral Appointees USF	This metric is based on the number of post-doctoral appointees during the Fall term of the academic year. A postdoctoral researcher has recently earned a doctoral (or foreign equivalent) degree and has a temporary paid appointment to focus on specialized research/scholarship under the supervision of a senior scholar. Source: National Science Foundation/National Institutes of Health annual Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS).
Percentage of Adult Undergraduates Enrolled UWF	This metric is based on the percentage of undergraduates (enrolled during the fall term) who are at least 25 years old at the time of enrollment. This includes undergraduates who are not degree-seeking, or unclassified. Source: State University Database System (SUDS).

Preeminent Research University Funding Metrics

Average GPA and SAT Score	An average weighted grade point average of 4.0 or higher and an average SAT score of 1200 or higher for fall semester incoming freshmen, as reported annually in the admissions data that universities submit to the Board of Governors. This data includes registered FTIC (student type='B','E') with an admission action of admitted or provisionally admitted ('A','P','X'). Source: State University Database System (SUDS).
Public University National Ranking	A top-50 ranking on at least two well-known and highly respected national public university rankings, reflecting national preeminence, using most recent rankings, includes: Princeton Review, Fiske Guide, QS World University Ranking, Times Higher Education World University Ranking, Academic Ranking of World University, US News and World Report National University, US News and World Report National Public University, US News and World Report Liberal Arts Colleges, Forbes, Kiplinger, Washington Monthly Liberal Arts Colleges, Washington Monthly National University, and Center for Measuring University Performance.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

Freshman Retention Rate (Full-time, FTIC)	Freshman Retention Rate (Full-time, FTIC) as reported annually to the Integrated Postsecondary Education Data System (IPEDS).
6-year Graduation Rate (Full-time, FTIC)	Cohorts are based on undergraduate students who enter the institution in the Fall term (or Summer term and continue into the Fall term). Percent Graduated is based on federal rate and does <u>not</u> include students who originally enroll as part-time students, or who transfer into the institution.
National Academy Memberships	National Academy Memberships held by faculty as reported by the Center for Measuring University Performance in the Top American Research Universities (TARU) annual report or the official membership directories maintained by each national academy.
Science & Engineering Research Expenditures (\$M)	Science & Engineering Research Expenditures, including federal research expenditures as reported annually to the National Science Foundation (NSF).
Non-Medical Science & Engineering Research Expenditures (\$M)	Total S&E research expenditures in non-medical sciences as reported to the National Science Foundation (NSF). This removes medical sciences funds from the total S&E amount.
National Ranking in S.T.E.M. Research Expenditures	The NSF identifies 8 broad disciplines within Science & Engineering (Computer Science, Engineering, Environmental Science, Life Science, Mathematical Sciences, Physical Sciences, Psychology, Social Sciences). The rankings by discipline are determined by BOG staff using the NSF WebCaspar database.
Patents Awarded (3 calendar years)	Total utility patents awarded by the United States Patent and Trademark Office (USPTO) for the most recent three calendar year period. Due to a year-lag in published reports, Board of Governors staff query the USPTO database with a query that only counts utility patents: "(AN/"University Name" AND ISD/yyyymmdd->yyyymmdd AND APT/1)".
Doctoral Degrees Awarded Annually	Doctoral research degrees awarded annually as reported annually by the Board of Governors. The Legislature excluded professional doctoral degrees from this metric. The 2016 Legislature amended this criteria to include professional doctoral degrees awarded in medical and health care disciplines.
Number of Post-Doctoral Appointees	The number of Postdoctoral Appointees awarded annually, as reported in the TARU annual report. This data is based on National Science Foundation/National Institutes of Health annual Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS).
Endowment Size (\$M)	This data comes from the National Association of College and University Business Officers (NACUBO) and Commonfund Institute's annual report of Market Value of Endowment Assets.

