Board of Trustees Retreat
University of Central Florida
May 13, 2016

UCF FAIRWINDS Alumni Center
Boardroom
8:30 a.m. – 4:00 p.m.

AGENDA

8:30 – 9:00 a.m.	**Continental Breakfast**	**Boardroom**
9:00 – 9:15 a.m.	Welcome	Marcos Marchena
9:15 – 9:25 a.m.	Advancing Preeminence at UCF	Dale Whittaker
9:25 – 10:15 a.m.	Programs of Strategic Emphasis	
	Modeling and Simulation	Paul Wiegand
	Optics	Bahaa Saleh
	Student Counseling	Pamela Carroll
	Aerospace Engineering	Yoav Peles
	Digital Media	Rudy McDaniel
10:15 – 10:30 a.m.	**Break**	**Boardroom**
10:30 – 11:00 a.m.	Programs of Strategic Emphasis (Continued)	
	Interactive Entertainment	Ben Noel
	Health Management Informatics	Reid Oetjen
	Hospitality Management	Abraham Pizam
11:00 – 11:05 a.m.	Funding	Dale Whittaker
11:05 – 11:20 a.m.	Successes	Dale Whittaker
	Centers and Institutes	Paul Wiegand
11:20 – 11:50 a.m.	Where Do We Go From Here?	
	ICAMR	Chester Kennedy
	Applied Research Institute	David Metcalf
	Faculty Clusters	Chris Parkinson
11:50 – 12:00 noon	Wrap-Up	Dale Whittaker

12:00 noon – 1:00 p.m.	**Lunch**	**CFE Arena**
1:00 – 2:15 p.m.	Research Benchmarking and Strategies	Dale Whittaker
2:15 – 2:30 p.m.	**Break**	**Boardroom**
2:30 – 3:15 p.m.	Central Florida Higher Education Competitors	Dale Whitaker
3:15 – 4:00 p.m.	Discussion	All

Top Academic Programs and National Preeminence

May 13, 2016

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National Academic Preeminence

- What it is

- What it means

- Reputation through impact

- This session considers the resources necessary to advance strong academic programs at UCF to national preeminence
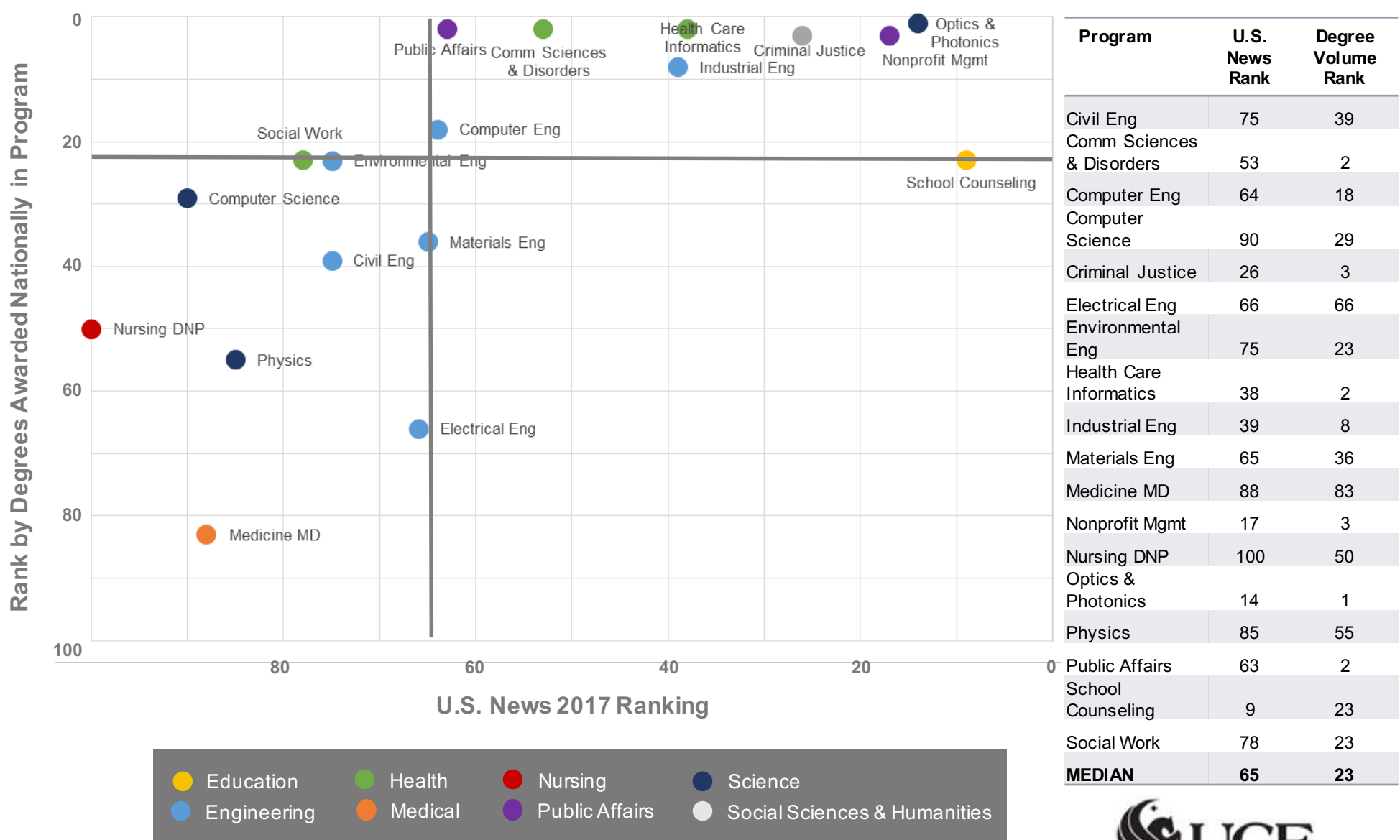
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National Preeminence Rankings

- Various rankings can serve as proxy for national preeminence, including:
  - *U.S. News and World Report* – Best Graduate Colleges
  - *The Princeton Review* – Top Gaming Programs

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U.S. News Graduate Program Rankings

- "Specialty" rankings based solely on nominations from school deans from the list of schools surveyed
- Can select up to 10 top programs in each area
- Numerically ranked in descending order based on number of nominations received
- At least seven nominations must be received to be ranked

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U.S. News Rank to Degree Volume Rank

Program	U.S. News Rank	Degree Volume Rank
Civil Eng	75	39
Comm Sciences & Disorders	53	2
Computer Eng	64	18
Computer Science	90	29
Criminal Justice	26	3
Electrical Eng	66	66
Environmental Eng	75	23
Health Care Informatics	38	2
Industrial Eng	39	8
Materials Eng	65	36
Medicine MD	88	83
Nonprofit Mgmt	17	3
Nursing DNP	100	50
Optics & Photonics	14	1
Physics	85	55
Public Affairs	63	2
School Counseling	9	23
Social Work	78	23
MEDIAN	**65**	**23**

Legend:
- Education
- Engineering
- Health
- Medical
- Nursing
- Public Affairs
- Science
- Social Sciences & Humanities

IKM 2016

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Orlando Megatrends and UCF's strengths

- Nation's largest cluster of modeling, simulation, and training companies

- Orlando has a $9 billion digital media industry and is among nation's top 10 largest digital media clusters

- Top producing region for engineers in aviation, aerospace, and defense industry

- First U.S. destination to surpass 60 million tourists

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Intellectual Anchor for Industry Clusters

- Rosen College of Hospitality Management in heart of tourism corridor

- College of Medicine in Lake Nona Medical City

- Institute for Simulation and Training in Central Florida Research Park

- UCF Downtown for digital media and healthcare technology in our urban core

- ICAMR for advanced manufacturing and next-generation technologies in Osceola County

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Academic Program Presentations

Graduate Programs
- Modeling and Simulation
- Optics
- Student Counseling

Graduate and Undergraduate Programs
- Aerospace Engineering
- Digital Media
- Interactive Entertainment
- Health Management Informatics

Undergraduate Programs
- Hospitality Management

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Modeling and Simulation for Training Graduate Program (MST)

UCF MODELING & SIMULATION GRADUATE PROGRAM

Modeling and Simulation Overview

- **The only truly trans-disciplinary program within UCF**

General Content Areas of Focus

Simulation Modeling and Analysis · Simulation in Health Care · Human Systems in Modeling and Simulation · Computer Visualization in Modeling and Simulation · Interactive Simulation and Intelligent Systems · Simulation Infrastructure · Simulation Management

The UCF Modeling and Simulation curricula permit students to customize their learning across UCF based on their educational and career experience, interests, and goals. Currently involves five colleges.

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Graduate Programs and Enrollment

Joseph J. LaViola, Jr, Ph.D.
Graduate Program Director

Sabrina Gordon, M.A.
Graduate Program Coordinator

Programs Offered

1 Modeling and Simulation Ph.D.

2 Modeling and Simulation M.S.

3 Modeling and Simulation of Technical Systems Graduate Certificate (G.C.)

4 Modeling and Simulation of Behavioral Cybersecurity Graduate Certificate (G.C.) **NEW!**

Graduates

M.S. 327

Ph.D. 83

G.C. 16

Grand Total 398

Since 2001 through Spring 2016

Would like to grow from 150 students enrolled each year to 250 by academic year 2019-20

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Where Modeling and Simulation Is Expanding

- **Substantial growth opportunity in health modeling and simulation**
  - College of Nursing has created certificate program
  - Medical City, College of Medicine, College of Nursing, and COHPA
  - VA Hospital and VA SIMLEARN center in Orlando

- **Human aspects of cyber security – Certificate created**
  - Adversary culture and behavior capture and modeling
  - Individual behavior and team aspects of cyber defense
  - Insider threat behavior, modeling, and mitigation

- **Unmanned systems**
  - Human-system interface for robots
  - Incorporate robots into teams
  - Modeling team and ambient culture

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Modeling and Simulation Program Needs

- **Recognition as an academic unit**
  - Ability to grant tenure
  - Ability to have SCHs, more access to graduate research assistants

- **Faculty**
  - Historically primarily Institute for Simulation and Training research faculty members and adjuncts
  - Hiring two tenure-earning faculty members, with plans to hire three more
  - Need better mechanisms for recognition of cross-unit teaching, co-teaching
  - Funding to support research faculty to teach

- **Support for students**
  - New lab equipment and funding for conferences for students
  - Additional support for master's and doctoral students and administrative support
  - Funding for pilot studies in conjunction with other academic units

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Preeminence in Biomedical Optics and Biophotonics

College of Optics and Photonics Overview

- **Rankings**
  - National Research Council: Top 5-12 among Electrical Engineering Ph.D. programs
  - *U.S. News*: 14th top atomic, molecular, and optical sciences program

- **Faculty**
  - World-renowned scholars, fellows, editors of top journals, and leaders of professional societies

- **Students and Graduates**
  - 280 Ph.D. degrees awarded
  - 400 master's degrees awarded
  - New B.S. degree program with growing enrollment

- **Research**
  - About $15 million in external funding in 2015
  - 280 patents
  - Industrial affiliates program with 62 companies in 2016
  - 26 spin-offs and 5 incubated startups

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Targets and Benchmarks

- **Targets**
  - Convert our nascent, fragmented bio research into a mature program integrated with clinical research at UCF College of Medicine and Orlando hospitals
  - Funding targets:
    - 5 National Institutes of Health R21 grants ($300,000-$400,000 per grant)
    - 3 National Institutes of Health R01 grants (> $1 million per grant)

- **Benchmarks**
  - The biophotonics program at Beckman Institute (UC Irvine or University of Illinois Urbana-Champaign)
  - A campus-wide institute similar to BIO5 Institute at University of Arizona (led by a Ph.D. professor and an M.D. professor)

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Biophotonics Faculty and Partnerships

UCF Biophotonics Faculty

Aristide Dogariu

Konstantin Vodopyanov

Ayman Abouraddy

Sean Pang

Ryan Gelfand

Kuy Young Han

Potential Partnerships:

- Center for Research and Education in Optics and Lasers (CREOL)
- College of Engineering and Computer Science
- College of Medicine
- College of Sciences
- International Consortium for Advanced Manufacturing Research (ICAMR)
- NanoScience Technology Center at UCF

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Optics and Photonics Program Needs

- **Faculty**
  - Establish a chaired professorship and recruit an eminent senior scientist, along with three junior faculty members
  - New faculty cluster with joint appointment in COM and in partnership with existing faculty will provide critical mass to secure large funding and possibly an externally-funded center or institute

- **Resources**
  - Salaries and startup for new faculty hires
  - Office and lab space
    - 1,000 square feet for offices
    - 2,000 square feet for labs on main campus
    - Additional lab space in COM and access to clinical facilities

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Counselor Education Program

CEDHP Counselor Education Graduate Program Ranks Ninth Nationally

Department of Child, Family, and Community Sciences
College of Education and Human Performance

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Counselor Education Program Overview

UCF Counselor Education Program

- Ranked ninth by *U.S. News & World Report*
- Nationally accredited by CACREP
- Prepares counseling professionals to work in schools, universities, community mental health settings, institutions, hospitals, and private practices throughout Florida
- 285 graduate students enrolled

Degrees	Credits Hours	Enrollment
Marriage, Couple, & Family Therapy (M.A.)	63 credits	62 graduate students
Mental Health Counseling (M.A.)	63 credits	135 graduate students
School Counseling (M.A., M.Ed.)	60 credits	63 graduate students
Ph.D. in Education, Counselor Education	84 credits	25 doctoral students

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Faculty and Community Engagement Vision

Faculty and Program Excellence

Vision: Premier counselor education faculty and program in the country

1. **Program Ranking**
   - Ninth-best graduate program, *U.S. News & World Report* (Spring 2016)
2. **World-Renowned Faculty and Program**
   - Four ACA Fellows
   - ACES Outstanding Counselor Education Program
3. **Significant Federal External Research Funding**
   - Project Harmony, 2015-20; $9.7 million
   - Project Together, 2011-15; $8.7 million
4. **Professional Leadership and Impact**
   - National journal editors
   - Faculty member citations

Community Engagement

Vision: Greatest partnership counselor education program in the country

1. **Marriage and Family Research Institute (MFRI)**
   - Provides couple and relationship education to over 7,000 low-income and culturally-diverse couples and individuals in Central Florida
2. **Community Counseling and Research Center (CCRC)**
   - 1,800 community members served annually, equating to $1.8 million saved by the community
3. **Counseling Partnership with Seminole County Public Schools**
   - Provides over 500 free after-school counseling sessions to Title I elementary school students and their families annually

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Path to Preeminence Over Next Five Years

- **Program Ranking and Recognition**
  - Increase "Best Graduate Program" ranking in *U.S. News & World Report*
  - Continue to receive programmatic national award recognition

- **Faculty Excellence and Impact**
  - Increase number of ACA Fellows
  - Increase number of faculty scholarly research citations

- **Significant External Research Funding**
  - Increase external federal research funding by $1 million

- **Community Engagement**
  - Continue enhancing partnerships with school districts and agencies

- **Maximize Counselor Education Doctoral Students' Research Productivity**
  - Continue increasing Ph.D. student graduates' placement in tenure-track positions at research-intensive universities

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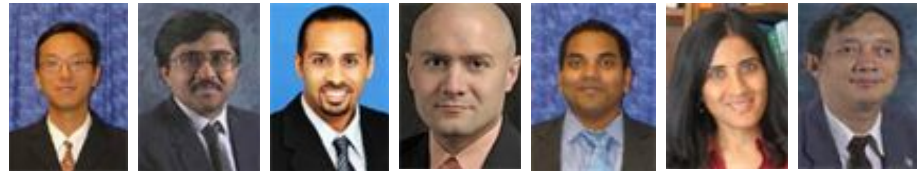# Aerospace Engineering Program

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Aerospace Engineering Overview

- **Seven Core Faculty Members**

- **One Center**
  - Center for Advanced Turbomachinery and Energy Research (CATER)
  - Seven core faculty from the aerospace, mechanical, and civil engineering programs
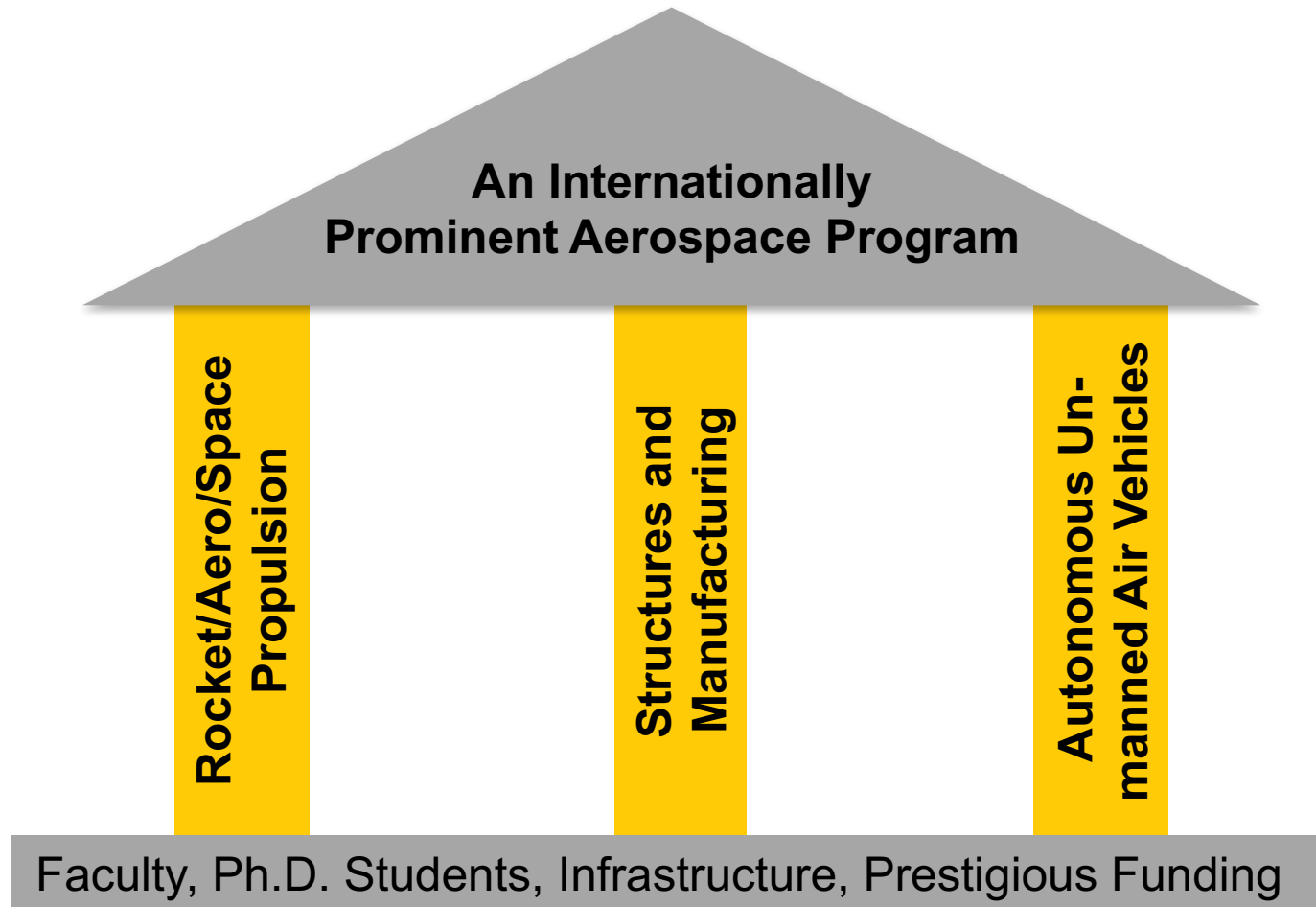
- **Research Areas**
  - Combustion
  - Propulsion
  - Aerodynamics
  - Structural dynamics and adaptive structures
  - Mechanics of aerospace materials and structures
  - High-temperature coatings
  - Alternative fuels
  - Laser diagnostics
  - Shock wave physics and chemistry
  - Control for single or cooperative vehicles
  - Guidance and navigation

- **Research Expenditures**
  - $1 million – $1.5 million annually

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Vision: Areas of Excellence

**An Internationally
Prominent Aerospace Program**

**Rocket/Aero/Space
Propulsion**

**Structures and
Manufacturing**

**Autonomous Un-
manned Air Vehicles**

Faculty, Ph.D. Students, Infrastructure, Prestigious Funding

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Traits of a Prominent Aerospace Program

- High-caliber faculty, including National Academy of Engineering (NAE) members
- Top 20 program in the nation, according to *U.S. News & World Report*
- Two or three distinct areas of excellence
- Unique, multi-million dollar infrastructure
  - High-end subsonic, transonic, and supersonic wind tunnel facilities
- Excellent Ph.D. students
  - Enrollment: 40-50
  - Graduation rate: 10-15 annually
- Publications in elite journals
- Large, prestigious funding awards
  - Several multi-million dollar, multi-year awards
  - Average annual research expenditure of $300,000-$400,000 per faculty member
- High visibility across government agencies and scientific communities
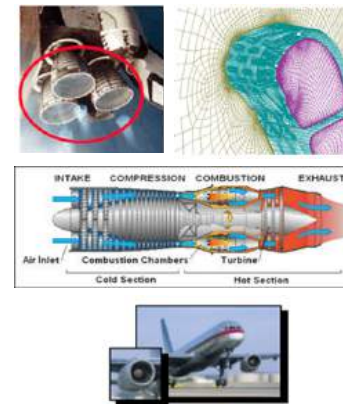
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Pillar One: Rocket/Aero/Space Propulsion