2018 ACCOUNTABILITY PLAN



UNIVERSITY OF CENTRAL FLORIDA

Key Performance Indicators

Teaching & Learning Metrics

Freshmen in Top 10% of HS Graduating Class	Percent of all degree-seeking, first-time, first-year (freshman) students who had high school class rank within the top 10% of their graduating high school class. Source: As reported by the university to the Common Data Set.
Professional/Licensure Exam First-time Pass Rates	The average pass rates as a percentage of all first-time examinees for Nursing, Law, Medicine (3 subtests), Veterinary, Pharmacy, Dental (2 subtests), Physical Therapy, and Occupational Therapy, when applicable. The average pass rate for the nation or state is also provided as a contextual benchmark. The Board's 2025 System Strategic Plan calls for all institutions to be above or tied the exam's respective benchmark. Note about Benchmarks: The State benchmark for the Florida Bar Exam excludes non-Florida institutions. The national benchmark for the USMLE exams are based on rates for MD degrees from US institutions.
Average Time to Degree for FTIC in 120hr programs	This metric is the number of years between the start date (using the student entry date) and the end date (using the last month in the term degree was granted) for a graduating class of first-time, single-major baccalaureates in 120 credit hour programs within a (Summer, Fall, Spring) year. Source: State University Database System (SUDS).
Six-Year Graduation Rates	The First-time-in-college (FTIC) cohort is defined as undergraduates entering in fall term (or summer continuing to fall) with fewer than 12 hours earned since high school graduation. The rate is the percentage of the initial cohort that has either graduated from the <u>same</u> institution by the summer term of their sixth academic year. Both full-time and part-time students are used in the calculation. FTIC includes 'early admits' students who were admitted as a degree-seeking student prior to high school graduation. Source: State University Database System (SUDS).
Bachelor's and Graduate Degrees Awarded	This is a count of first-major baccalaureate and graduate degrees awarded. First Majors include the most common scenario of one student earning one degree in one Classification of Instructional Programs (CIP) code. In those cases where a student earns a baccalaureate degree under two different degree CIPs, a distinction is made between "dual degrees" and "dual majors." Also included in first majors are "dual degrees" which are counted as separate degrees (e.g., counted twice). In these cases, both degree CIPs receive a "degree fraction" of 1.0. The calculation of degree fractions is made according to each institution's criteria. Source: State University Database System (SUDS).
Bachelor's Degrees Awarded To African-American and Hispanic Students	Race/Ethnicity data is self-reported by students. Non-Hispanic Black and Hispanic do not include students classified as Non-Resident Alien or students with a missing race code. Degree data is based on first-major counts only – second majors are not included. Percentage of Degrees is based on the number of baccalaureate degrees awarded to non-Hispanic Black and Hispanic students divided by the total degrees awarded - excluding those awarded to non-resident aliens and unreported. Source: State University Database System (SUDS).

2018 ACCOUNTABILITY PLAN



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Adult (Aged 25+) Undergraduates Enrolled Fall term	This metric is based on the age of the student at the time of their Fall term enrollment - not their age upon entry. As a proxy, age is based on birth year not birth date. Note: Unclassified students with a HS diploma (or GED) and above are included in this calculation. Source: State University Database System (SUDS).
Percent of Undergraduate FTE Enrolled in Online Courses	Full-time Equivalent (FTE) student is a measure of instructional activity that is based on the number of credit hours that students enroll. FTE is based on the US definition, which divides undergraduate credit hours by 30. Distance Learning is a course in which at least 80 percent of the direct instruction of the course is delivered using some form of technology when the student and instructor are separated by time or space, or both (per 1009.24(17), F.S.). Source: State University Database System (SUDS).
Percent of Bachelor's And Graduate Degrees in STEM & Health	The percentage of baccalaureate degrees that are classified as STEM or Health disciplines by the Board of Governors in the Academic Program Inventory. These counts include second majors. Second Majors include all dual/second majors (e.g., degree CIP receive a degree fraction that is less than 1). The calculation of degree fractions is made according to each institution's criteria. The calculation for the number of second majors rounds each degree CIP's fraction of a degree up to 1 and then sums the total. Second Majors are typically used when providing degree information by discipline/CIP, to better convey the number of graduates who have specific skill sets associated with each discipline. Source: State University Database System (SUDS).

Scholarship, Research & Innovation Metrics

National Academy Members	National Academy Memberships held by faculty as reported by the Center for Measuring University Performance in the Top American Research Universities (TARU) annual report or the official membership directories maintained by each national academy.
Faculty Awards	Awards include: American Council of Learned Societies (ACLS) Fellows, Beckman Young Investigators, Burroughs Wellcome Fund Career Awards, Cottrell Scholars, Fulbright American Scholars, Getty Scholars in Residence, Guggenheim Fellows, Howard Hughes Medical Institute Investigators, Lasker Medical Research Awards, MacArthur Foundation Fellows, Andrew W. Mellon Foundation Distinguished Achievement Awards, National Endowment for the Humanities (NEH) Fellows, National Humanities Center Fellows, National Institutes of Health (NIH) MERIT, National Medal of Science and National Medal of Technology, NSF CAREER awards (excluding those who are also PECASE winners), Newberry Library Long-term Fellows, Pew Scholars in Biomedicine, Presidential Early Career Awards for Scientists and Engineers (PECASE), Robert Wood Johnson Policy Fellows, Searle Scholars, Sloan Research Fellows, Woodrow Wilson Fellows.
Total Research Expenditures (\$M)	Total expenditures for all research activities (including non-science and engineering activities) as reported in the National Science Foundation annual survey of Higher Education Research and Development (HERD).
Percent of R&D Expenditures funded from External Sources	This metric reports the amount of research expenditures that was funded from federal, private industry and other (non-state and non-institutional) sources. Source: National Science Foundation annual survey of Higher Education Research and Development (HERD).
Utility Patents Awarded	The number of utility patents awarded by the United States Patent and Trademark Office (USPTO) by Calendar year – does not include design, plant or other types.
Licenses/Options Executed	Licenses/options executed in the fiscal year for all technologies – as reported by universities on the Association of University Technology Managers Annual (AUTM) annual Licensing Survey.
Number of Start-up Companies	The number of start-up companies that were dependent upon the licensing of University technology for initiation.

ITEM: EPC-4

EDUCATIONAL PROGRAMS COMMITTEE
University of Central Florida

SUBJECT: 2018 Improvement Plan for Four-year Graduation Rate

DATE: May 24, 2018

PROPOSED BOARD ACTION

Approval of 2018 Improvement Plan for Four-year Graduation Rate

BACKGROUND INFORMATION

This appendix subcomponent of the 2018 Accountability Plan is in response to the “Florida Excellence in Higher Education Act of 2018” that revised section 1001.706(5) of Florida Statutes. It requires each university board of trustees to submit a comprehensive proposal to improve undergraduate four-year graduation rates to the Board of Governors for implementation beginning in the fall of 2018 academic semester.

Supporting documentation: Attachment A: 2018 Improvement Plan for Four-year Graduation Rate
(*material forthcoming*)

Prepared by: M. Paige Borden, Associate Provost for Academic Program Quality and
Associate Vice President for Institutional Knowledge Management

Submitted by: Elizabeth A. Dooley, Interim Provost and Vice Provost for Teaching and
Learning, Dean, College of Undergraduate Studies and Professor,
College of Education and Human Performance

Attachment A

**FOUR-YEAR GRADUATION RATE
2018 IMPROVEMENT PLAN**


UNIVERSITY OF CENTRAL FLORIDA

This appendix subcomponent of the 2018 Accountability Plan is in response to the “Florida Excellence in Higher Education Act of 2018” that revised section 1001.706(5), Florida Statutes, to require each university board of trustees to submit a comprehensive proposal to improve undergraduate four-year graduation rates to the Board of Governors for implementation beginning in the fall of 2018 academic semester.