- **People**
  - Five new faculty lines to add to the existing 11 current or incoming CATER faculty
  - 20 Ph.D. fellowships
  - Four post-doctoral associates

- **Infrastructure**
  - High-temperature, high-pressure wind tunnels
  - Flexible additive manufacturing TestBed
  - High-pressure shock tube

- **Strategic Collaborators**
  - Institute for Simulation and Training, College of Optics and Photonics, International Consortium for Advanced Manufacturing Research, Physics, and Chemistry
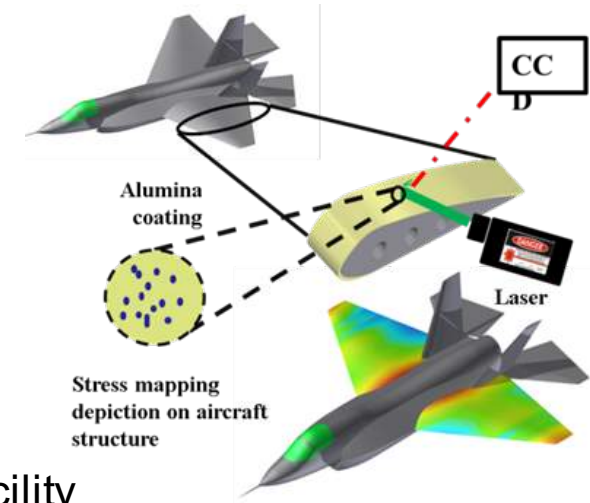
- **Funding**
  - NASA, U.S. Department of Defense, GE, Aerojet Rocketdyne, Pratt & Whitney, Airbus, Blue Origin, and ATK Orbital

- **Funding Target**
  - $5 million per year of new funding

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Pillar Two: Structures and Manufacturing

- **People**
  - Three new faculty lines
  - Five Ph.D. fellowships
  - Five post-doctoral associates

- **Infrastructure**
  - Structures and structural dynamics integrity testing facility
  - Advanced manufacturing facility (laser and e-beam additive and removal)

- **Strategic Collaborators**
  - College of Optics and Photonics, International Consortium for Advanced Manufacturing Research, Institute for Simulation and Training, and Florida Space Institute

- **Funding Target**
  - $2 million per year of new funding

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Pillar Three: Autonomous, Un-manned Air Vehicles

- **People**
  - A National Academy of Engineering member
  - Two new faculty lines (aerodynamics, operation, and traffic management)
  - Three Ph.D. fellowships
  - Two post-doctoral associates

- **Infrastructure**
  - 20-foot high, 2,000-square-foot hanger
  - Test field

- **Strategic Collaborators**
  - College of Engineering and Computer Science, Institute for Simulation and Training, Kennedy Space Center, and agriculture stations around Florida

- **Potential Funding Resource**
  - National Science Foundation, Air Force Office of Scientific Research, Florida Transportation, Army, Office of Naval Research, U.S. Department of Agriculture

- **Funding Target**
  - $2 million per year of new funding

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Preeminence in Digital Media Programs

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Digital Media Overview

- ## Rankings
  - *Animation Career Review*: No. 20 out of 50
  - *Top 50 Game Design Schools and Colleges in the U.S., 2016*: No. 5 out of 10 in the South

- ## Faculty and Students
  - 18 faculty and about 800 undergraduate majors within the School of Visual Arts and Design

- ## Degree Programs
  - Undergraduate emphasis on game design, web design, and character animation
  - B.A., M.A., and M.F.A. programs and alliance with Texts and Technology Ph.D. program

- ## Research
  - Interdisciplinary backgrounds bridging storytelling, art, and technology

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Benchmarks

- **Rankings**: *The Princeton Review, Animation Career Review, U.S. News & World Report, The Chronicle of Higher Education*

- **Benchmark institutions**: University of Florida, Carnegie Mellon's Entertainment Technology Center, Georgia Tech

- Academic program review

- State performance metrics

- Student engagement metrics

- External research funding data

- Data indicating impact on local, regional, and state economy (internships secured, career placement, etc.)

Nadya Sudjita ('17)

Vision and Path to Preeminence

ZOOTOPIA CREW
Kendall Litaker ('09), *Asst. Technical Director*
Mike Navarro ('09), *Character Technical Director*
Michael Woodside ('08), *Animator*
Elissa Cordero Hansen ('06), *Stereoscopic Artist*

JUST ZOO IT.

Vision

- To offer premier digital media undergraduate programs and nationally-recognized graduate programs known for academic rigor, technological innovation, community engagement, and economic impact

Path to Preeminence

- Facilitate "lab to classroom" and "classroom to lab" models for student-engaged research collaborations

- Build nationally recognized models for student support, advising, and alumni success

- Create a strong externally-funded research program (more than $2 million a year) with graduate student involvement

- Catalyze entrepreneurship and commercialization for student- and faculty-led initiatives

- Support active and vibrant industry partnerships, especially downtown

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Digital Media Program Needs

- Bring UCF in line with top-tier national programs in terms of student-faculty instructional ratios

- Allow more time for conducting research and mentoring graduate students

- Create a research cluster with senior leadership in an emerging research area of strategic importance to UCF

  (e.g., Internet of things, VR, games, or mobile)

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M.S. Interactive Entertainment

Who We Are

The Florida Interactive Entertainment Academy and UCF's Center for Emerging Media are home to a diverse group of teachers, learners, and industry professionals collaborating in a creative environment that emphasizes high-production values, cutting-edge technologies, and time-tested production techniques.

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Interactive Entertainment Overview

Top 5 National Recognition

- Currently ranked No. 1 by *The Princeton Review* for North American Graduate Programs

What Works?

- **Innovative Learning Models**
  - Student development focus
  - Rigor and consistent advising

- **Access**
  - Connector to learning environments
  - Pipeline to community and industries

- **Impact**
  - Diverse employment creator
  - Global branding
  - Life-long learning

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Program Results

- Over 80 percent of each class hired in desired field

- 130+ companies have hired graduates

- Average starting salary of $63,000

- Credibility with industries

Competitive programs include: University of Southern California, Southern Methodist University, Carnegie Mellon, and University of Utah

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Moving Forward

Vision

FIEA will be the anchor of a leading education and industry cluster that will enable Central Florida to compete with Silicon Valley and Central Texas as the East Coast leader and a global technology hub

Metrics

- Industry leader in job creation – placement rate and average starting salaries
- *The Princeton Review* – No. 1-ranked North American Graduate Program (top five since inception)
- Recognized as a community partner
- Expand in strategic areas of research and partnerships

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Paths to Greater Preeminence

Entrepreneurship

- Expand FIEA Ventures and startup opportunities

Leadership (Academy)

- Development and diversity focus
- Production and art specific
- Additional faculty and staff

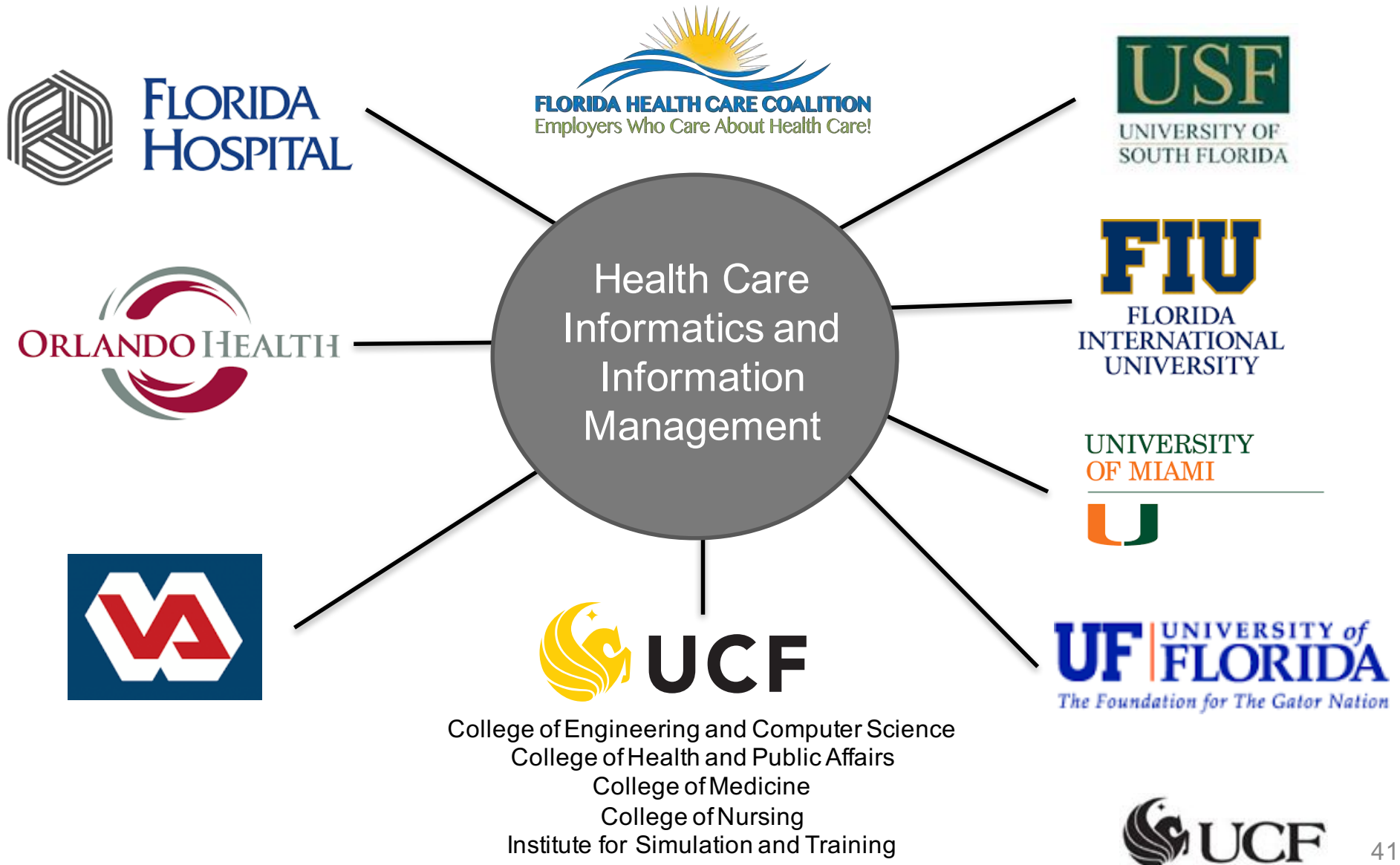## Research

- UCF colleges and target industries
- Collaboration with FIEA Ventures
- STEM funding opportunities

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Health Management and Informatics

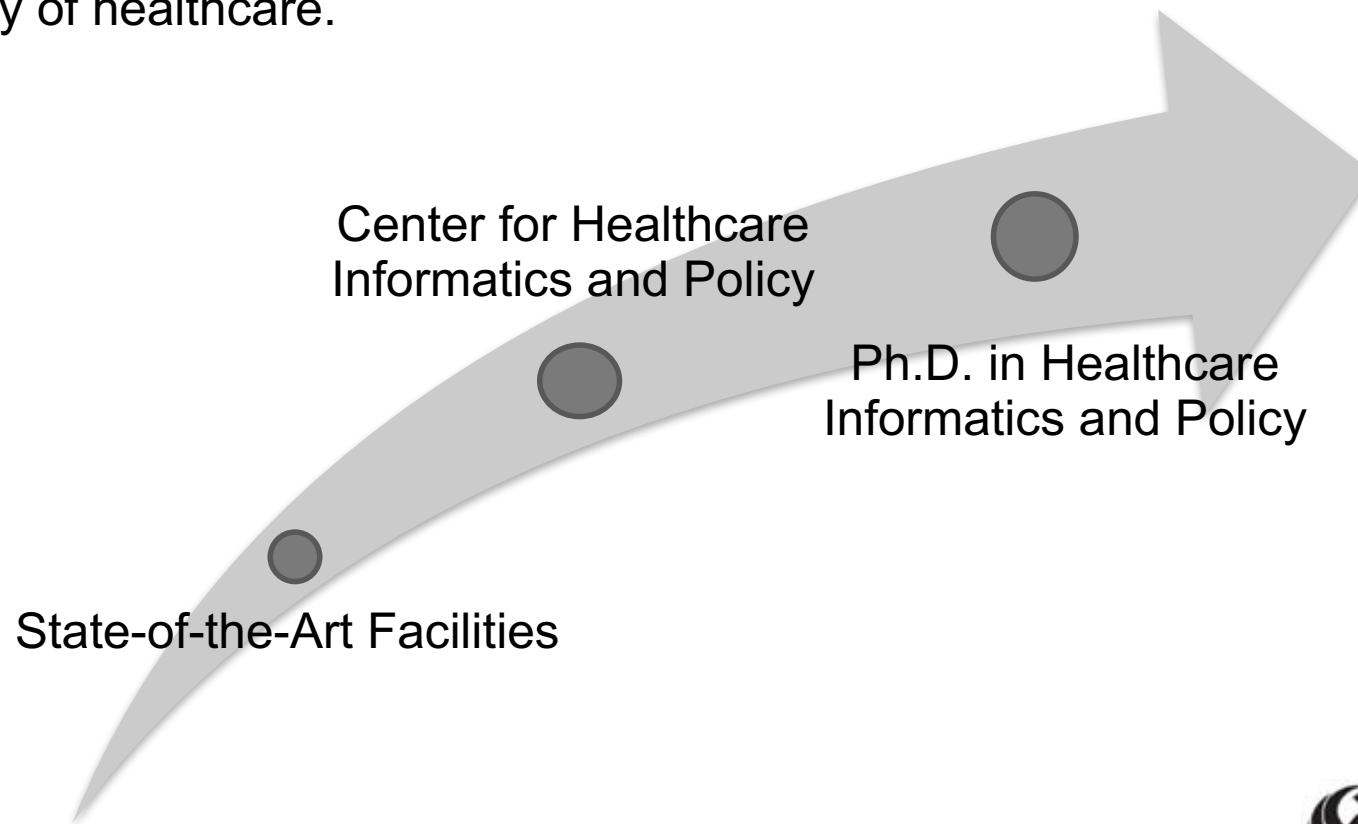**"Using Informatics to Connect Individuals, Communities, and Populations"**

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Health Management and Informatics Overview

FLORIDA HOSPITAL

FLORIDA HEALTH CARE COALITION
Employers Who Care About Health Care!

USF
UNIVERSITY OF
SOUTH FLORIDA

Health Care Informatics and Information Management

FIU
FLORIDA INTERNATIONAL UNIVERSITY

ORLANDO HEALTH

UNIVERSITY OF MIAMI

VA

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UF | UNIVERSITY of FLORIDA
The Foundation for The Gator Nation

College of Engineering and Computer Science
College of Health and Public Affairs
College of Medicine
College of Nursing
Institute for Simulation and Training

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Path to National Preeminence

Vision

Become the premier informatics program in the nation by leveraging informatics to connect individuals, communities, and populations; thus, transforming the delivery of healthcare.

Center for Healthcare
Informatics and Policy

Ph.D. in Healthcare
Informatics and Policy

State-of-the-Art Facilities

Assessing Impact

- Registered Health Information Administrator (RHIA) pass rate 90 percent (National average 75 percent)

- Enrollment increase of 20 percent by 2020

- Top 5 informatics program nationally within five years

- Nationally-recognized and ranked Ph.D. program by Year 10

- Center for Healthcare Informatics and Policy will secure at least $1 million in external funding by Year 4

- Become the leader and preferred partner for healthcare informatics research

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Rosen College of Hospitality Management

Leading the Way of Hospitality Education

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Hospitality Management Overview

- **The fastest-growing and the second-largest hospitality management program in the world**
  - Consistently ranked among the top three or top five programs worldwide

Undergraduate programs

- Hospitality Management
- Foodservice and Lodging Management
- Event Management
- Entertainment Management

Program tracks

- Theme Parks and Attractions Management
- Professional Tennis Management

Graduate programs

- Hospitality and Tourism Management M.S.
- M.S. dual degrees with Portugal, Italy, and China
- M.S. for medical students
- Destination Marketing and Management (Certificate)
- Event Management (Certificate)
- Hospitality Management Ph.D. (only one in Florida, one of seven in U.S.)

Minors

- Hospitality Management
- Event Management

How did we do it?
By leveraging size and location to create and sustain a culture of hospitality, entrepreneurship, and innovation

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Vision and Core Values

Vision

- Be the recognized leader in hospitality and tourism education, research, scholarship, and industry partnership worldwide
- Be ranked as the world's No. 1 comprehensive hospitality management program by 2020

Mission

- Four-year mission to explore new fields of endeavor, to seek out new educational and research opportunities, and to boldly go where no hospitality program has gone before

Core Values
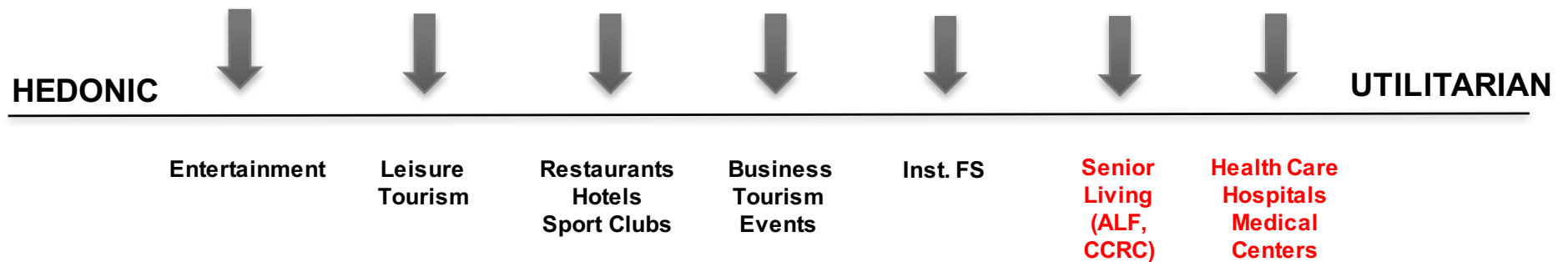
- Professionalism
- Leadership
- Service

Benchmarking Institution

- Cornell Hotel School

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Road Map for the Future

HOSPITALITY MANAGEMENT AND THE HEDONIC-UTILITARIAN SCALE

HEDONIC   **UTILITARIAN**

Entertainment   Leisure   Restaurants   Business   Inst. FS   **Senior**   **Health Care**
                 Tourism   Hotels   Tourism   **Living**   **Hospitals**
                              Sport Clubs   Events   **(ALF,**   **Medical**
                                                                         CCRC)   **Centers**

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Hospitality Management Program Needs

Enabling the Rosen College to be the best of its kind by expanding its reach into the healthcare industry

- Create an undergraduate degree program in **Senior Living Management in partnership with the College of Nursing**

    - This degree will prepare young women and men to work in the burgeoning industry of institutionalized senior living industry

    - A close examination of the operation of all senior living facilities will reveal that the highest common denominator among all of them is the provision of hospitality services such as accommodation, food service, recreation, entertainment, and opportunities to socialize

    - Medical and nursing services are crucial, as they are the "push" factor that bring clients to these facilities in general, but the quality of hospitality services are the "pull" factor that make clients choose one facility over another

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Core Strategies to Achieve Preeminence

- ## How do we get there?