1. Identify academic, financial, policy, and curricular incentives and disincentives for timely graduation.

Initiative	Status	Timely Completion	Reduce Excess Hours	Course Level Success	Eliminate Barriers
Pegasus Path – an interactive and comprehensive degree planning mobile and desktop tool that integrates academic program requirements and co-curricular activities into a customized pathway to success	Pilot Summer 2018	✓	✓		
mySchedule Builder – student-facing tool that optimizes class schedule options	Spring 2017	✓			
myKnight STAR – predictive analytics platform generating actionable strategies for advisors and faculty	Spring 2016	✓	✓	✓	✓
Think 30 – campaign to encourage students to complete 30 credit hours per year	Fall 2016	✓			✓
Policy Review – identifying and improving policies that may result in unnecessary barriers to graduation	Summer 2019	✓	✓	✓	✓
Knights Graduation Grants – financial support for seniors that experience financial hardship	Fall 2016	✓			✓
Digital Learning Course Redesign – impact student learning through active learning and modality changes	Spring 2019	✓	✓	✓	✓
Integrative Learning – Quality Enhancement Plan encourages students to “plan, connect, and reflect” throughout coursework	Fall 2015	✓		✓	
General Education “Refresh” – enhancing GE coursework by encouraging cross discipline class learning to forge connections to upper-division majors	Fall 2019	✓	✓	✓	

Attachment A

**FOUR-YEAR GRADUATION RATE
2018 IMPROVEMENT PLAN**


UNIVERSITY OF CENTRAL FLORIDA

2. Outline the implementation of a proactive financial aid program to enable full-time students with financial need to take at least 15 credit hours in the fall and spring semesters.

UCF tuition and fees for 30 credit hours totals approximately \$6,400. The following table describes a variety of programs, the amount of tuition and fees covered, and the potential financial gap remaining.

Financial Aid	Amount of Tuition and Fees Covered	Financial Gap to 30 Credit Hours
Benacquisto National Merit Scholars	100% covered	N/A
FL Bright Futures Academic Scholars	100% covered	N/A
FL Bright Futures Medallion Scholars	75% covered (\$4,800)	\$1,600
2018-2019 Maximum Pell Grant Award Recipient	Full-Time (12+) Fall and Spring award (\$6,095)	\$ 395

UCF Financial Aid Proposal: To close the gift-aid gap to cover 30 credit hours for tuition and fees by offering a renewable institutional need-based award for a maximum of up to \$2,000 annually to incoming FTIC undergraduates admitted for the summer or fall terms. The award will require a minimum of 15 credit hours enrollment for fall and spring, unmet financial need, satisfactory academic performance, and progress toward degree.

3. The signature below of the Chair of the university board of trustees certifies that the information in this plan is true and correct to the best of my knowledge and that the board of trustees provides assurances that there will be no increased cost to students associated with the above plans, per Section 1001.706(5) of the Florida Statutes.

Certification: _____ Date: _____
(Chair, University of Board of Trustees)

ITEM: INFO-1

EDUCATIONAL PROGRAMS COMMITTEE

University of Central Florida

SUBJECT: Faculty Spotlight

DATE: May 24, 2018

For information only.

Supporting documentation: Attachment A: presentation

Prepared by: Konstantin Vodopyanov, Professor of Optics, Photonics, and Physics,
College of Optics and Photonics

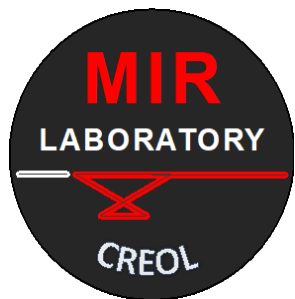
Submitted by: Elizabeth A. Dooley, Interim Provost and Vice Provost for Teaching and
Learning, Dean, College of Undergraduate Studies and Professor,
College of Education and Human Performance