  - Investing in key talent

  - Investing in infrastructure

  - Defining our distinctive strengths and discovering areas of opportunity
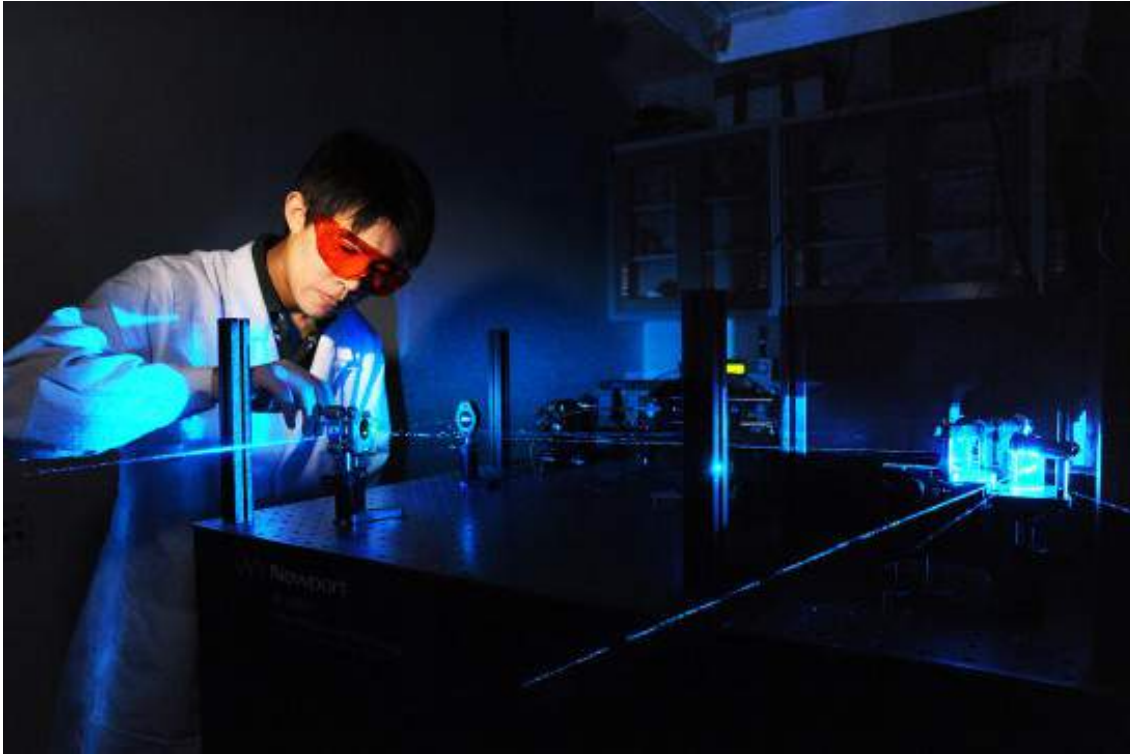
  - Making tough decisions

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University Budget Process

Decentralized
Budget Decisions
• Unit or college
• Division
• Central

Carryforward
• Three-year plan
• Reallocation

Hybrid
Budget Model
• Base budget
• Incremental allocations

Translate Strategic
Goals into Operating
Plans

Annual Exceptional
Funding Request
Process

12 Member
University Budget
Committee

Focus on
Strategic
Allocations

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Learning from Our Successes

- History of innovation and entrepreneurship

- Developing nationally-renowned centers and institutes of excellence

- Faculty-driven academic programs that leverage our strengths and find unique areas of opportunity

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Contributions of the Centers and Institutes

Major UCF Research Centers and Institutes

- Institute for Simulation and Training (IST)

- Center for Research and Education in Optics and Lasers (CREOL)

- Florida Solar Energy Center (FSEC)

- Florida Space Institute (FSI)

- NanoScience Technology Center (NSTC)

- Center for Research in Computer Vision (CRCV)

- Advanced Materials Processing and Analysis Center (AMPAC)

- Burnett School of Biomedical Sciences (BSBS)

Centers and Institutes' Accomplishments

- Four offer internationally-recognized research and graduate programs
  - Institute for Simulation and Training (IST)
  - Center for Research and Education in Optics and Lasers (CREOL)
  - NanoScience Technology Center (NSTC)
  - Center for Research in Computer Vision (CRCV)

- Very high impact on the Florida economy
  - New companies created and new patents awarded

- Four units consistently produce more than 50 percent of all research grants within UCF
  - College of Engineering and Computer Science, IST, CREOL, and College of Sciences

- Pioneering how UCF will substantially grow research
  - Research faculty and trans-disciplinary clusters

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Creating New Opportunities

- ICAMR

- Applied Research Institute

- Faculty Cluster Initiative

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ICAMR

The world's first industry-led consortium (501c6 non-profit) for the manufacturing of smart sensors

International Consortium for Advanced Manufacturing Research

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Goals

World-class facility that supports state-of-the-art R&D and positions Central Florida to be an early leader in the evolution of the global $32.5 trillion per year sensor-driven economy.

Startup Funding of Over $200 Million

iCAMR

Osceola County

- **$168 million** from Osceola County
- **Design, build, and equip** 100,000-square-foot center
- **20 acres,** plus in-kind support for power, water, and waste disposal

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- **$10 million** non-state and non-tuition funds to design and build center and start-up costs
- **$7 million** in-kind for focused hires and resource support
- **30-year lease** of center from Osceola County at $1 per year

FHTCC

- **$1 million** for initial operating cost
- **Up to $5 million** matching funds over five years for specific research projects
- **$750,000** from USF, FIU, and UF

State of FL

- **$5 million** per year for operations
- **$10 million** tools and equipment
- **$2 million** QACF

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A New Era of International Collaboration

iCAMR

Innovation networks and open innovation programs that bring industry, universities, and governments together

Industry
- Emerging technologies
- Opens access to lowest-cost manufacturing

Universities
- Universities in U.S., Europe, and Asia
- Enables competitive pursuits in expanded areas of interest
- New ideas and approaches

Government
- State of Florida
- National research labs and agencies
- Attract joint funds

Suppliers
- Equipment
- Materials
- Software
- Industry R&D labs and programs

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Industry and Government

Increasing industry and government interest in ICAMR

- Enabled UCF to secure a significant role on the MIT-lead and Department of Defense-sponsored $300 million+ smart fiber National Network of Manufacturing Innovation (NNMI)

- Lead partner for a $349 million advanced sensors DOC NNMI (under evaluation)

- Supporting University of Texas on a $200 million+ Department of Energy initiative (under evaluation)

- Finalizing our design center concept (announcement expected July 2016)

- First multi-million dollar industry project for the design center identified

- Building complete March 2017

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UCF Applied Research Institute

- Launched by the Research Foundation to assist in securing large collaborative research projects and enhance the university's interdisciplinary work and growing partnerships

- Help bridge the technology "valley of death" – the chasm that often occurs between basic research and innovation

- Create a centralized location where faculty members can team together to apply for grants, and where students can find resources, training, and research opportunities in areas where funding is available

- Initially focus on areas that align with Florida's economic development needs, such as photonics, modeling and simulation, engineering, and biomedicine

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Faculty Cluster Initiative

- Interdisciplinary teaching and research initiative hiring 33 new faculty members

  – Cyber Security and Privacy

  – Energy Conversion and Propulsion

  – Genomics and Bioinformatics

  – Prosthetic Interfaces

  – Renewable Energy Systems

  – Sustainable Coastal Systems

- Each of these clusters involves faculty members from multiple colleges and departments – many from UCF's top 100-ranked programs by *U.S. News & World Report*

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Why Faculty Clusters?

- Exploring solutions to today's toughest scientific and societal challenges at the fringes of disciplines – with broad applications across different issues

- Hiring top talent who will advance UCF's impact as a metropolitan research university

- Developing new academic programs and research opportunities

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What Makes UCF's Faculty Clusters Unique?

- **Renewable Energy Systems (RISES)**
  - Engineering, Computer Science, Photovoltaics (CREOL), Public Administration and Policy, Business Administration
  - No interdisciplinary power systems graduate programs currently exist
  - Builds upon UCF's local industry partnerships and federal funding priorities

- **Cyber Security and Privacy**
  - Computer Science, Electrical and Computer Engineering, Psychology, Industrial Engineering and Management Systems, Modeling and Simulation, Political Science, Statistics
  - Ties multiple disciplines together within a strategic framework
  - Builds upon UCF's prominence in cyber security – 3-time collegiate cyber defense national champions and new NSA Center of Academic Excellence in Cyber Defense

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Concluding Thoughts

- Importance of our strategic planning process

- The need to leverage our unique strengths in Central Florida environment

- The courage to make decisions that will produce the greatest impact

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Top Academic Programs and National Preeminence

May 13, 2016

UCF

National Academic Preeminence

- What it is

- What it means

- Reputation through impact

- This session considers the resources necessary to advance strong academic programs at UCF to national preeminence
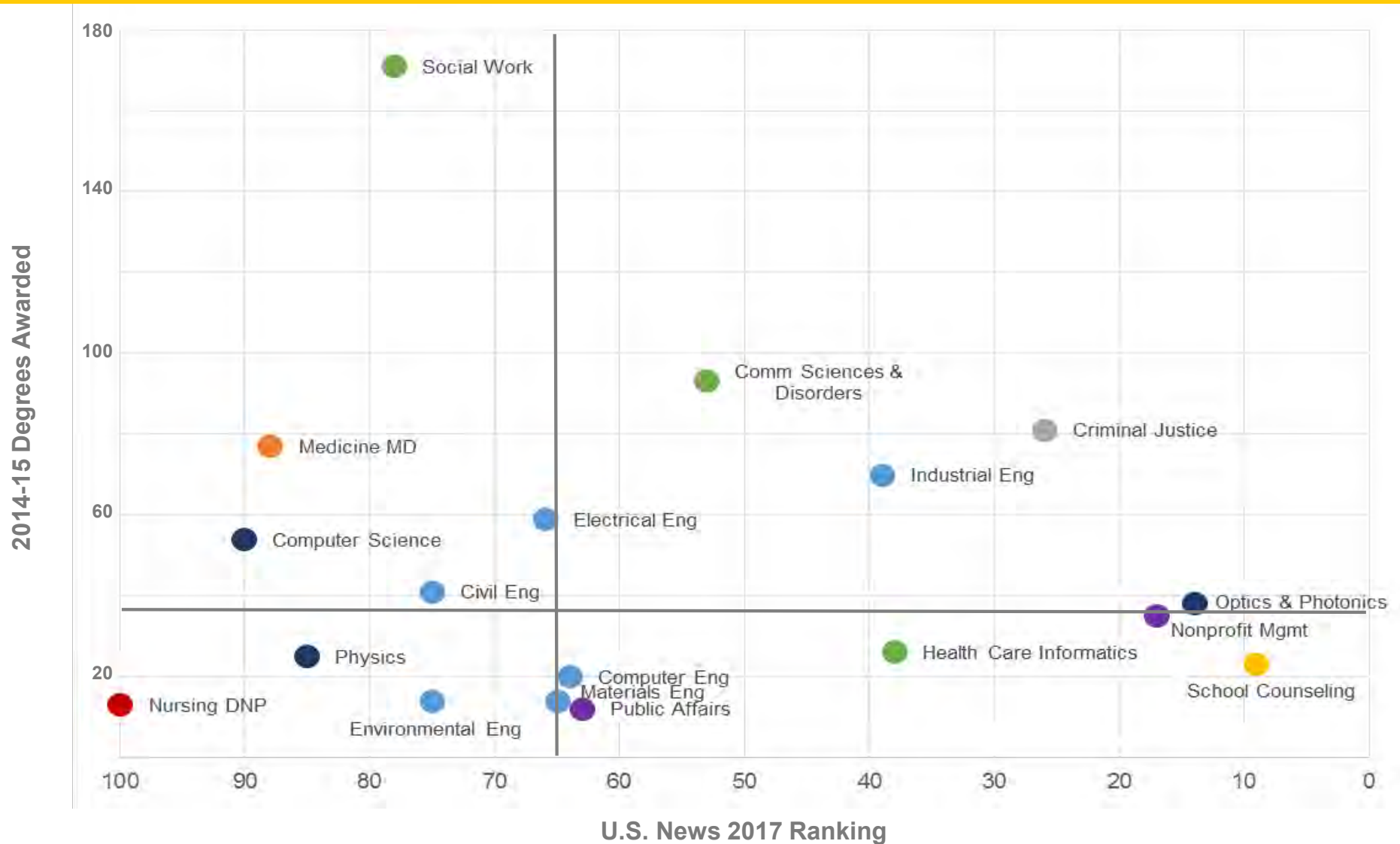
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National Preeminence Rankings

- ## Various rankings can serve as proxy for national preeminence, including:

  - *U.S. News and World Report* – Best Graduate Colleges

  - *The Princeton Review* – Top Gaming Programs

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U.S. News Graduate Program Rankings

- "Specialty" rankings based solely on nominations from school deans from the list of schools surveyed
- Can select up to 10 top programs in each area
- Numerically ranked in descending order based on number of nominations received
- At least seven nominations must be received to be ranked

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Graduate Program Rankings vs. Degrees Awarded

Orlando Megatrends and UCF's strengths

- Nation's largest cluster of modeling, simulation, and training companies

- Orlando has a $9 billion digital media industry and is among nation's top 10 largest digital media clusters

- Top producing region for engineers in aviation, aerospace, and defense industry

- First U.S. destination to surpass 60 million tourists

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Intellectual Anchor for Industry Clusters

- Rosen College of Hospitality Management in heart of tourism corridor

- College of Medicine in Lake Nona Medical City

- Institute for Simulation and Training in Central Florida Research Park

- UCF Downtown for digital media and healthcare technology in our urban core

- ICAMR for advanced manufacturing and next-generation technologies in Osceola County

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Academic Program Presentations

Graduate Programs
- Modeling and Simulation
- Optics
- Student Counseling

Graduate and Undergraduate Programs
- Aerospace Engineering
- Digital Media
- Interactive Entertainment
- Health Management Informatics

Undergraduate Programs
- Hospitality Management

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Modeling and Simulation for Training Graduate Program (MST)

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MODELING & SIMULATION
GRADUATE PROGRAM

Modeling and Simulation Overview

- **The only truly trans-disciplinary program within UCF**

General Content Areas of Focus

| Simulation Modeling and Analysis | Simulation in Health Care | Human Systems in Modeling and Simulation | Computer Visualization in Modeling and Simulation | Interactive Simulation and Intelligent Systems | Simulation Infrastructure | Simulation Management |

The UCF Modeling and Simulation curricula permit students to customize their learning across UCF based on their educational and career experience, interests, and goals. Currently involves five colleges.

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Graduate Programs and Enrollment

Joseph J. LaViola, Jr, Ph.D.

Graduate Program Director

Sabrina Gordon, M.A.

Graduate Program Coordinator

Programs Offered

1 Modeling and Simulation Ph.D.

2 Modeling and Simulation M.S.

3 Modeling and Simulation of Technical Systems Graduate Certificate (G.C.)

4 Modeling and Simulation of Behavioral Cybersecurity Graduate Certificate (G.C.) **NEW!**

Graduates

M.S. 327

Ph.D. 83

G.C. 16

Grand Total 398

Since 2001 through Spring 2016

Would like to grow from 150 students enrolled each year to 250 by academic year 2019-20
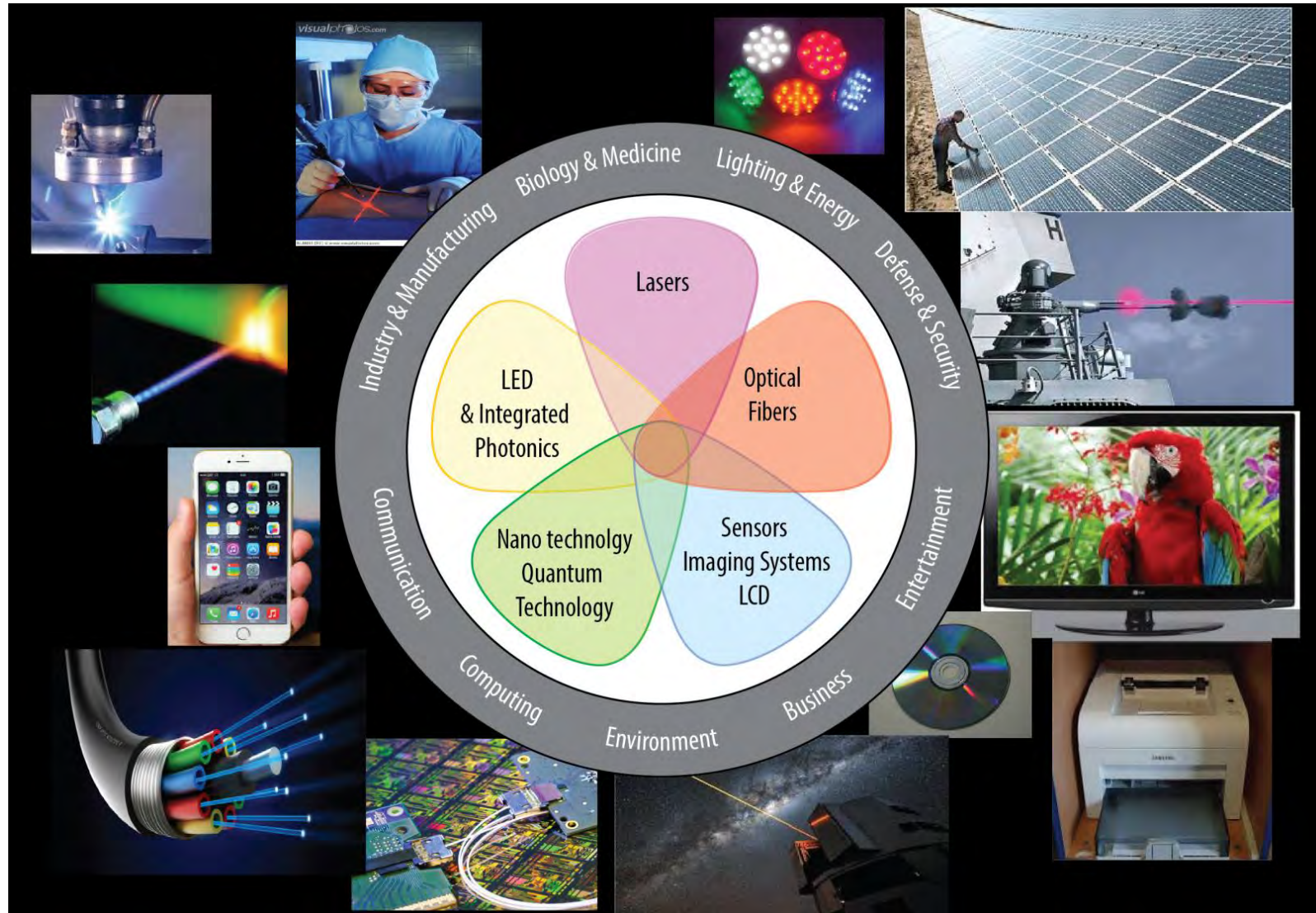
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Where Modeling and Simulation Is Expanding

- **Substantial growth opportunity in health modeling and simulation**
  - College of Nursing has created certificate program
  - Medical City, College of Medicine, College of Nursing, and COHPA
  - VA Hospital and VA SIMLEARN center in Orlando

- **Human aspects of cyber security – Certificate created**
  - Adversary culture and behavior capture and modeling
  - Individual behavior and team aspects of cyber defense
  - Insider threat behavior, modeling, and mitigation

- **Unmanned systems**
  - Human-system interface for robots
  - Incorporate robots into teams
  - Modeling team and ambient culture

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Modeling and Simulation Program Needs

- **Recognition as an academic unit**
  – Ability to grant tenure
  – Ability to have SCHs, more access to graduate research assistants

- **Faculty**
  – Historically primarily Institute for Simulation and Training research faculty members and adjuncts
  – Hiring two tenure-earning faculty members, with plans to hire three more
  – Need better mechanisms for recognition of cross-unit teaching, co-teaching
  – Funding to support research faculty to teach

- **Support for students**
  – New lab equipment and funding for conferences for students
  – Additional support for master's and doctoral students and administrative support
  – Funding for pilot studies in conjunction with other academic units

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Preeminence in Biomedical Optics and Biophotonics

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College of Optics and Photonics Overview

- **Rankings**
  - National Research Council: Top 5-12 among Electrical Engineering Ph.D. programs
  - *U.S. News*: 14th top atomic, molecular, and optical sciences program

- **Faculty**
  - World-renowned scholars, fellows, editors of top journals, and leaders of professional societies

- **Students and Graduates**
  - 280 Ph.D. degrees awarded
  - 400 master's degrees awarded
  - New B.S. degree program with growing enrollment

- **Research**
  - About $15 million in external funding in 2015
  - 280 patents
  - Industrial affiliates program with 62 companies in 2016
  - 26 spin-offs and 5 incubated startups

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Targets and Benchmarks

- **Targets**
  - Convert our nascent, fragmented bio research into a mature program integrated with clinical research at UCF College of Medicine and Orlando hospitals
  - Funding targets:
    - 5 National Institutes of Health R21 grants ($300,000-$400,000 per grant)
    - 3 National Institutes of Health R01 grants (> $1 million per grant)

- **Benchmarks**
  - The biophotonics program at Beckman Institute (UC Irvine or University of Illinois Urbana-Champaign)
  - A campus-wide institute similar to BIO5 Institute at University of Arizona (led by a Ph.D. professor and an M.D. professor)

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Biophotonics Faculty and Partnerships

UCF Biophotonics Faculty

Aristide Dogariu
Konstantin Vodopyanov
Ayman Abouraddy
Sean Pang
Ryan Gelfand
Kuy Young Han

Potential Partnerships:

- Center for Research and Education in Optics and Lasers (CREOL)
- College of Engineering and Computer Science
- College of Medicine
- College of Sciences
- International Consortium for Advanced Manufacturing Research (ICAMR)
- NanoScience Technology Center at UCF

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Optics and Photonics Program Needs

- **Faculty**
  - Establish a chaired professorship and recruit an eminent senior scientist, along with three junior faculty members
  - New faculty cluster with joint appointment in COM and in partnership with existing faculty will provide critical mass to secure large funding and possibly an externally-funded center or institute

- **Resources**
  - Salaries and startup for new faculty hires
  - Office and lab space
    - 1,000 square feet for offices
    - 2,000 square feet for labs on main campus
    - Additional lab space in COM and access to clinical facilities

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Counselor Education Program

CEDHP Counselor Education Graduate Program Ranks Ninth Nationally

Department of Child, Family, and Community Sciences
College of Education and Human Performance

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Counselor Education Program Overview

UCF Counselor Education Program

- Ranked ninth by *U.S. News & World Report*
- Nationally accredited by CACREP
- Prepares counseling professionals to work in schools, universities, community mental health settings, institutions, hospitals, and private practices throughout Florida
- 285 graduate students enrolled

Degrees	Credits Hours	Enrollment
Marriage, Couple, & Family Therapy (M.A.)	63 credits	62 graduate students
Mental Health Counseling (M.A.)	63 credits	135 graduate students
School Counseling (M.A., M.Ed.)	60 credits	63 graduate students
Ph.D. in Education, Counselor Education	84 credits	25 doctoral students

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Faculty and Community Engagement Vision

Faculty and Program Excellence

Vision: Premier counselor education faculty and program in the country

1. **Program Ranking**
   - Ninth-best graduate program, *U.S. News & World Report* (Spring 2016)
2. **World-Renowned Faculty and Program**
   - Four ACA Fellows
   - ACES Outstanding Counselor Education Program
3. **Significant Federal External Research Funding**
   - Project Harmony, 2015-20; $9.7 million
   - Project Together, 2011-15; $8.7 million
4. **Professional Leadership and Impact**
   - National journal editors
   - Faculty member citations