Dr. Konstantin Vodopyanov

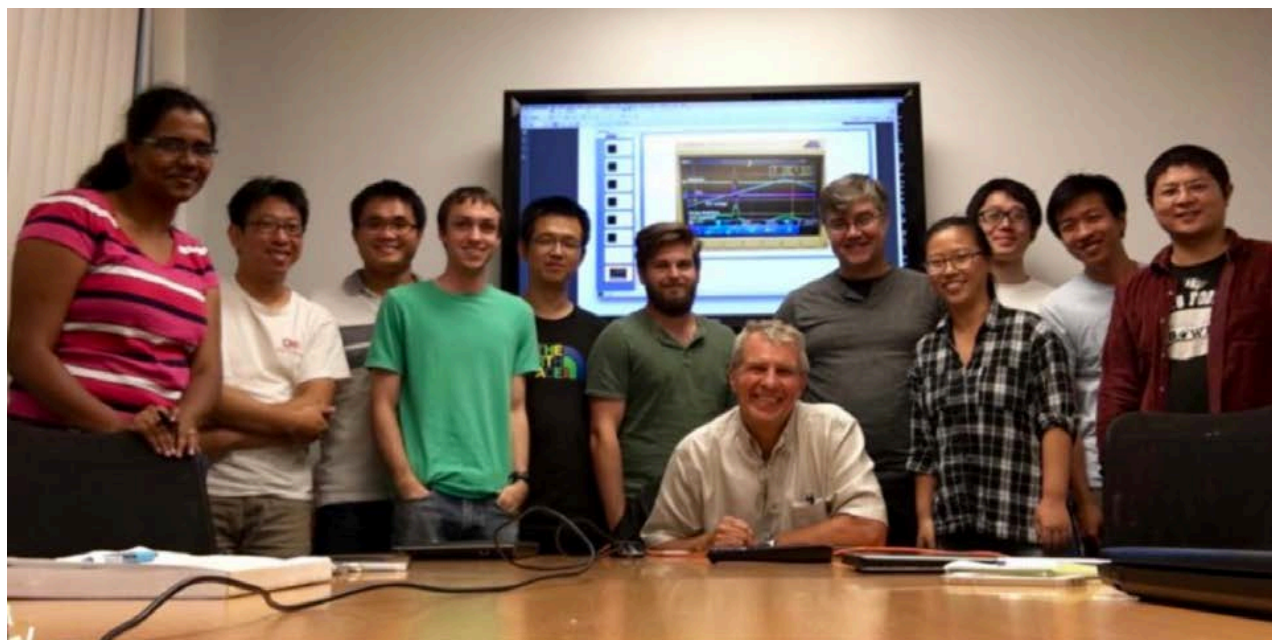
21st Century Scholar Chair and Professor of Optics, Photonics, and Physics

My Personal Story

- Konstantin L. Vodopyanov obtained his MS from the Moscow Institute of Physics and Technology ("Phys-Tech") and his PhD and DSc (Habilitation) from the Oscillations Lab. of Lebedev Physical Institute (later General Physics Inst.), led by Nobel Prize winner Alexander Prokhorov. Konstantin served as an assistant professor at the Moscow Phys-Tech (1985-90), an Alexander-von-Humboldt Fellow at the University of Bayreuth in Germany (1990-92), and as a Royal Society postdoctoral fellow and lecturer at Imperial College, London, UK (1992-98). In 1998, he moved to the United States and became head of the laser group at Inrad, Inc., NJ (1998-2000), and later director of mid-IR systems at Picarro, Inc., CA (2000-2003). His other industry experience includes co-founding and providing technical guidance for several US and European companies. In 2003 he returned to Academia (Stanford University, 2003-2013) and is now a 21st Century Scholar Chair & Professor of Optics at CREOL, College of Optics & Photonics, Univ. Central Florida.
- Dr. Vodopyanov is a Fellow of the American Physical Society (APS), Optical Society of America (OSA), SPIE - International Society for Optical Engineering, UK Institute of Physics (IOP). He has > 350 technical publications and is member of program committees for several major laser conferences including CLEO (most recent, General Chair in 2010) and Photonics West (Conference Chair).
- His research interests include nonlinear optics, mid-IR and terahertz-wave generation, ultra broadband frequency combs and their spectroscopic and biomedical applications.



VODOPYANOV RESEARCH GROUP



Our group develops groundbreaking techniques for producing mid-IR and terahertz coherent radiation and explores their diverse applications. The areas of research embrace generation of ultra-broadband frequency combs in the mid-IR and THz and study of their coherence properties, Fourier-domain mid-IR spectroscopy including dual-comb spectroscopy, ultrasensitive molecular detection, spectroscopic study of dynamic processes (e.g. combustion), and nano-IR spectroscopy. We also explore supercontinuum generation in fibers and waveguides, photonic THz wave generation, THz imaging via up-conversion, as well as applications of lasers and frequency combs for bio-medical research.