Community Engagement

Vision: Greatest partnership counselor education program in the country

1. **Marriage and Family Research Institute (MFRI)**
   - Provides couple and relationship education to over 7,000 low-income and culturally-diverse couples and individuals in Central Florida
2. **Community Counseling and Research Center (CCRC)**
   - 1,800 community members served annually, equating to $1.8 million saved by the community
3. **Counseling Partnership with Seminole County Public Schools**
   - Provides over 500 free after-school counseling sessions to Title I elementary school students and their families annually

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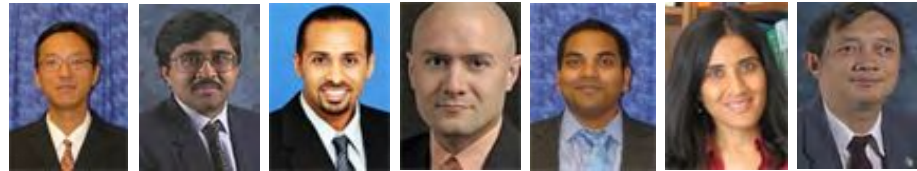
Path to Preeminence Over Next Five Years

- **Program Ranking and Recognition**
  - Increase "Best Graduate Program" ranking in *U.S. News & World Report*
  - Continue to receive programmatic national award recognition

- **Faculty Excellence and Impact**
  - Increase number of ACA Fellows
  - Increase number of faculty scholarly research citations

- **Significant External Research Funding**
  - Increase external federal research funding by $1 million

- **Community Engagement**
  - Continue enhancing partnerships with school districts and agencies

- **Maximize Counselor Education Doctoral Students' Research Productivity**
  - Continue increasing Ph.D. student graduates' placement in tenure-track positions at research-intensive universities

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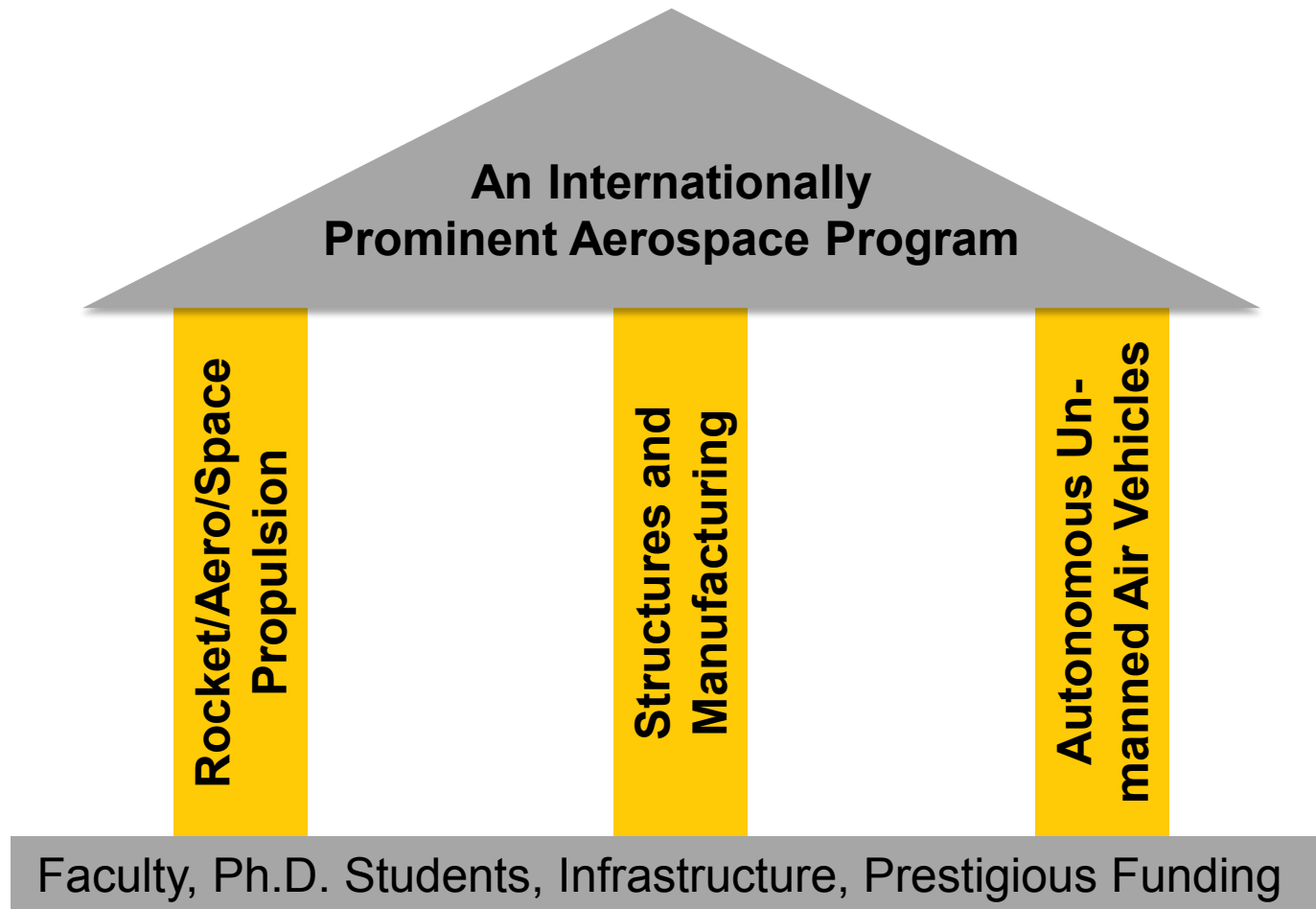# Aerospace Engineering Program

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Aerospace Engineering Overview

- **Seven Core Faculty Members**

- **One Center**
  - Center for Advanced Turbomachinery and Energy Research (CATER)
  - Seven core faculty from the aerospace, mechanical, and civil engineering programs

- **Research Areas**
  - Combustion
  - Propulsion
  - Aerodynamics
  - Structural dynamics and adaptive structures
  - Mechanics of aerospace materials and structures
  - High-temperature coatings
  - Alternative fuels
  - Laser diagnostics
  - Shock wave physics and chemistry
  - Control for single or cooperative vehicles
  - Guidance and navigation

- **Research Expenditures**
  - $1 million – $1.5 million annually

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Vision: Areas of Excellence

An Internationally Prominent Aerospace Program

Rocket/Aero/Space Propulsion

Structures and Manufacturing

Autonomous Un-manned Air Vehicles

Faculty, Ph.D. Students, Infrastructure, Prestigious Funding

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Traits of a Prominent Aerospace Program

- High-caliber faculty, including National Academy of Engineering (NAE) members
- Top 20 program in the nation, according to *U.S. News & World Report*
- Two or three distinct areas of excellence
- Unique, multi-million dollar infrastructure
  - High-end subsonic, transonic, and supersonic wind tunnel facilities
- Excellent Ph.D. students
  - Enrollment: 40-50
  - Graduation rate: 10-15 annually
- Publications in elite journals
- Large, prestigious funding awards
  - Several multi-million dollar, multi-year awards
  - Average annual research expenditure of $300,000-$400,000 per faculty member
- High visibility across government agencies and scientific communities
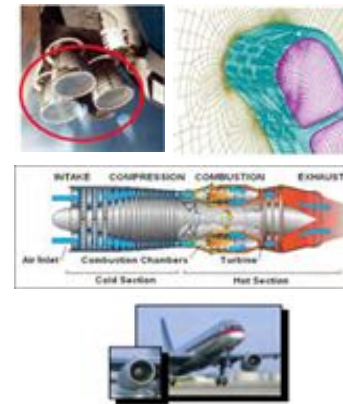
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Pillar One: Rocket/Aero/Space Propulsion

- **People**
  - Five new faculty lines to add to the existing 11 current or incoming CATER faculty
  - 20 Ph.D. fellowships
  - Four post-doctoral associates

- **Infrastructure**
  - High-temperature, high-pressure wind tunnels
  - Flexible additive manufacturing TestBed
  - High-pressure shock tube

- **Strategic Collaborators**
  - Institute for Simulation and Training, College of Optics and Photonics, International Consortium for Advanced Manufacturing Research, Physics, and Chemistry
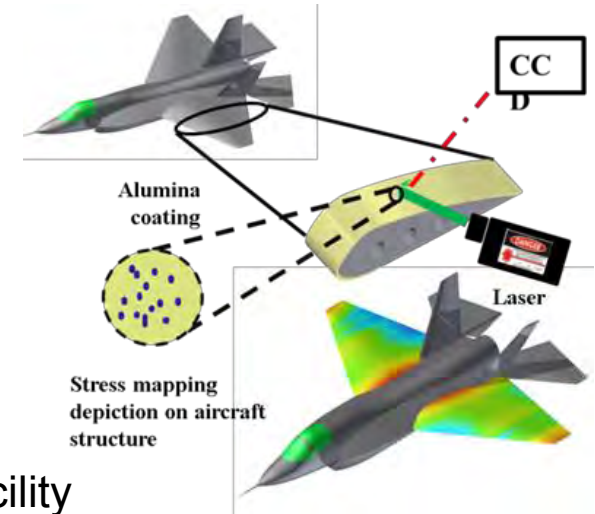
- **Funding**
  - NASA, U.S. Department of Defense, GE, Aerojet Rocketdyne, Pratt & Whitney, Airbus, Blue Origin, and ATK Orbital

- **Funding Target**
  - $5 million per year of new funding

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Pillar Two: Structures and Manufacturing

Alumina coating

Stress mapping depiction on aircraft structure

- **People**
  - Three new faculty lines
  - Five Ph.D. fellowships
  - Five post-doctoral associates

- **Infrastructure**
  - Structures and structural dynamics integrity testing facility
  - Advanced manufacturing facility (laser and e-beam additive and removal)

- **Strategic Collaborators**
  - College of Optics and Photonics, International Consortium for Advanced Manufacturing Research, Institute for Simulation and Training, and Florida Space Institute

- **Funding Target**
  - $2 million per year of new funding

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Pillar Three: Autonomous, Un-manned Air Vehicles

- **People**
  - A National Academy of Engineering member
  - Two new faculty lines (aerodynamics, operation, and traffic management)
  - Three Ph.D. fellowships
  - Two post-doctoral associates

- **Infrastructure**
  - 20-foot high, 2,000-square-foot hanger
  - Test field

- **Strategic Collaborators**
  - College of Engineering and Computer Science, Institute for Simulation and Training, Kennedy Space Center, and agriculture stations around Florida

- **Potential Funding Resource**
  - National Science Foundation, Air Force Office of Scientific Research, Florida Transportation, Army, Office of Naval Research, U.S. Department of Agriculture

- **Funding Target**
  - $2 million per year of new funding

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Preeminence in Digital Media Programs

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Digital Media Overview

- ## Rankings
  - *Animation Career Review*: No. 20 out of 50
  - *Top 50 Game Design Schools and Colleges in the U.S., 2016*: No. 5 out of 10 in the South

- ## Faculty and Students
  - 18 faculty and about 800 undergraduate majors within the School of Visual Arts and Design

- ## Degree Programs
  - Undergraduate emphasis on game design, web design, and character animation
  - B.A., M.A., and M.F.A. programs and alliance with Texts and Technology Ph.D. program

- ## Research
  - Interdisciplinary backgrounds bridging storytelling, art, and technology

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Benchmarks

- **Rankings**: *The Princeton Review, Animation Career Review, U.S. News & World Report, The Chronicle of Higher Education*

- **Benchmark institutions**: University of Florida, Carnegie Mellon's Entertainment Technology Center, Georgia Tech

- Academic program review

- State performance metrics

- Student engagement metrics

- External research funding data

- Data indicating impact on local, regional, and state economy (internships secured, career placement, etc.)

Nadya Sudjita ('17)

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Vision and Path to Preeminence

ZOOTOPIA CREW
Kendall Litaker ('09), *Asst. Technical Director*
Mike Navarro ('09), *Character Technical Director*
Michael Woodside ('08), *Animator*
Elissa Cordero Hansen ('06), *Stereoscopic Artist*

JUST ZOO IT.

Vision

- To offer premier digital media undergraduate programs and nationally-recognized graduate programs known for academic rigor, technological innovation, community engagement, and economic impact

Path to Preeminence

- Facilitate "lab to classroom" and "classroom to lab" models for student-engaged research collaborations

- Build nationally recognized models for student support, advising, and alumni success

- Create a strong externally-funded research program (more than $2 million a year) with graduate student involvement

- Catalyze entrepreneurship and commercialization for student- and faculty-led initiatives

- Support active and vibrant industry partnerships, especially downtown

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Digital Media Program Needs

- Bring UCF in line with top-tier national programs in terms of student-faculty instructional ratios

- Allow more time for conducting research and mentoring graduate students

- Create a research cluster with senior leadership in an emerging research area of strategic importance to UCF (e.g., Internet of things, VR, games, or mobile)

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M.S. Interactive Entertainment

Who We Are

The Florida Interactive Entertainment Academy and UCF's Center for Emerging Media are home to a diverse group of teachers, learners, and industry professionals collaborating in a creative environment that emphasizes high-production values, cutting-edge technologies, and time-tested production techniques.

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Interactive Entertainment Overview

Top 5 National Recognition

- Currently ranked No. 1 by *The Princeton Review* for North American Graduate Programs

What Works?

- **Innovative Learning Models**
  - Student development focus
  - Rigor and consistent advising

- **Access**
  - Connector to learning environments
  - Pipeline to community and industries

- **Impact**
  - Diverse employment creator
  - Global branding
  - Life-long learning

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Program Results

- Over 80 percent of each class hired in desired field

- 130+ companies have hired graduates

- Average starting salary of $63,000

- Credibility with industries

Competitive programs include: University of Southern California, Southern Methodist University, Carnegie Mellon, and University of Utah

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Moving Forward

Vision

FIEA will be the anchor of a leading education and industry cluster that will enable Central Florida to compete with Silicon Valley and Central Texas as the East Coast leader and a global technology hub

Metrics

- Industry leader in job creation – placement rate and average starting salaries
- *The Princeton Review* – No. 1-ranked North American Graduate Program (top five since inception)
- Recognized as a community partner
- Expand in strategic areas of research and partnerships

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Paths to Greater Preeminence

Entrepreneurship

- Expand FIEA Ventures and startup opportunities

Leadership (Academy)

- Development and diversity focus
- Production and art specific
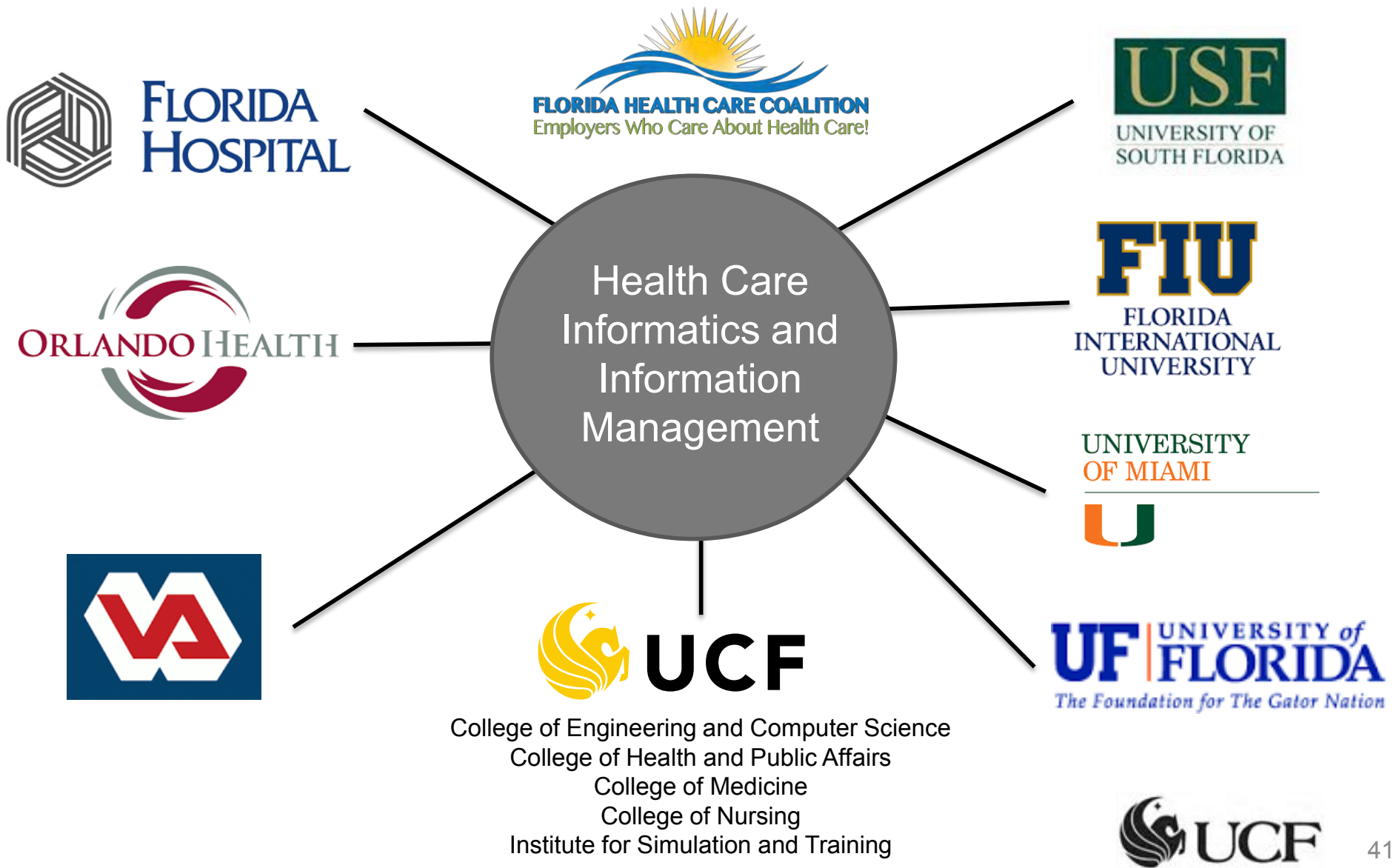- Additional faculty and staff

Research

- UCF colleges and target industries
- Collaboration with FIEA Ventures
- STEM funding opportunities

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Health Management and Informatics

"Using Informatics to Connect Individuals, Communities, and Populations"
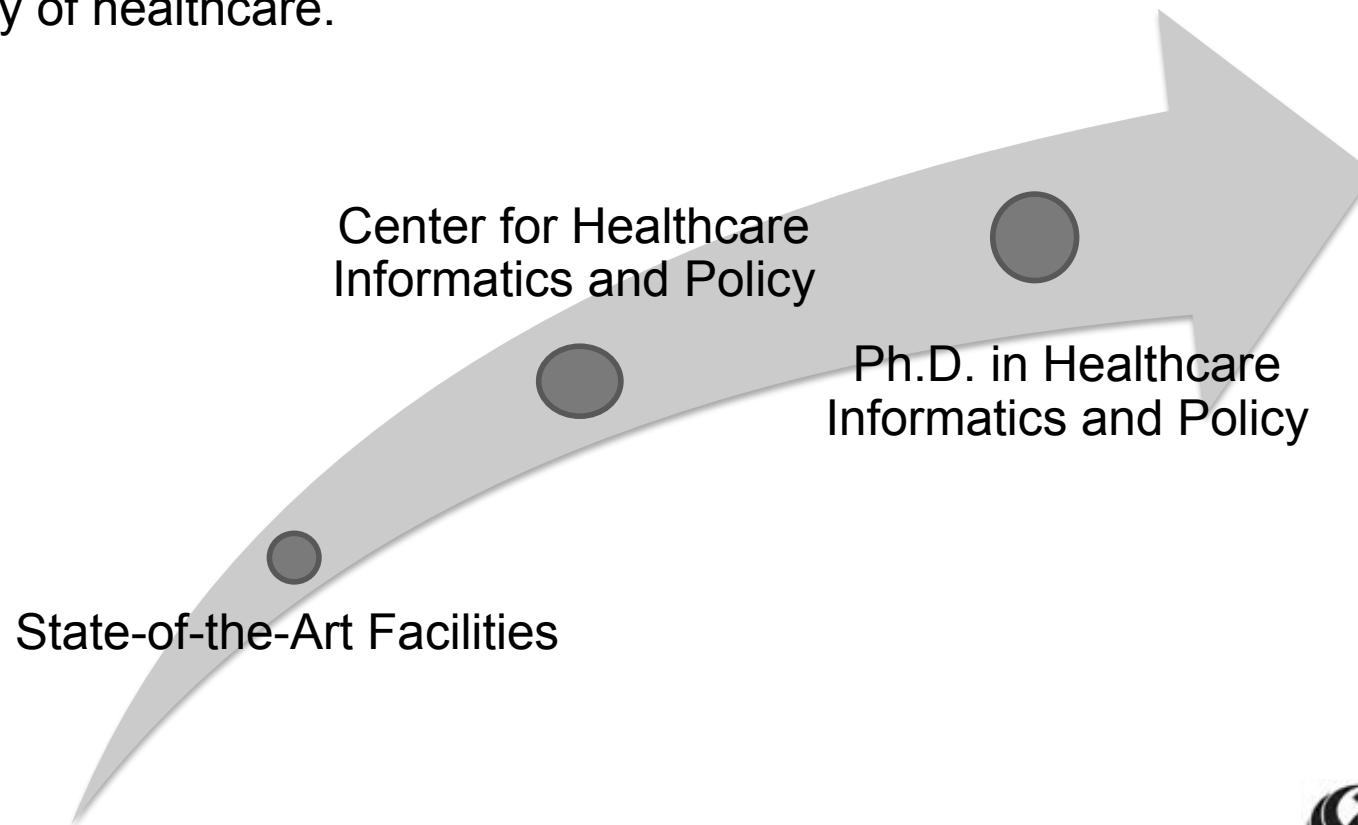
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Health Management and Informatics Overview

College of Engineering and Computer Science
College of Health and Public Affairs
College of Medicine
College of Nursing
Institute for Simulation and Training

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Path to National Preeminence

Vision

Become the premier informatics program in the nation by leveraging informatics to connect individuals, communities, and populations; thus, transforming the delivery of healthcare.