Media Coverage

Pegasus magazine, Spring 2017

https://www.ucf.edu/pegasus/the-science-of-scent/ 67%

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The Science of Scent

Professor Konstantin Vodopyanov's revolutionary technology could make diagnosing disease as easy as exhaling.

By Dan Morrell

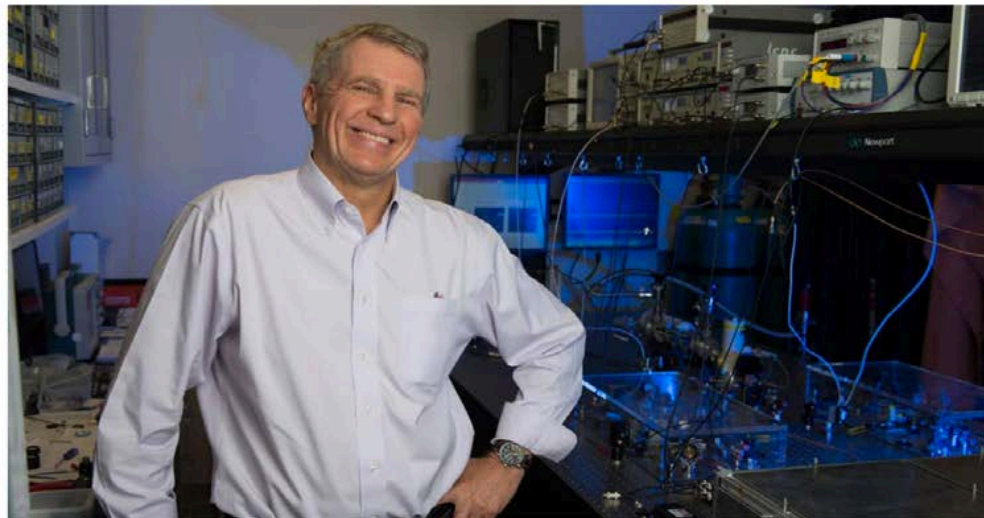
Let's say you're sick. It's a fever you've had for days. Maybe it's a headache that is getting worse and worse. Or perhaps your vision is blurred. Some system in your body is offline, and it's bad enough that you need professional advice.

You head to the doctor's office, where a great hunt for the cause begins. Your temperature is taken; your blood is drawn. X-rays or maybe an MRI is ordered. So maybe more appointments, more waiting, all while whatever it was that brought you there in the first place continues unabated.

But what if there was a way to halt that hunt during the first visit to the doctor's office? And what if the test took seconds to administer, involved no needles or claustrophobia-inducing medical equipment, gave results in milliseconds and wouldn't tax your insurance or your wallet?

This is the "Jetsonian" promise of the technology being developed by [Konstantin Vodopyanov](#), 21st Century World Class Scholars Endowed Chair in [Optics and Photonics](#). More than a decade ago, this laser specialist saw a way to use laser technology to find instant, actionable medical clues hidden in the unseen: your breath.

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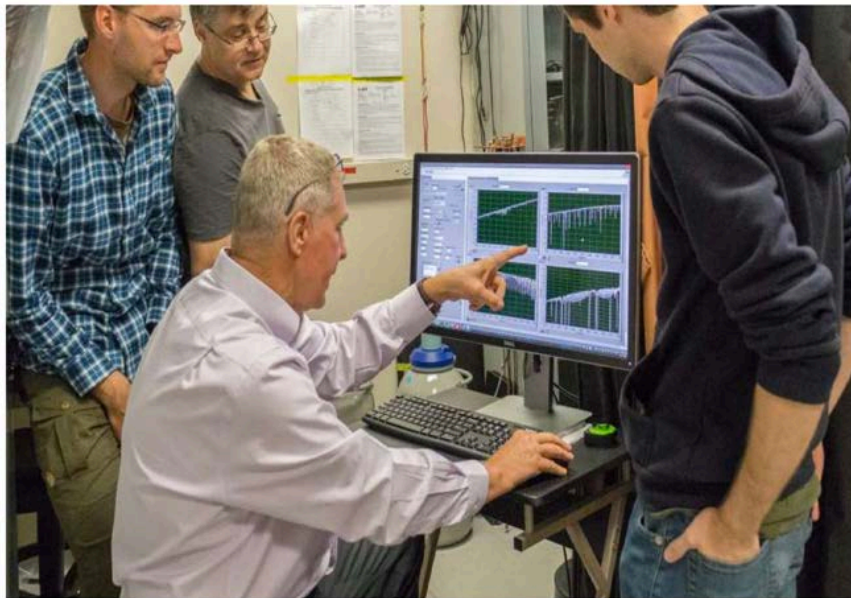
UCF Professor Konstantin Vodopyanov is developing a new laser that's capable of scanning for diseases as quickly and easily as scanning a barcode.