Center for Healthcare
Informatics and Policy

Ph.D. in Healthcare
Informatics and Policy

State-of-the-Art Facilities

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Assessing Impact

- Registered Health Information Administrator (RHIA) pass rate 90 percent (National average 75 percent)

- Enrollment increase of 20 percent by 2020

- Top 5 informatics program nationally within five years

- Nationally-recognized and ranked Ph.D. program by Year 10

- Center for Healthcare Informatics and Policy will secure at least $1 million in external funding by Year 4

- Become the leader and preferred partner for healthcare informatics research

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Rosen College of Hospitality Management

Leading the Way of Hospitality Education

Hospitality Management Overview

- **The fastest-growing and the second-largest hospitality management program in the world**
  - Consistently ranked among the top three or top five programs worldwide

Undergraduate programs

- Hospitality Management
- Foodservice and Lodging Management
- Event Management
- Entertainment Management

Program tracks

- Theme Parks and Attractions Management
- Professional Tennis Management

Graduate programs

- Hospitality and Tourism Management M.S.
- M.S. dual degrees with Portugal, Italy, and China
- M.S. for medical students
- Destination Marketing and Management (Certificate)
- Event Management (Certificate)
- Hospitality Management Ph.D. (only one in Florida, one of seven in U.S.)

Minors

- Hospitality Management
- Event Management

How did we do it?
By leveraging size and location to create and sustain a culture of hospitality, entrepreneurship, and innovation

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Vision and Core Values

Vision

- Be the recognized leader in hospitality and tourism education, research, scholarship, and industry partnership worldwide
- Be ranked as the world's No. 1 comprehensive hospitality management program by 2020

Mission

- Four-year mission to explore new fields of endeavor, to seek out new educational and research opportunities, and to boldly go where no hospitality program has gone before

Core Values

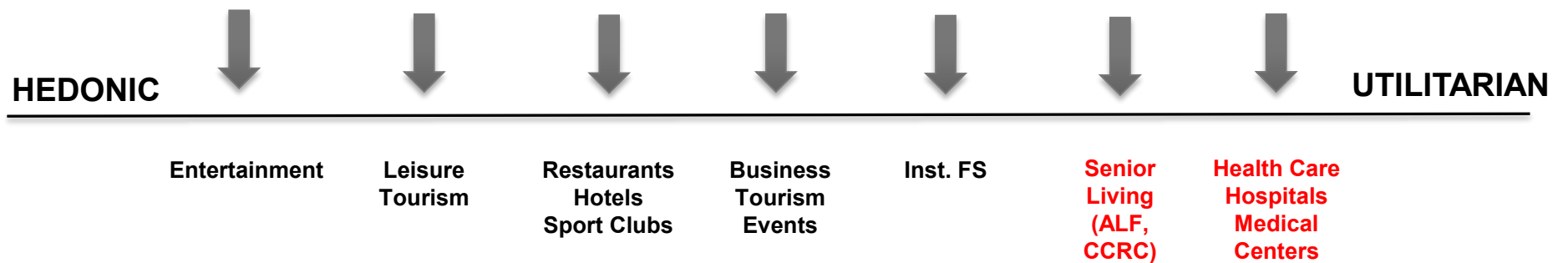- Professionalism
- Leadership
- Service

Benchmarking Institution

- Cornell Hotel School

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Road Map for the Future

HOSPITALITY MANAGEMENT AND THE HEDONIC-UTILITARIAN SCALE

HEDONIC   **UTILITARIAN**

| Entertainment | Leisure Tourism | Restaurants Hotels Sport Clubs | Business Tourism Events | Inst. FS | Senior Living (ALF, CCRC) | Health Care Hospitals Medical Centers |

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Hospitality Management Program Needs

Enabling the Rosen College to be the best of its kind by expanding its reach into the healthcare industry
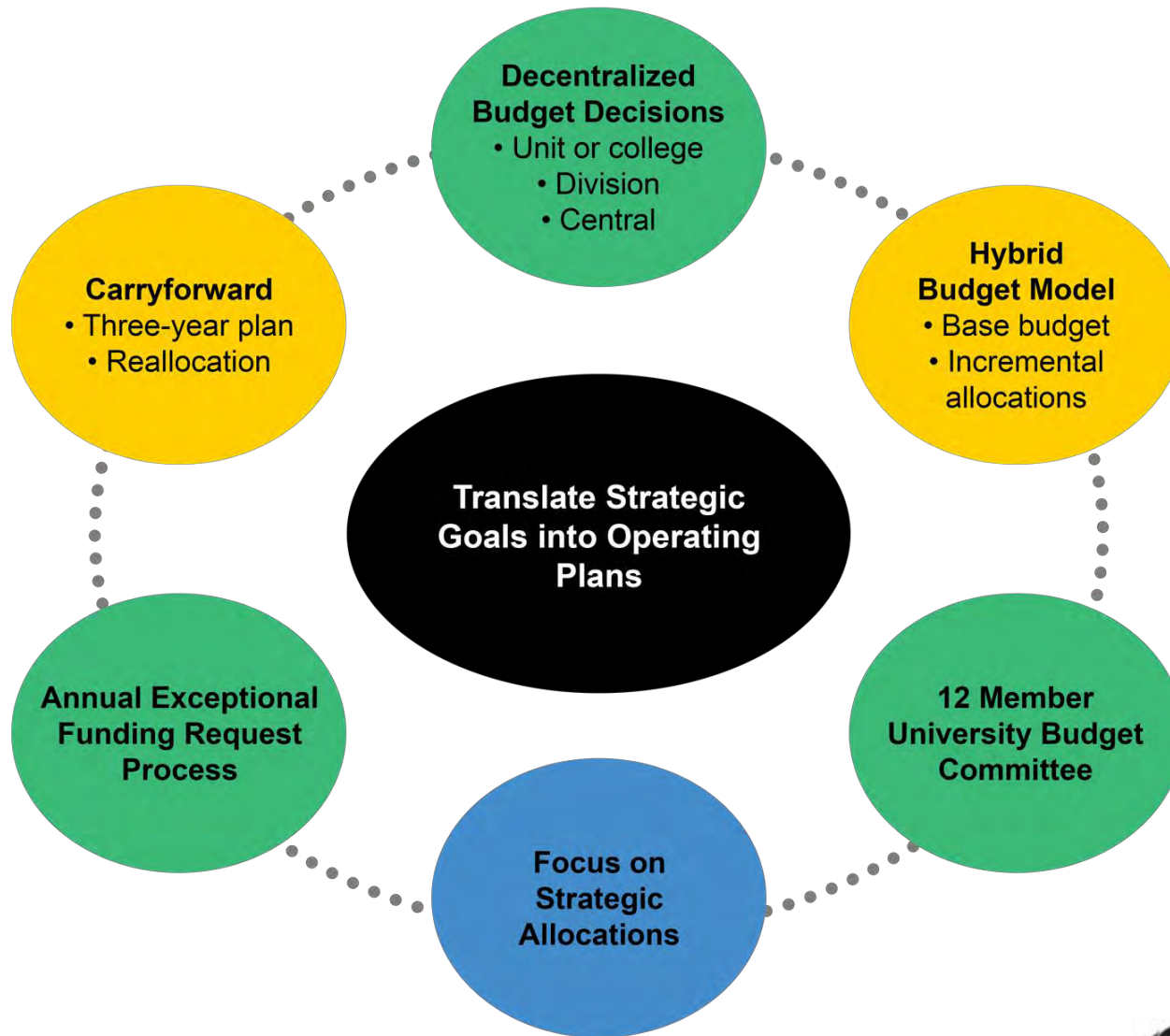
- Create an undergraduate degree program in **Senior Living Management in partnership with the College of Nursing**

  - This degree will prepare young women and men to work in the burgeoning industry of institutionalized senior living industry

  - A close examination of the operation of all senior living facilities will reveal that the highest common denominator among all of them is the provision of hospitality services such as accommodation, food service, recreation, entertainment, and opportunities to socialize

  - Medical and nursing services are crucial, as they are the "push" factor that bring clients to these facilities in general, but the quality of hospitality services are the "pull" factor that make clients choose one facility over another

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Core Strategies to Achieve Preeminence

- ## How do we get there?
  - – Investing in key talent
  - – Investing in infrastructure
  - – Defining our distinctive strengths and discovering areas of opportunity
  - – Making tough decisions

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University Budget Process

Decentralized Budget Decisions
• Unit or college
• Division
• Central

Hybrid Budget Model
• Base budget
• Incremental allocations

Carryforward
• Three-year plan
• Reallocation

Translate Strategic Goals into Operating Plans

Annual Exceptional Funding Request Process

12 Member University Budget Committee

Focus on Strategic Allocations

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Learning from Our Successes

- History of innovation and entrepreneurship

- Developing nationally-renowned centers and institutes of excellence

- Faculty-driven academic programs that leverage our strengths and find unique areas of opportunity

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Contributions of the Centers and Institutes

Major UCF Research Centers and Institutes

- Institute for Simulation and Training (IST)

- Center for Research and Education in Optics and Lasers (CREOL)

- Florida Solar Energy Center (FSEC)

- Florida Space Institute (FSI)

- NanoScience Technology Center (NSTC)

- Center for Research in Computer Vision (CRCV)

- Advanced Materials Processing and Analysis Center (AMPAC)

- Burnett School of Biomedical Sciences (BSBS)

Centers and Institutes' Accomplishments

- Four offer internationally-recognized research and graduate programs
  - Institute for Simulation and Training (IST)
  - Center for Research and Education in Optics and Lasers (CREOL)
  - NanoScience Technology Center (NSTC)
  - Center for Research in Computer Vision (CRCV)

- Very high impact on the Florida economy
  - New companies created and new patents awarded

- Four units consistently produce more than 50 percent of all research grants within UCF
  - College of Engineering and Computer Science, IST, CREOL, and College of Sciences

- Pioneering how UCF will substantially grow research
  - Research faculty and trans-disciplinary clusters

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Creating New Opportunities

- ICAMR

- Applied Research Institute

- Faculty Cluster Initiative

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ICAMR

The world's first industry-led consortium (501c6 non-profit) for the manufacturing of smart sensors

International Consortium for Advanced Manufacturing Research

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Goals

World-class facility that supports state-of-the-art R&D and positions Central Florida to be an early leader in the evolution of the global $32.5 trillion per year sensor-driven economy.

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Startup Funding of Over $200 Million

iCAMR

Osceola County

- **$168 million** from Osceola County
- **Design, build, and equip** 100,000-square-foot center
- **20 acres,** plus in-kind support for power, water, and waste disposal

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- **$10 million** non-state and non-tuition funds to design and build center and start-up costs
- **$7 million** in-kind for focused hires and resource support
- **30-year lease** of center from Osceola County at $1 per year

FHTCC

- **$1 million** for initial operating cost
- **Up to $5 million** matching funds over five years for specific research projects
- **$750,000** from USF, FIU, and UF

State of FL

- **$5 million** per year for operations
- **$10 million** tools and equipment
- **$2 million** QACF

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A New Era of International Collaboration

iCAMR

Innovation networks and open innovation programs that bring industry, universities, and governments together

Industry
- Emerging technologies
- Opens access to lowest-cost manufacturing

Universities
- Universities in U.S., Europe, and Asia
- Enables competitive pursuits in expanded areas of interest
- New ideas and approaches

Government
- State of Florida
- National research labs and agencies
- Attract joint funds

Suppliers
- Equipment
- Materials
- Software
- Industry R&D labs and programs

UCF

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Industry and Government

Increasing industry and government interest in ICAMR

- Enabled UCF to secure a significant role on the MIT-lead and Department of Defense-sponsored $300 million+ smart fiber National Network of Manufacturing Innovation (NNMI)

- Lead partner for a $349 million advanced sensors DOC NNMI (under evaluation)

- Supporting University of Texas on a $200 million+ Department of Energy initiative (under evaluation)

- Finalizing our design center concept (announcement expected July 2016)

- First multi-million dollar industry project for the design center identified

- Building complete March 2017

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UCF Applied Research Institute

- Launched by the Research Foundation to assist in securing large collaborative research projects and enhance the university's interdisciplinary work and growing partnerships

- Help bridge the technology "valley of death" – the chasm that often occurs between basic research and innovation

- Create a centralized location where faculty members can team together to apply for grants, and where students can find resources, training, and research opportunities in areas where funding is available

- Initially focus on areas that align with Florida's economic development needs, such as photonics, modeling and simulation, engineering, and biomedicine

UCF

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Faculty Cluster Initiative

- **Interdisciplinary teaching and research initiative hiring 33 new faculty members**

  - Cyber Security and Privacy

  - Energy Conversion and Propulsion

  - Genomics and Bioinformatics

  - Prosthetic Interfaces

  - Renewable Energy Systems

  - Sustainable Coastal Systems

- Each of these clusters involves faculty members from multiple colleges and departments – many from UCF's top 100-ranked programs by *U.S. News & World Report*

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Why Faculty Clusters?

- Exploring solutions to today's toughest scientific and societal challenges at the fringes of disciplines – with broad applications across different issues

- Hiring top talent who will advance UCF's impact as a metropolitan research university

- Developing new academic programs and research opportunities

UCF   63

What Makes UCF's Faculty Clusters Unique?

- **Renewable Energy Systems (RISES)**
  - Engineering, Computer Science, Photovoltaics (CREOL), Public Administration and Policy, Business Administration
  - No interdisciplinary power systems graduate programs currently exist
  - Builds upon UCF's local industry partnerships and federal funding priorities

- **Cyber Security and Privacy**
  - Computer Science, Electrical and Computer Engineering, Psychology, Industrial Engineering and Management Systems, Modeling and Simulation, Political Science, Statistics
  - Ties multiple disciplines together within a strategic framework
  - Builds upon UCF's prominence in cyber security – 3-time collegiate cyber defense national champions and new NSA Center of Academic Excellence in Cyber Defense

UCF

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Concluding Thoughts

- Importance of our strategic planning process

- The need to leverage our unique strengths in Central Florida environment

- The courage to make decisions that will produce the greatest impact

UCF 65

Research Benchmarking and Strategies

May 2016

UCF

UCF Research Benchmarking

- How do research expenditures at UCF compare to the research accomplished by our peers?

- Review research expenditures for UCF, three preeminent institutions, three aspirational peers and three comparison peers

- Consider core strategies and opportunities for UCF research

UCF

2

UCF Research Comparison

- Benchmarking data source: 2014 National Science Foundation Higher Education Research and Development Survey (NSF HERD)
  - Total Research and Development (R&D) Expenditures
  - Detailed Federal R&D Expenditures
  - Total R&D by Broad Disciplines

- Expenditures by UCF unit

- Awards by UCF unit

UCF

3

Comparison Group Characteristics (IPEDS, Fall 2013)

UCF			
	Medical School	**Land Grant**	**FT Tenure/ Tenure Track Faculty**
University of Central Florida	⚕		750

Preeminent Institutions			
	Medical School	**Land Grant**	**FT Tenure/ Tenure Track Faculty**
Ohio State University-Main Campus	⚕	⚠	2,492
University of Florida	⚕		2,011
The University of Texas at Austin			1,898

Aspirational Peers			
	Medical School	**Land Grant**	**FT Tenure/ Tenure Track Faculty**
Arizona State University			1,267
North Carolina State University at Raleigh	⚕	⚠	1,094
University of Cincinnati	⚕		828

Comparison Peers			
	Medical School	**Land Grant**	**FT Tenure/ Tenure Track Faculty**
Florida International University	⚕		704
University of South Florida-Main Campus	⚕		1,008
University of New Mexico-Main Campus	⚕		1,005

Source: Integrated Postsecondary Education Data System, Fall 2013

UCF

4

Total R&D Expenditures

Total R&D Expenditures

UCF	$185.6 M
PREEMINENT OHIO STATE	$815.1 M
UFL	$708.5 M
UT AUSTIN	$585.3 M
ASPIRATIONAL ASU	$426.7 M
CINCINNATI	$422.9 M
NC STATE RALEIGH	$446.1 M
COMPARISON FIU	$132.5 M
NEW MEXICO	$228.8 M
USF	$488.6 M

R&D Expenditures per Tenure/Tenure-track Faculty

UCF	$247,407
PREEMINENT OHIO STATE	$327,077
UFL	$352,325
UT AUSTIN	$308,351
ASPIRATIONAL ASU	$336,741
CINCINNATI	$510,716
NC STATE RALEIGH	$407,781
COMPARISON FIU	$188,254
NEW MEXICO	$227,710
USF	$484,763
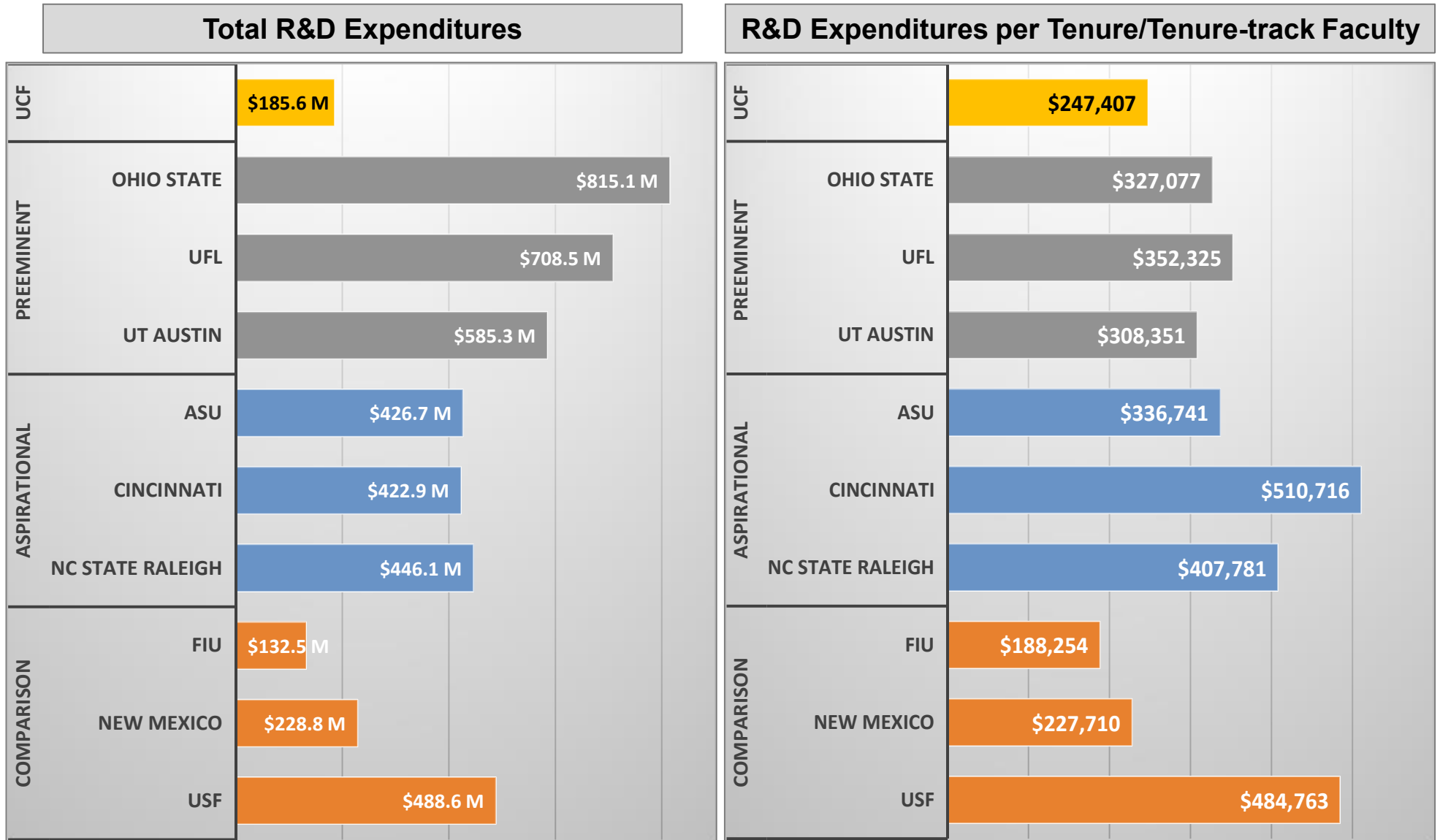
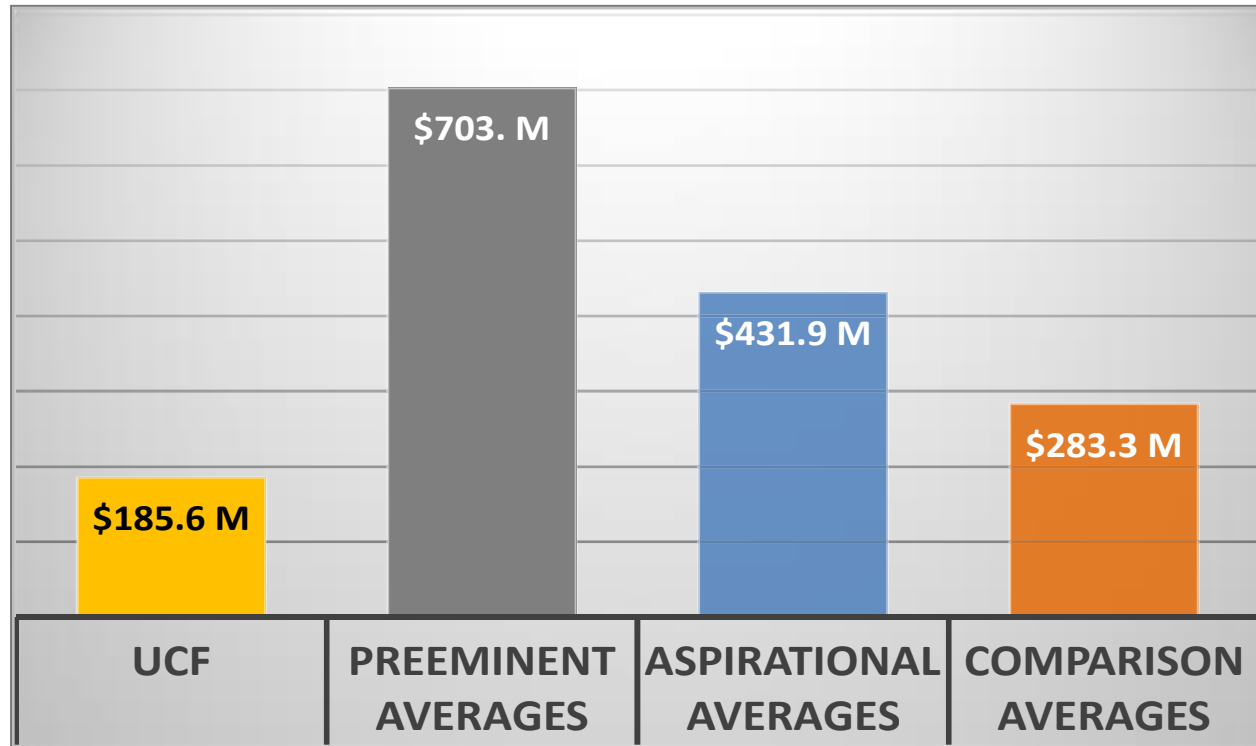*Source: 2013-14 NSF Higher Education Research and Development Survey and Integrated Postsecondary Education Data System, Fall 2013*