Media Coverage April 2018

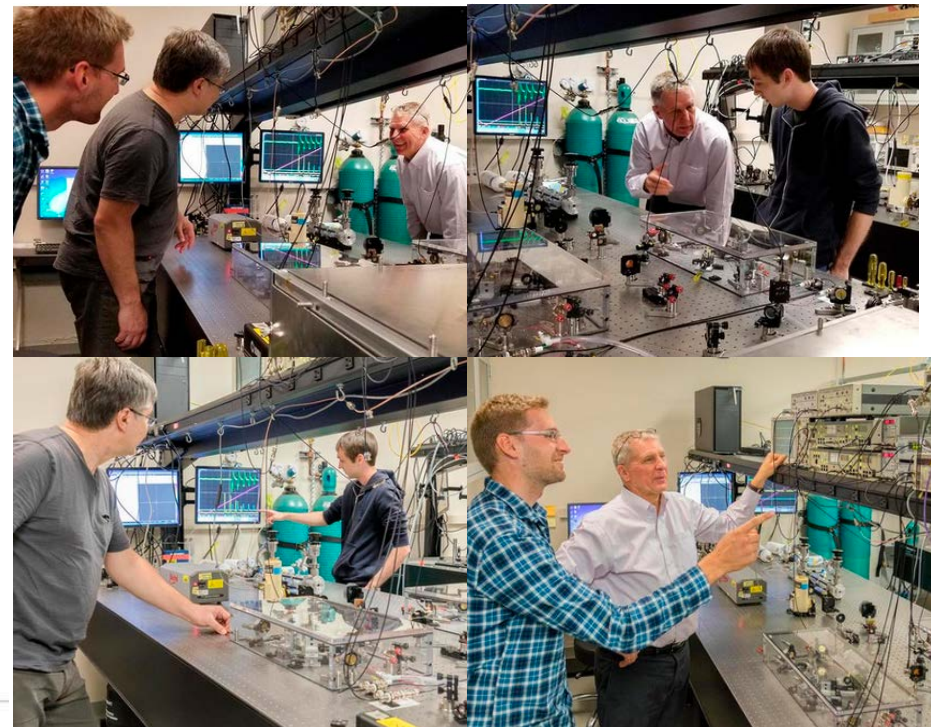


New laser technique may help detect chemical warfare in atmosphere

March 26, 2018, University of Central Florida



UCF optics and photonics Professor Konstantin Vodopyanov works with his team to broaden the range of the laser frequencies that can get the job done. If costs can be reduced and the tech made mobile, the applications could be endless, he said. Credit: UCF: Karen Norum



The Department of Homeland Security could benefit from a reliable, real-time instrument that could scan the atmosphere for toxic agents in order to alert communities to a biological or chemical attack. UCF optics and photonics Professor Konstantin Vodopyanov is developing just such a technology to accomplish that.