UCF

5

Average R&D Expenditures by Peer Group

UCF	PREEMINENT AVERAGES	ASPIRATIONAL AVERAGES	COMPARISON AVERAGES
$185.6 M	$703. M	$431.9 M	$283.3 M

Source: 2013-14 NSF Higher Education Research and Development Survey

UCF

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R&D Expenditures and Funding Sources
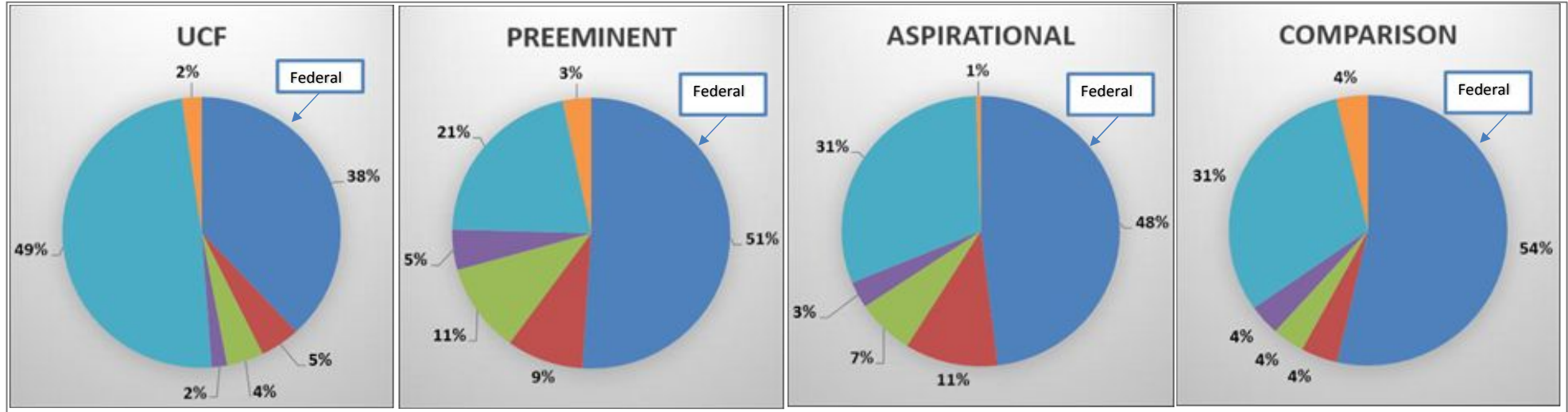
	Comparison	Aspirational	Preeminent	UCF
■ Federally Financed	$151.9 M	$207.6 M	$358.9 M	$70.7 M
■ State & Local Govt. Financed	$12.1 M	$46.7 M	$62.7 M	$8.6 M
■ Business Financed	$10.6 M	$29.1 M	$74.9 M	$8. M
■ Nonprofit Financed	$10.4 M	$13.7 M	$33.8 M	$3.3 M
■ Institutionally Financed	$87.9 M	$132.5 M	$149.5 M	$90.8 M
■ All Other Sources	$10.5 M	$2.4 M	$23.2 M	$4.2 M

Source: 2013-14 NSF Higher Education Research and Development Survey

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Federally Financed R&D Expenditures

Average Federally Financed R&D Expenditures

Category	Value
UCF	$70.7 M
PREEMINENT	$358.9 M
ASPIRATIONAL	$207.6 M
COMPARISON	$151.9 M

% of Federally Financed R&D Expenditures

UCF	PREEMINENT			ASPIRATIONAL			COMPARISON		
	OHIO STATE	UFL	UT AUSTIN	ASU	CINCINNATI	NC STATE RALEIGH	FIU	NEW MEXICO	USF
38%	56%	41%	57%	46%	58%	41%	60%	67%	46%

Source: 2013-14 NSF Higher Education Research and Development Survey

UCF

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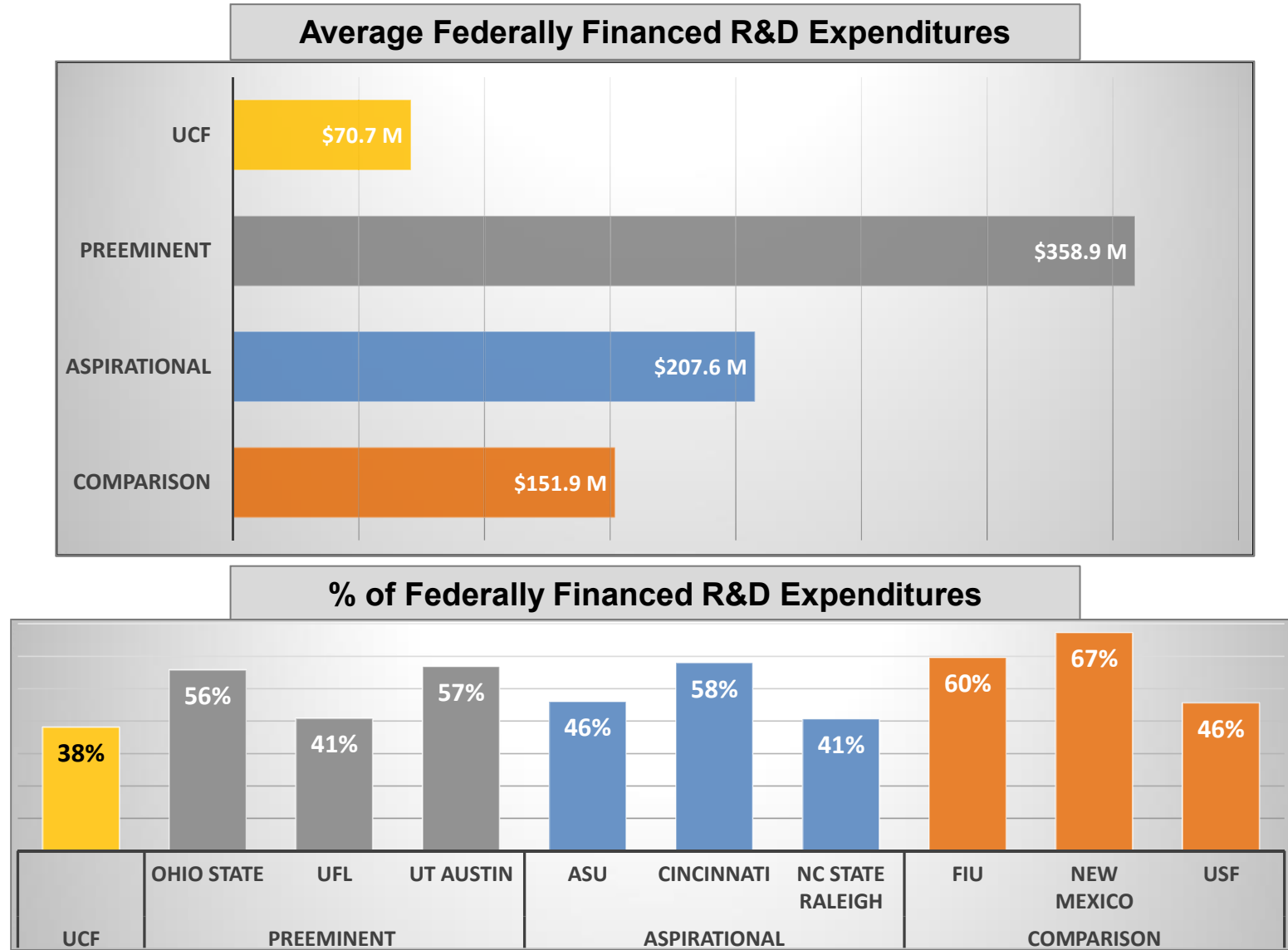
Distribution of Federal Funding by Agencies

UCF: DoD 31.7%, DHHS (Including NIH) 18.5%, DoE 15.9%, NSF 15.1%, Other 13.6%, NASA 4.8%, USDA 0.3%

PREEMINENT: DoD 16.6%, DHHS (Including NIH) 41.6%, DoE 6.9%, NSF 15.9%, Other 11.7%, NASA 2.1%, USDA 5.2%

ASPIRATIONAL: DoD 9.4%, DHHS (Including NIH) 48.3%, DoE 5.2%, NSF 17.0%, Other 13.0%, NASA 3.9%, USDA 3.2%

COMPARISON: DoD 8.7%, DHHS (Including NIH) 54.1%, DoE 3.7%, NSF 12.8%, Other 18.9%, NASA 1.3%, USDA 0.3%

Legend: DoD | DHHS (Including NIH) | DoE | NSF | Other | NASA | USDA

Source: 2013-14 NSF Higher Education Research and Development Survey

UCF

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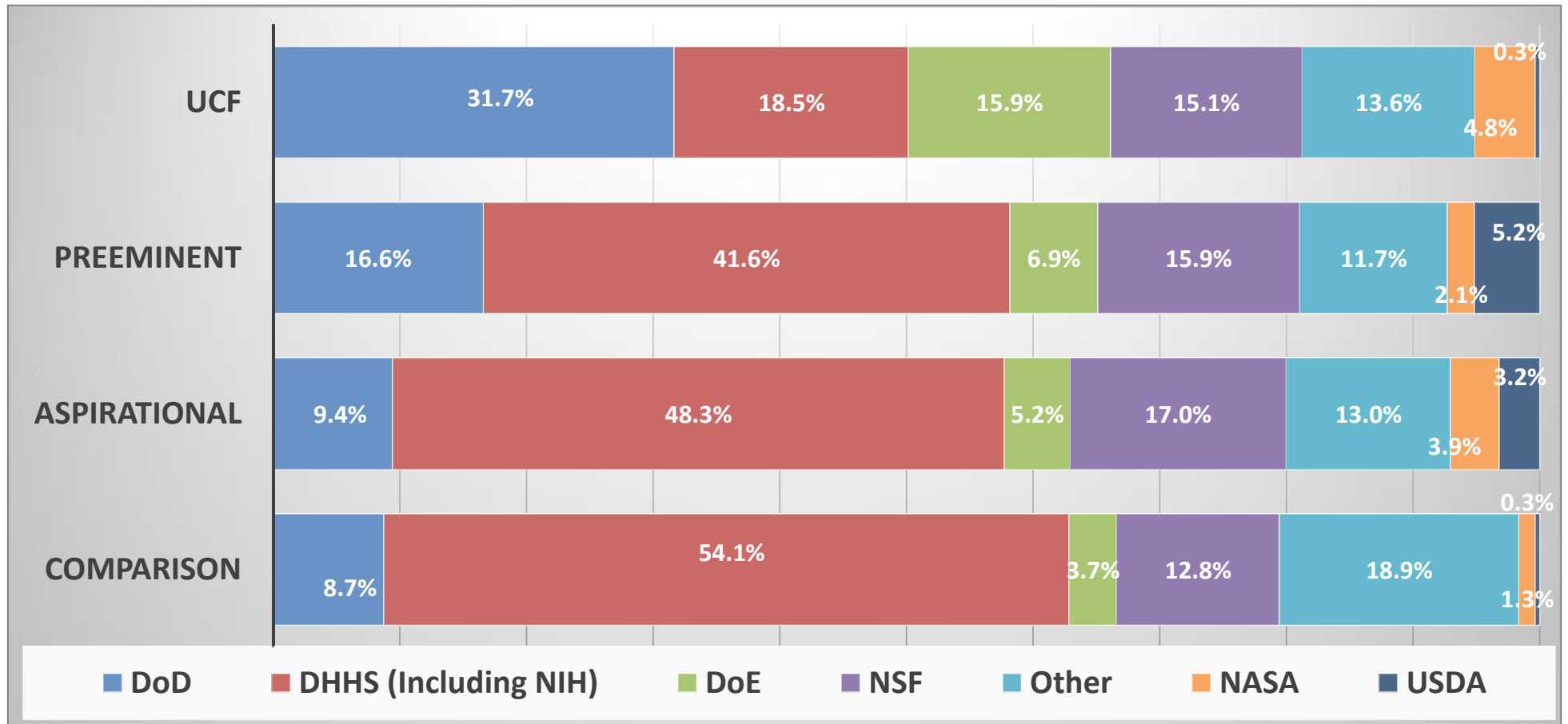
Other Federal Funding by Federal Agencies

	Total	ED	Other	USAID	DOT	NIST	VA	DOL	Commerce
UCF	$8.9 M	$1.8 M	$.2 M		$1.3 M		$.2 M		$1.1 M
Preeminent	$38.9 M	$16.6 M	$1.5 M	$3.3 M	$6.5 M		$1.8 M	$2.3 M	$3.3 M
Aspirational	$26.7 M	$2.8 M	$18. M	$.4 M	$.7 M	$2.6 M	$1.7 M		$.5 M
Comparison	$30.8 M	$8.9 M	$.3 M	$16.9 M	$5.8 M		$4.6 M	$2.6 M	$1.6 M

	DOS	Interior	OPM	USGS	SBA	NOAA	EPA	DOJ	NIJ	Treasury
UCF		$1.3 M			$1.2 M			$.8 M		
Preeminent	$2.5 M	$2.6 M					$1.2 M			$.4 M
Aspirational		$1.2 M		$1.3 M		$1. M	$.7 M	$.5 M		
Comparison	$1.4 M	$1.7 M	$1.4 M		$1.3 M		$.6 M	$.5 M	$.5 M	

	VAMC	IMLS	DHS	HUD Policy	HUD	NRC	NPS	NEH	CIA	BLM
UCF			$.3 M			$.5 M		$.2 M		
Preeminent		$.3 M	$.7 M		$.3 M	$.3 M		$.1 M	$.2 M	
Aspirational			$.2 M	$.3 M	$.2 M		$.2 M	$.2 M		$.2 M
Comparison	$.3 M		$.1 M			$.1 M				

Source: 2013-14 NSF Higher Education Research and Development Survey

UCF

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Total R&D Expenditures by Peer Group

UCF	PREEMINENT AVERAGES	ASPIRATIONAL AVERAGES	COMPARISON AVERAGES
$185.6 M	$703. M	$431.9 M	$283.3 M

Source: 2013-14 NSF Higher Education Research and Development Survey

UCF

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Broad Discipline and Subdiscipline Areas

Non-Science and Engineering (S&E) Fields	Business & Management, Communication, Education, Humanities, Law, Other Non-S&E, Social Work, Visual and Performing Arts
Engineering	Aeronautical, Bioengineering and Biomedical, Chemical, Civil, Electrical, Mechanical, Metallurgical and Materials
Physical Sciences	Astronomy, Chemistry, Other Physical Sciences, Physics
Life Sciences	Agricultural Sciences, Biological Sciences, Medical Sciences, Other Life Sciences
Social Sciences	Economics, Other Social Science, Political Sciences, Sociology

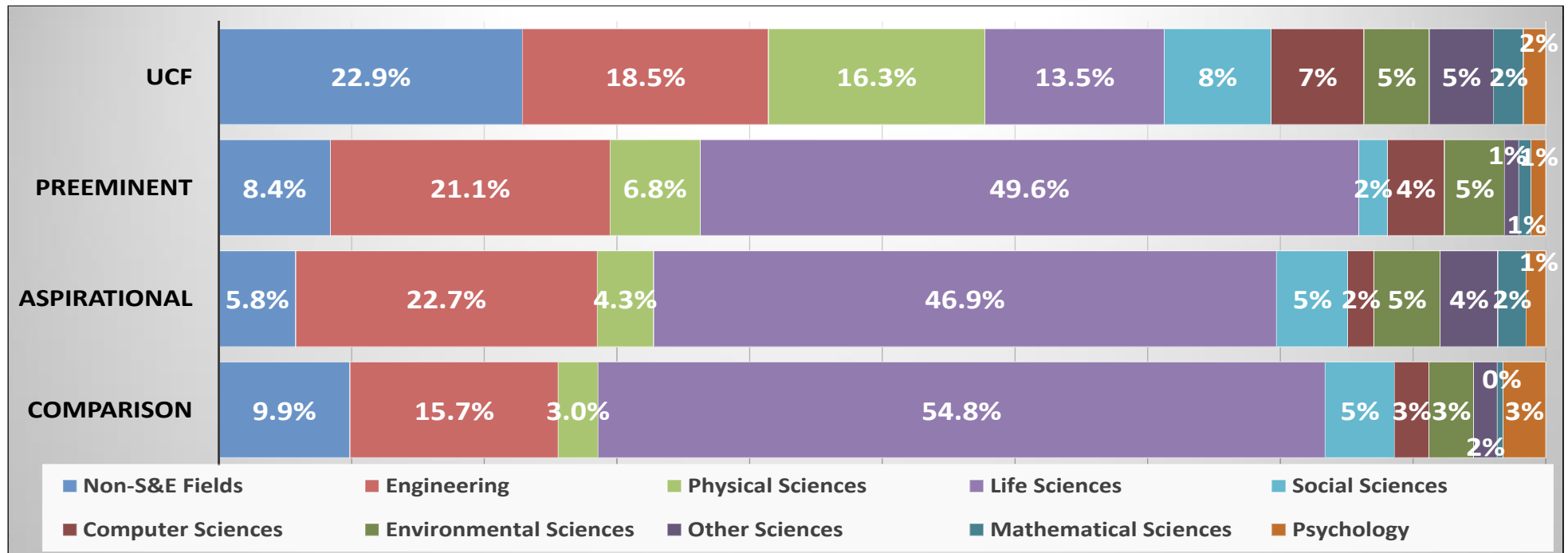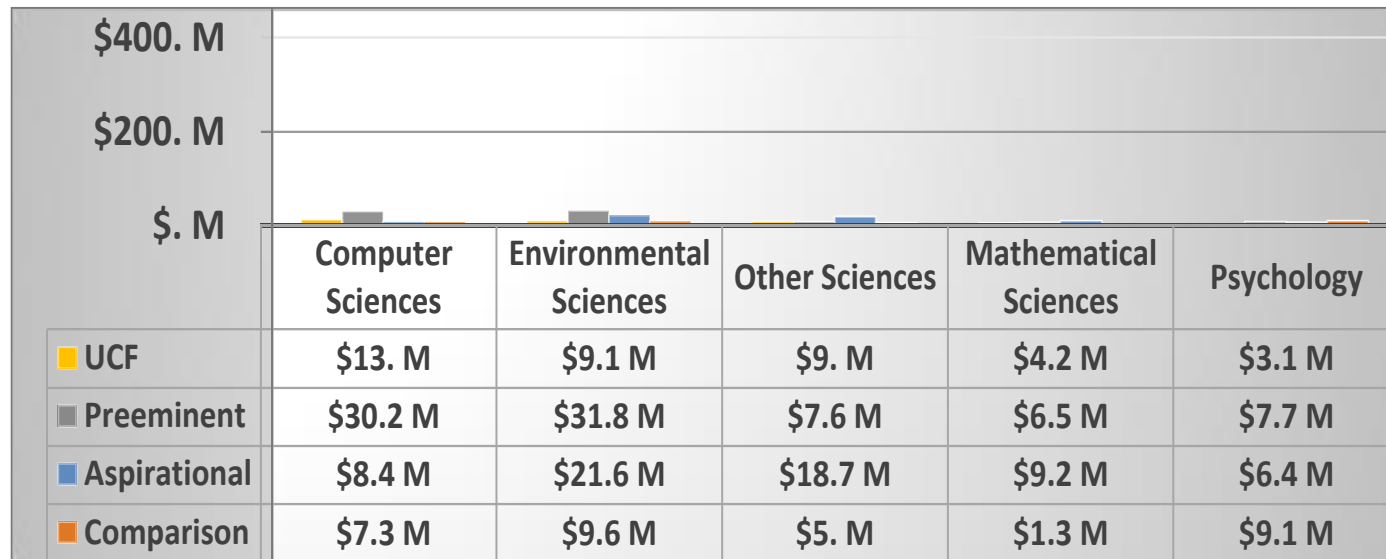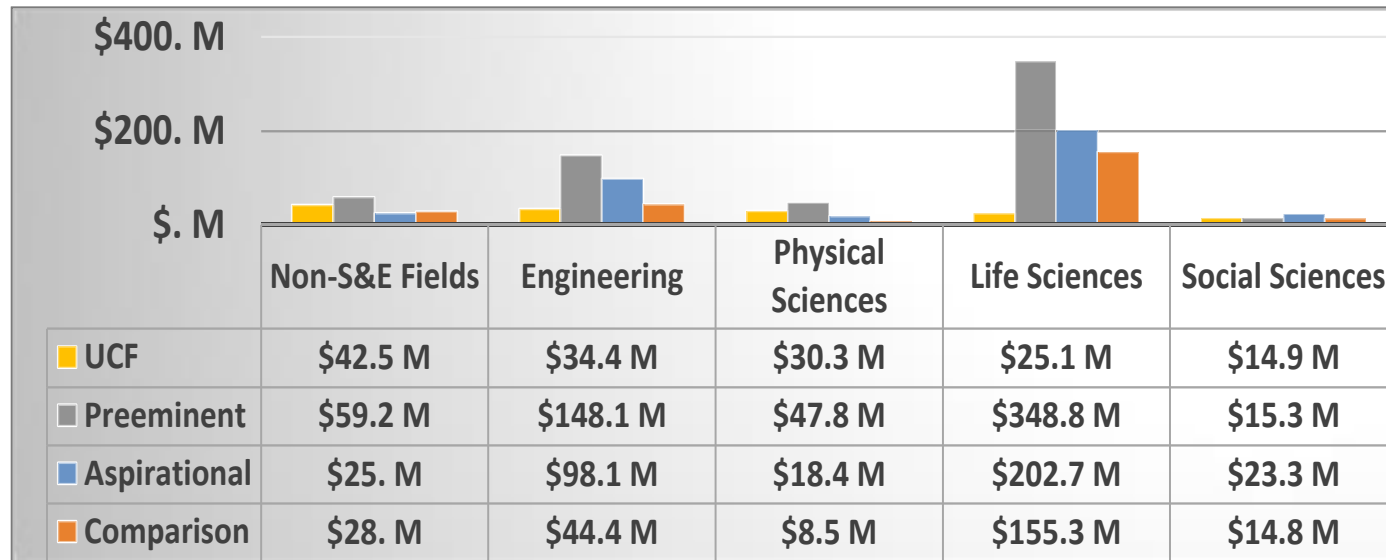|	
Computer Sciences	Computer Sciences
Environmental Sciences	Atmospheric, Earth Sciences, Oceanography, Other Environmental Sciences
Other Sciences	Other Sciences
Mathematical Sciences	Mathematical Sciences
Psychology	Psychology