Media Coverage, April 2018



Media coverage, April 2018

 **Online News Gazette** • USA • Apr 1 • 01:38 pm

New laser approach could assist detect chemical warfare in environment — ScienceDaily

of Optics & Photonics, Viktor Smolski of IPG Photonics — Mid-Infrared **Lasers** in Birmingham, AL, and Zachary Loparo from UCF's Division of

 **Space Coast Daily** • USA • Mar 28 • 12:11 am


UCF Professor Develops New Laser Technique To Detect Chemical Warfare in Atmosphere

of Optics & Photonics, Viktor Smolski of IPG Photonics — Mid-Infrared **Lasers** in Birmingham, AL, and Zachary Loparo from UCF's Department of

 **ScienceDaily** • USA • Mar 26 • 02:59 pm

New laser technique may help detect chemical warfare in atmosphere

include Andrey Muraviev at **UCF's** the College of Optics & Photonics, Viktor Smolski of IPG Photonics -- Mid-Infrared **Lasers** in Birmingham, AL

 **Phys.org** • USA • Mar 26 • 12:22 pm

New laser technique may help detect chemical warfare in atmosphere

UCF's the College of Optics & Photonics, Viktor Smolski of IPG Photonics—Mid-Infrared **Lasers** in Birmingham, AL, and Zachary Loparo from **UCF'**

 **ScienceNewsline** • USA • Mar 26 • 04:46 pm

New Laser Technique May Help Detect Chemical Warfare in Atmosphere

include Andrey Muraviev at **UCF's** the College of Optics & Photonics, Viktor Smolski of IPG Photonics -- Mid-Infrared **Lasers** in Birmingham, AL

 **Capital Soup** • USA • Mar 26 • 01:47 pm

New Laser Technique May Help Detect Chemical Warfare in Atmosphere

a technology to accomplish that. He has found a new way to use infrared **lasers** to detect even trace amounts of chemicals in the air. Every

 **EurekAlert!** • USA • Mar 26 • 11:05 am

New laser technique may help detect chemical warfare in atmosphere

include Andrey Muraviev at **UCF's** the College of Optics & Photonics, Viktor Smolski of IPG Photonics -- Mid-Infrared **Lasers** in Birmingham, AL

 **Photonics Online** • USA • Mar 26 • 07:59 am

New Laser Technique May Help Detect Chemical Warfare In Atmosphere

a technology to accomplish that. He has found a new way to use infrared **lasers** to detect even trace amounts of chemicals in the air. Every

 **Product Design & Development** • USA • Mar 26 • 04:41 pm

Video of the Day: New Laser Technique May Help Detect Chemical Warfare In Atmosphere

a technology to accomplish that. He has found a new way to use infrared **lasers** to detect even trace amounts of chemicals in the air. Every

 **Research & Development** • USA • Mar 26 • 03:50 pm

New Laser Detection Method Could Thwart Chemical Attacks

or chemical attacks. **UCF** optics and photonics professor Konstantin Vodopyanov has found a new way to use infrared **lasers** to detect even


 **Laboratory Equipment** • USA • Mar 26 • 02:50 pm

Lasers Could Detect Chemical Weapons, Airborne Toxic Events

thulium-fiber combs, according to the study. Essentially, the **lasers** are able to detect the minute vibrations of single molecules – like a

Nate Lee, a school kid from New York, spent two summers in VODOPYANOV lab and became the finalist of the Regeneron School Talent Competition.

Nate became the finalist of the national Regeneron (former Intel) School Talent Search (STS) competition 2017 – only forty kids in the nation get this honor. He got the prize of \$28,000.


UNIVERSITY OF CENTRAL FLORIDA

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Issue 1 2013

High school student Nathaniel Lee is Regeneron Science Talent Search 2017 finalist

Nathaniel Lee, a high school student from New York, who worked in Dr. Vodopyanov's research lab at CREOL on a project for two last summers, became a finalist of the most prestigious Regeneron Science Talent Search 2017 – an elite competition to find the greatest young scientific minds in the country.


Medium: [Introducing the Regeneron Science Talent Search 2017 Finalists?—?Here's Why These 40 Young Scientists Just Might Change the World.](#)

Student Science: [Regeneron STS 2017 Finalists](#)

Next, the finalists (total 40 of them selected from 1700 top young talents) will meet in Washington DC on March 9-15 to compete for the first place (\$250,000 prize). There will be Nobel Prize winners among the judges. Regeneron STS prize is often referred to as "High School Nobel prize" or "Super Bowl of Science."

Posted Friday, January 27, 2017

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Collaboration with Mayo Clinic Medical Breath Analysis