Source: 2013-14 NSF Higher Education Research and Development Survey

UCF

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Distribution by Broad Disciplines

	Non-S&E Fields	Engineering	Physical Sciences	Life Sciences	Social Sciences	Computer Sciences	Environmental Sciences	Other Sciences	Mathematical Sciences	Psychology
UCF	22.9%	18.5%	16.3%	13.5%	8%	7%	5%	5%	2%	2%
PREEMINENT	8.4%	21.1%	6.8%	49.6%	2%	4%	5%	1%	1%	1%
ASPIRATIONAL	5.8%	22.7%	4.3%	46.9%	5%	2%	5%	4%	2%	1%
COMPARISON	9.9%	15.7%	3.0%	54.8%	5%	3%	3%	0%	2%	3%

Source: 2013-14 NSF Higher Education Research and Development Survey

UCF

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Total R&D Expenditures by Broad Disciplines

	Non-S&E Fields	Engineering	Physical Sciences	Life Sciences	Social Sciences
■ UCF	$42.5 M	$34.4 M	$30.3 M	$25.1 M	$14.9 M
■ Preeminent	$59.2 M	$148.1 M	$47.8 M	$348.8 M	$15.3 M
■ Aspirational	$25. M	$98.1 M	$18.4 M	$202.7 M	$23.3 M
■ Comparison	$28. M	$44.4 M	$8.5 M	$155.3 M	$14.8 M

	Computer Sciences	Environmental Sciences	Other Sciences	Mathematical Sciences	Psychology
■ UCF	$13. M	$9.1 M	$9. M	$4.2 M	$3.1 M
■ Preeminent	$30.2 M	$31.8 M	$7.6 M	$6.5 M	$7.7 M
■ Aspirational	$8.4 M	$21.6 M	$18.7 M	$9.2 M	$6.4 M
■ Comparison	$7.3 M	$9.6 M	$5. M	$1.3 M	$9.1 M

Source: 2013-14 NSF Higher Education Research and Development Survey

UCF

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UCF Subdisciplines - Highest and Lowest
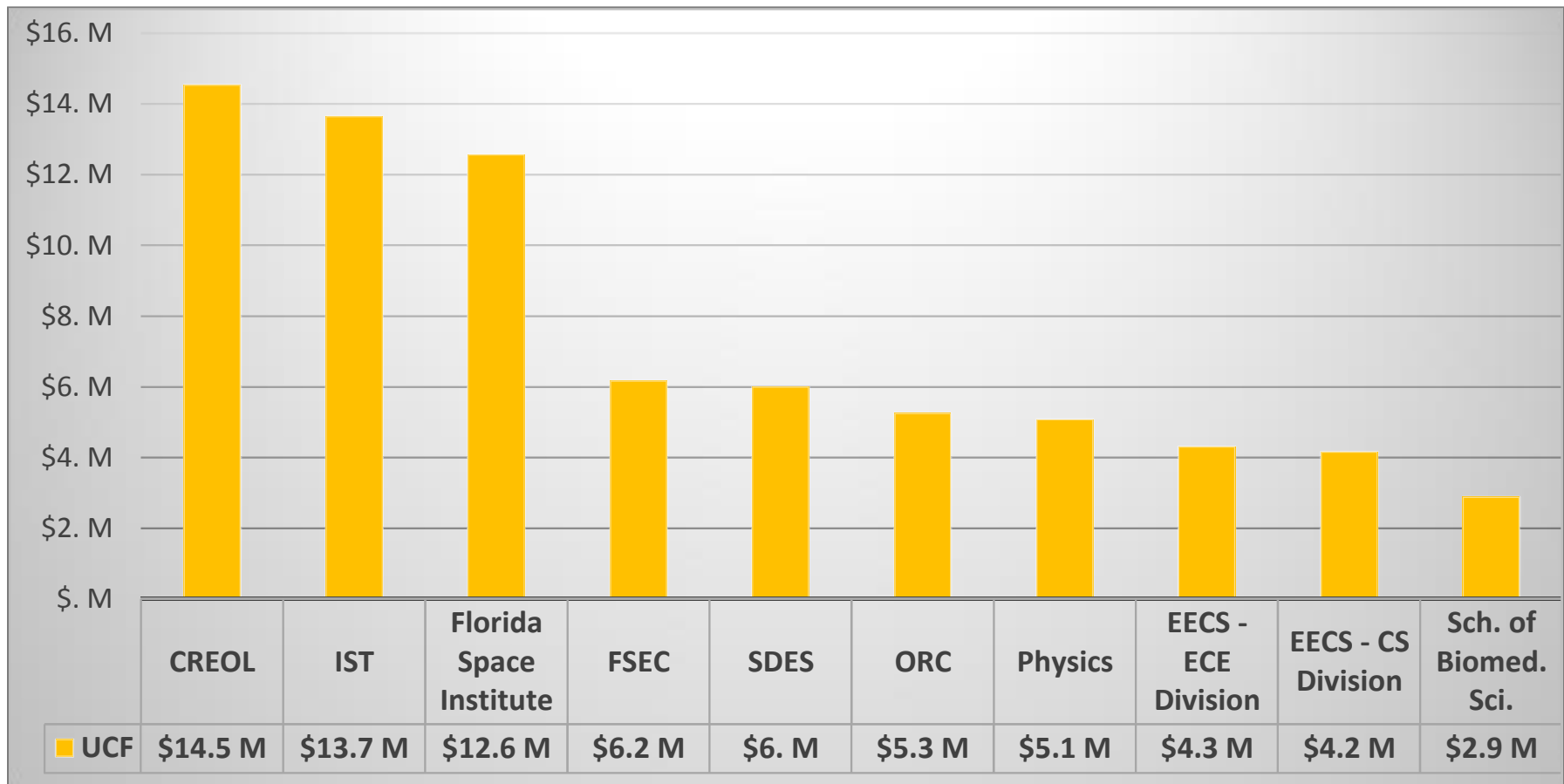
Average R&D Expenditures in Top Three Programs at UCF

	Physics	Business and Management	Computer Sciences
UCF	$22.5 M	$18.8 M	$13. M
Preeminent	$25.6 M	$4.7 M	$30.2 M
Aspirational	$6.3 M	$2.3 M	$8.4 M
Comparison	$4.9 M	$3.6 M	$7.3 M
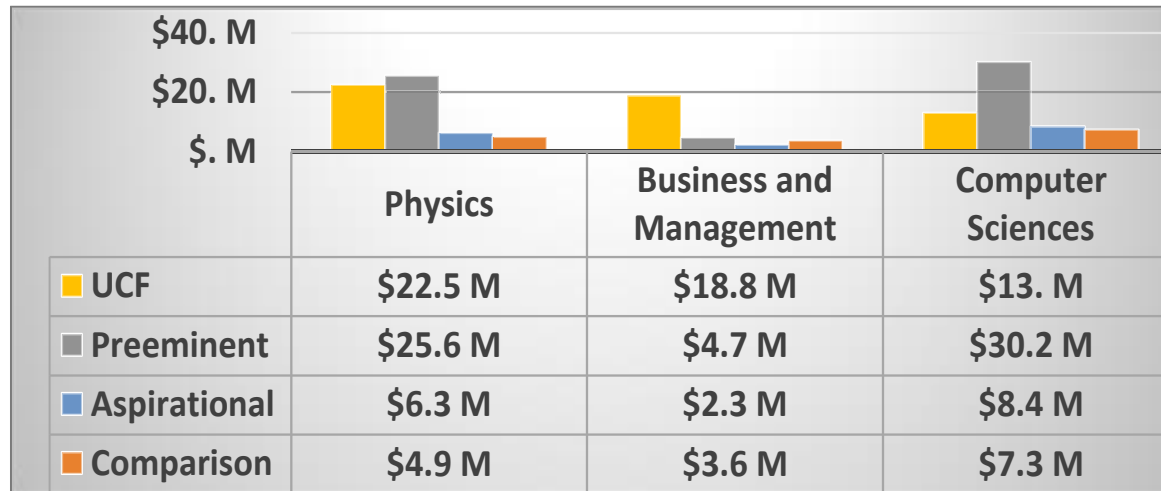
Average R&D Expenditures in Bottom Three Programs at UCF

	Bioengineering and Biomed. Eng.	Other Environmental Sc.	Law
UCF	$1. M	$.3 M	$.2 M
Preeminent	$8.6 M	$.6 M	$.4 M
Aspirational	$10.9 M	$4.1 M	$.5 M
Comparison	$2.5 M	$. M	$.2 M

Source: 2013-14 NSF Higher Education Research and Development Survey

UCF

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UCF Units with Highest R&D Expenditures

UCF	CREOL	IST	Florida Space Institute	FSEC	SDES	ORC	Physics	EECS - ECE Division	EECS - CS Division	Sch. of Biomed. Sci.
UCF	$14.5 M	$13.7 M	$12.6 M	$6.2 M	$6. M	$5.3 M	$5.1 M	$4.3 M	$4.2 M	$2.9 M

Source: 2014-15 Program Review Data

UCF

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Advancing UCF Research

- What are the strategies for increasing UCF's research activities?

- 2020 research challenge

- Core strategies to enhance research

- External review

UCF   17

UCF Research Awards – Challenge 2020

Unit	Awards
College of Engineering and Computer Science	$24,433,757
College of Optics and Photonics	$14,708,936
College of Sciences	$13,740,768
Burnett School of Biomedical Sciences	$6,282,913
College of Education and Human Performance	$5,999,503
College of Health and Public Affairs	$3,928,377
College of Nursing	$1,639,248
College of Medicine without Burnett	$599,082
College of Arts and Humanities	$561,343
College of Business Administration	$489,301
Rosen College of Hospitality Management	$291,028
Institute for Simulation and Training	$15,625,060
Other	$13,539,201
Florida Space Institute	$13,149,186
Office of Research and Commercialization	$5,472,157
Florida Solar Energy Center	$5,172,199
NanoScience Technology Center	$4,710,603
Advanced Materials Processing and Analysis Center	$1,579,269
Center for Research in Computer Vision	$1,486,763

Awards

$60.7

$72.7

■ Institutes and Centers ■ Colleges
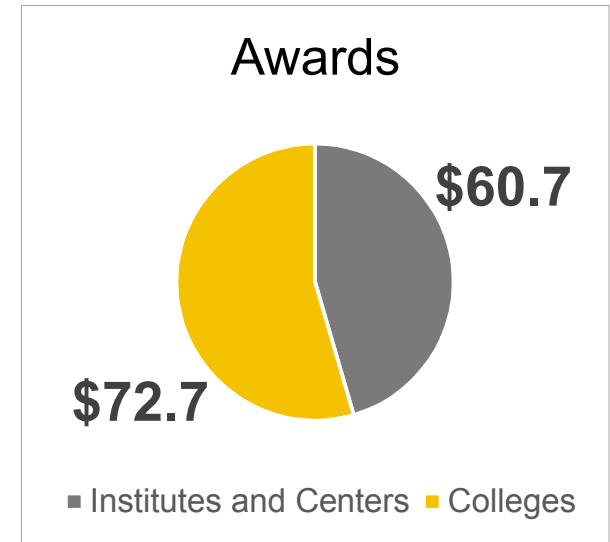
Challenge 2020:
$250 million,
an 87% increase

UCF

18

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Core Strategies

- Invest in quality talent
- Invest in critical infrastructure

UCF

19
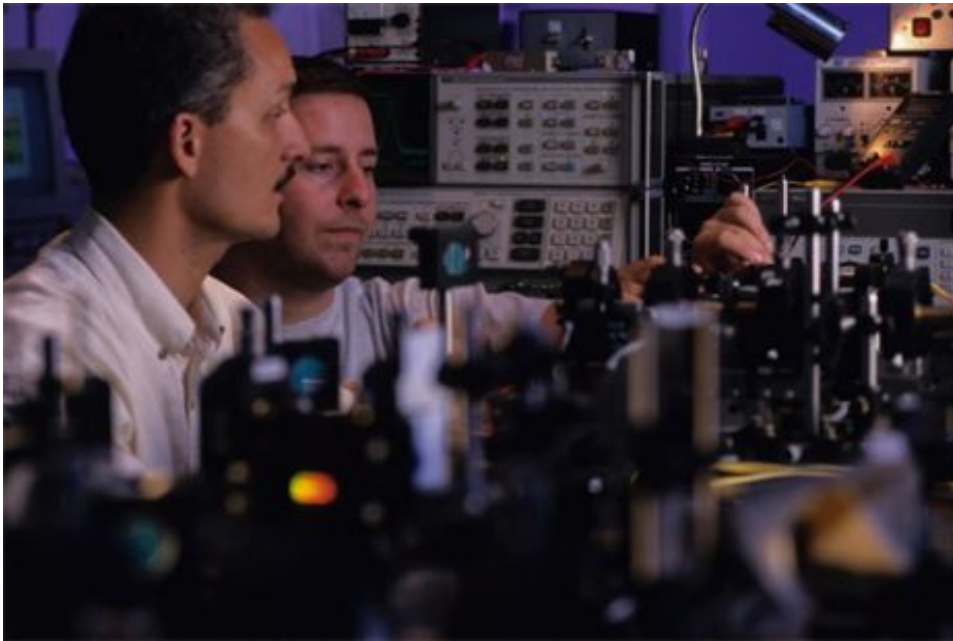
Investing in Talent

- ## Using performance funding to grow our faculty

  - Goal of 200 new faculty positions to increase tenured and tenure-track faculty by 25 percent

  - Six inaugural teaching and research clusters focused on developing new academic programs and new research programs

- ## 2015-16 new faculty members' research awards total more than $5.1 million

UCF

20

Investing in Infrastructure

- ## Space is our greatest barrier and top priority for growing research programs

  - 67.1% deficit (618,214 sq ft) in research labs
  - 26.4% deficit (259,853 sq ft) in office space

  (Source: Fixed Capital Outlay Space Needs, Florida Board of Governors)

- ## 15 new academic buildings constructed in last 10 years, adding more than 1 million square feet

  - Physical Sciences, Biomedical, College of Medicine, AMPAC, Simulation, Engineering
  - $343 million in project costs

UCF

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Investing in Infrastructure

- Five new academic buildings expected to be acquired or constructed in next three years, adding more than 477,000 square feet
  - Global UCF
  - Interdisciplinary Research and Incubator Facility
  - Trevor Colbourn Hall
  - Partnership IV
  - UCF Downtown Academic Building
- $160.2 million in total project costs

UCF

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External Review - Research and Graduate Studies

- ## External consultant team
  - Dr. Sethuraman "Panch" Panchanathan, *Executive VP for ASU Knowledge Enterprise*
  - Dr. Marion K. Underwood, *Dean of Graduate Studies and Associate Provost at UT Dallas*
  - Dr. Caroline Whitacre, *VP for Research at The Ohio State University*

- ## Internal representative
  - Dr. David Hagan, *Associate Dean of Academic Programs, College of Optics and Photonics*

UCF 23

External Review Recommendations

- Strategically hire mid-career and senior faculty with funded, programmatic research and incentivize faculty actively engaged in securing funding

- Provide business development for expanding UCF's research portfolio and success, including expanding Washington, D.C., presence and identifying new funding opportunities

- Diversify research portfolio and increase corporate engagement. Focus on key areas of engagement so UCF can become a full-fledged partner with a select number of key industry partners

- Invest in infrastructure and graduate education and post-doctoral training

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VP for Research and Dean of Graduate Studies

- ## National search for a combined leadership position

  - Provide overall vision and advance UCF's impact of discovery by growing graduate education and research in both scale and quality

  - Support interdisciplinary academic programs, institutes, initiatives, and corporate engagement programs

  - Champion post-doctoral programs, sponsored research, partnerships, IP management, and entrepreneurship

UCF

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Discussion

26

Central Florida Higher Education Competitors

BOARD OF TRUSTEES RETREAT

MAY 13, 2016

1

"

A horse never runs so fast as when he has other horses to catch up and outpace.

OVID, *Roman Poet*

"

2

Our Market

3

63,002
Fall 2015 Enrollment

212 Degrees Offered
93 Bachelor's, 84 Master's
31 Doctoral, 3 Specialist, 1 Professional

16,585
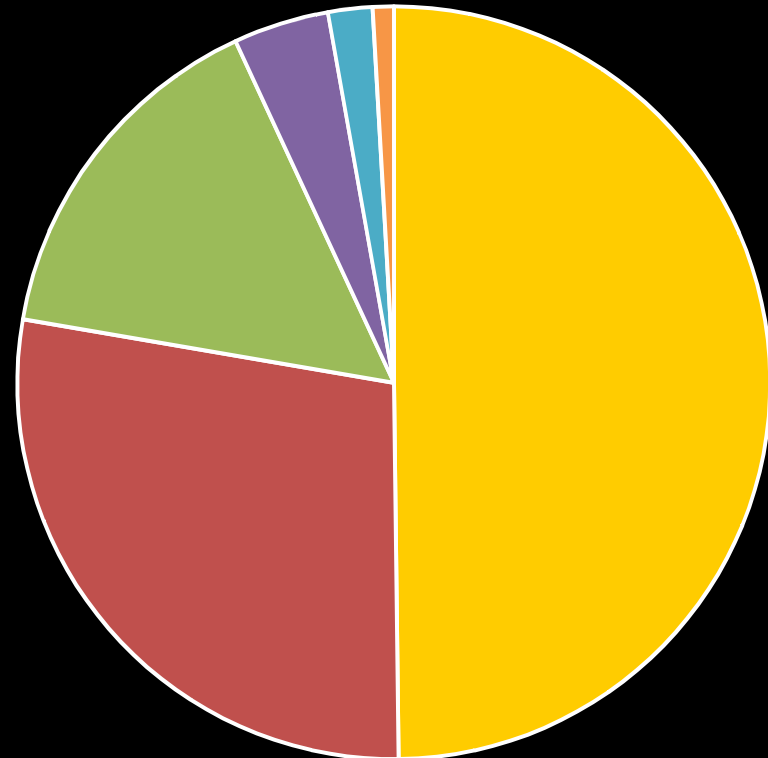## Degrees Awarded in 2014

4

Household Income Distribution
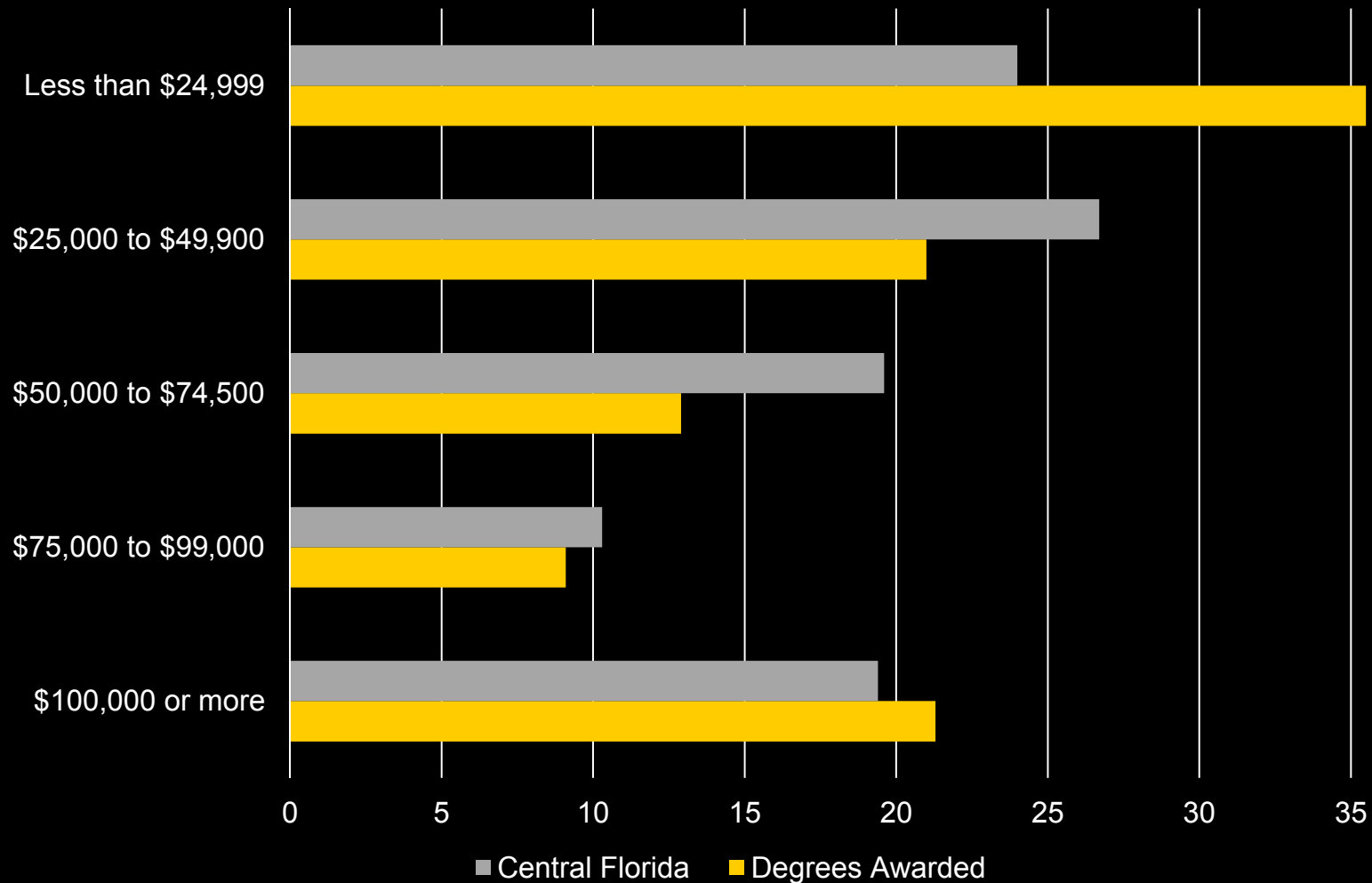
Provides percentages of Central Florida household incomes, compared with 2014-15 undergraduates graduating.
Sources: 2014 American Community Survey; 2014-15 FAFSA, 42.8% unknown for undergraduates graduating

5

Demographics

UCF Student Population
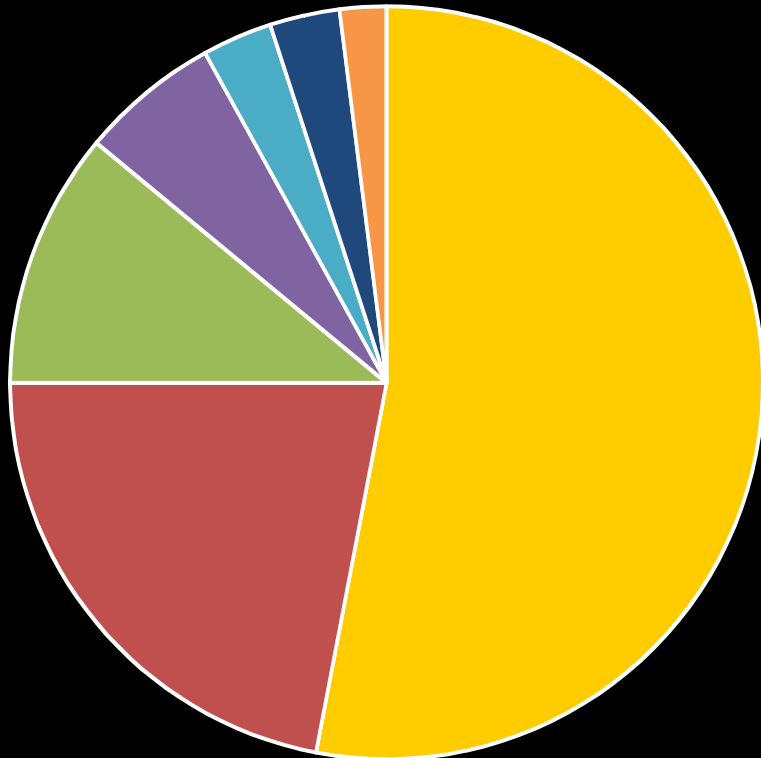
Orlando MSA Population

- ☐ White
- ☐ Hispanic and Latino
- ☐ African-American
- ☐ Asian
- ☐ Multi-racial
- ☐ Other or Not Specified
- ☐ Nonresident Alien *(UCF only)*

Sources: UCF IKM, 2015; Orlando Economic Development Commission, ESRI 2015 - Estimates

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Orlando Market
Orlando-Kissimmee-Sanford MSA

2.3 Million
Population

2.1%
Predicted Annual
Growth Through 2019

239,106
Population, Age 18-24

Sources: Orlando Economic Development Commission; UCF Institute for Economic Competitiveness, 2016

7

Postsecondary Education Student Pipeline

165,000 Florida high school students graduating annually through 2019-20

63% go on to some postsecondary education

92% of UCF's students are Florida residents

8

Postsecondary Education Demand

More than 60% of Florida jobs will require postsecondary education or training by 2020

3.8 million more high-quality postsecondary credentials needed by 2025

26.5% increase in postsecondary degrees awarded in Florida from 2008-09 to 2012-13

Source: Florida College Access Summit, 2014

9

"

Our goal is to be a large-scale institution that can meet the needs and the demands for higher education.

JOHN C. HITT

"

10

Our Value Proposition

11

"[UCF is] in the vanguard of an insurgency that aims to demolish the popular belief that exclusivity is a virtue in higher education."

The Princeton Review

BEST

"…a seamless pipeline of social mobility."

The Washi

Kiplinger
Timely, Trusted Personal Finance Advice and Business Forecasts

POLITICO

Forbes

n Gap

Higher Education Providers

13

40+ postsecondary institutions within a 50-mile radius of UCF's main campus

20+
For-profit institutions

14
Private institutions

8
Public institutions

$19,500
Average Annual Cost

5,000
Average Undergraduate Enrollment

Source: U.S. Department of Education College Scorecard, 2016

14

Comparison With For-Profit Institutions

	UCF	University of Phoenix (Orlando)	Keiser University	Strayer University	Kaplan University	Everest University (Orlando)
Total Enrollment	63,002	3,707	19,110	2,769	57,943	23,169
Top Undergraduate	Psychology; Registered Nursing	Business Administration and Management; Criminal Justice and Law Enforcement Administration	Business Administration and Management; Criminal Justice and Safety Studies	Business and Commerce; Criminal Justice and Law Enforcement Administration	Registered Nursing; Business Administration and Management	Business Administration and Management; Securities Services Administration
Top Graduate	Social Work; Business and Commerce	Business Administration and Management; Nursing Education	Business Administration and Management; Physician Assistant	Business Administration and Management; Organizational Leadership	Business Administration and Management; Psychology	Business Administration and Management
Tuition and Fees	$6,368	$10,540	$16,963	$12,975	$13,956	$13,752

Sources: UCF IKM, 2015; total Fall 2014 enrollment for Keiser and Strayer represent Florida numbers, and Phoenix and Everest represent Orlando region, according to Integrated Postsecondary Education Data System (IPEDS); Kaplan data based on its Davenport, IA headquarters, according to IPEDS; top programs defined by degrees conferred, 2014-15; full-time undergraduate tuition and fees, 2014-15, according to IPEDS.

15

Comparison With For-Profit Institutions

	UCF	University of Phoenix (Orlando)	Keiser University	Strayer University	Kaplan University	Everest University (Orlando)
Percent In-State	92%	90%	78%	98%	1%	**17%**
Percent Age 24 and under	**79%**	Not Available	35%	14%	18%	26%
Percent Minority	43%	52%	56%	44%	43%	59%
Retention Rate	**89%**	50%	74%	43%	40%	36%
Graduation Rate	**70%**	21%	56%	44%	16%	31%

Sources: UCF IKM, 2015; for non-UCF institutions, comparisons based upon Fall 2014 undergraduate admission data from IPEDS and data from U.S. Department of Education College Scorecard, 2016. For-profit institution data for Keiser and Strayer for Florida students; Kaplan data based on its Davenport, IA headquarters.

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Comparison With For-Profit Institutions

	UCF	University of Phoenix (Orlando)	Keiser University	Strayer University	Kaplan University	Everest University (Orlando)
Students Receiving Federal Loans	**45%**	65%	66%	78%	65%	77%
Students Paying Down Debt	**85%**	41%	47%	44%	36%	22%
Average Debt	**$18,500**	$35,500	$27,500	$39,500	$30,500	$27,500
Salary After Graduation	$43,000	$53,400	$29,600	$51,700	$34,400	$25,300

Source: U.S. Department of Education College Scorecard, 2016. For-profit institution data for Keiser and Strayer for Florida students; Kaplan data based on its Davenport, IA headquarters.

17

Ana G. Méndez University System

2,638 enrolled at Florida campuses in Orlando, Tampa, and Miramar

Offers **bilingual accelerated program**; registered as a discipline-based dual language immersion model

Follows the **50/50 model** of bilingual instruction.
50% of instruction is offered in English and 50% in Spanish

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Webster University

Currently enrolls about **350 students** in Orlando

Combining its **Orlando locations downtown**, across from Amway Center

Offers **graduate programs** in business, human resources, health administration, counseling, and cybersecurity

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Comparison With Private Institutions

	UCF	Rollins College	Stetson University	Full Sail University	Nova Southeastern University
Total Enrollment	63,002	3,207	4,137	19,285	24,168
Top Undergraduate	Psychology; Registered Nursing	International Business, Trade, and Commerce; Communication	Psychology; Business Administration and Management	Cinematography and Film and Video Production; Animation, Interactive Technology, Video Graphics, and Special Effects	Registered Nursing; Business Administration*
Top Graduate	Social Work; Business and Commerce	Business Administration and Management; Mental Health Counselor	Business Administration and Management; Educational Leadership	Arts, Entertainment, and Media Management; E-Commerce and Electronic Commerce	Business Administration and Management; Teacher Education (Multiple Levels)
Tuition and Fees	$6,368	$43,080	$40,040	$22,796	$26,700

Based upon most degrees conferred in 2014-15 for degree programs offered in Orlando

Sources: UCF IKM, 2015; non-UCF enrollment based upon Fall 2014 numbers, according to IPEDS. Top programs defined by degrees conferred in 2014-15, according to IPEDS. Full-time undergraduate tuition and fees in 2014-15, according to IPEDS.

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Comparison With Private Institutions

	UCF	Rollins College	Stetson University	Full Sail University	Nova Southeastern University
Percent In-state	92%	45%	64%	**19%**	64%
Percent Age 24 and under	79%	84%	96%	**51%**	56%
Percent Minority	43%	35%	34%	45%	65%
Retention Rate	89%	83%	78%	**50%**	71%
Graduation Rate	70%	69%	64%	79%	41%

Sources: UCF IKM, 2015; for non-UCF institutions, comparisons based upon Fall 2014 undergraduate admission data from IPEDS and data from U.S. Department of Education College Scorecard, 2016.

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Comparison With Private Institutions

	UCF	Rollins College	Stetson University	Full Sail University	Nova Southeastern University
Students Receiving Federal Loans	45%	52%	66%	80%	61%
Students Paying Down Debt	85%	83%	86%	**57%**	70%
Average Debt	**$18,500**	$27,000	$27,000	$30,843	$26,500
Salary After Graduation	$43,000	$42,200	$42,600	$34,100	$46,500

Source: U.S. Department of Education College Scorecard, 2016

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Florida State Colleges

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4-Year Degrees at DirectConnect Partners

	UCF	Valencia College	Eastern Florida State College	Lake-Sumter State College	Seminole State College	Daytona State College	College of Central Florida
Total Enrollment	63,002	34,818	12,736	3,510	16,567	12,993	7,931
Bachelor's Degrees	93	4	3	1	6	5	3
Overlapping Degrees	9	0	0	0	3	3	3
DirectConnect Students*	6,337	3,828	764	228	1,027	387	103

* 2015-2016 Incoming students

Sources: UCF IKM, 2015; Integrated Postsecondary Education Data System, Fall 2014

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Online Education

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National Trends in Online Learning

More than **one in four students (28%)** now take at least one distance education course (a total of 5.8 million, a year-to-year increase of 217,275).

Public institutions command the largest portion of distance education students, with **72.7% of all undergraduate** and **38.7% of all graduate online learners.**

Source: 2015 Online Report Card: Tracking Online Education in the United States

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Public Universities Are Serving Their States

Locations of Students Enrolled Exclusively in Distance Education Courses

Legend: ■ Same state   ■ Different state   ■ International, U.S. unknown and Unknown

Source: 2015 Online Report Card: Tracking Online Education in the United States

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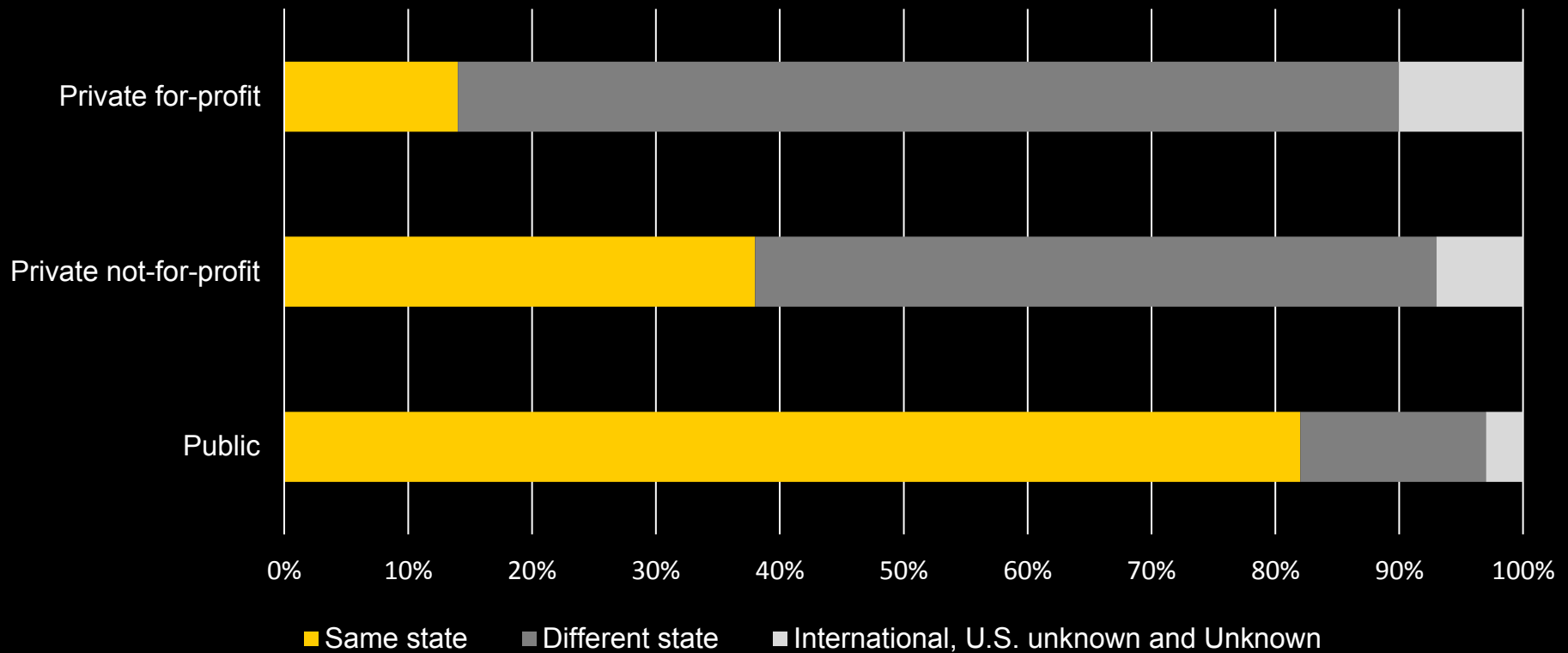
Online Education Comparison

	UCF	Arizona State University	University of Florida	University of Miami	Florida International University
Undergraduate Programs	18	60	15	1	20
Graduate Programs	25	45	34	15	19
Undergraduate Credit Hour Costs	$179 in-state $327 out-of-state	$490 to $553 per credit hour*	$129 in-state $552 out-of-state	$675 per credit hour*	$216 in-state $333 out-of-state
Graduate Credit Hour Costs	$327 to $1300 per credit hour*	$492 to $852 per credit hour*	$528 in-state $1253 out-of-state	$1295 to $1850 per credit hour*	$500 in-state $1500 out-of-state

No difference in tuition for out-of-state students

Sources: Educational institutions' websites advertising online degree programs

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Orlando *Is* An Asset

The **fastest-growing** of the country's 30 largest regions - U.S. Census Bureau, 2016

Ranked **No. 4** among best U.S. cities for future job growth - *Forbes*, 2015

"Best Cities for Innovation" - *Fast Company*

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Transfer to UCF, declare a major, raise a hand in class, turn a passion into a career plan, ace the final exam, walk across the stage, make the parents proud, polish the résumé, nail the interview, pick up the check, open a 401k, buy a new car, score the corner office, start a bucket list, sign a mortgage, dream bigger, take the leap and **make it happen.**

Choose the Rosen College of Hospitality Management, discover a passion for making people smile, partner with internationally-renowned faculty, score a life-changing internship, impress the world's travelers, collaborate with industry leaders, orchestrate a seven-course meal, pull off a party for a thousand, walk across the stage, send résumés to six continents, score the dream job, dive into a new culture and **run your own show.**

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From:	Gina Seabrook
Sent:	Thursday, May 12, 2016 8:56 AM
To:	Lee Kernek
Subject:	RE: Research BOT PPT - Questions from Dale
Attachments:	Project last 15 years.xlsx

Here are the projects. Gina

From: Lee Kernek
Sent: Thursday, May 12, 2016 8:12 AM
To: Gina Seabrook <Gina.Seabrook@ucf.edu>
Subject: Re: Research BOT PPT - Questions from Dale

To what projects did UCF contribute in the past 15 years?

On May 11, 2016, at 6:39 PM, Gina Seabrook <Gina.Seabrook@ucf.edu> wrote:

> Christine
> Here is the information you requested broken down by funding source.
>
> Not sure if the $16,614,853 was included in the original numbers submitted, however I included in the 5 year projects.

From: Lee Kernek
Sent: Wednesday, May 11, 2016 12:56 PM
To: Christine Dellert <Christine.Dellert@ucf.edu>; Gina Seabrook <Gina.Seabrook@ucf.edu>
Cc: Paige Borden <Paige.Borden@ucf.edu>
Subject: RE: Research BOT PPT - Questions from Dale

Gina is splitting each of the two totals by dollar amount (e.g., $x PECO; $y Private Donations; etc.), not by building, and will send that to you shortly.

From: Christine Dellert
Sent: Wednesday, May 11, 2016 12:08 PM
To: Lee Kernek <Lee.Kernek@ucf.edu>; Gina Seabrook <Gina.Seabrook@ucf.edu>
Cc: Paige Borden <Paige.Borden@ucf.edu>
Subject: FW: Research BOT PPT - Questions from Dale
Importance: High

Lee, Gina:

Please see the highlighted questions below. These relate to the constructed or acquired academic space that I asked about last week. We'd like to be able to detail the funding sources.

If it's possible to have these answers by 10 a.m. Thursday, that would be very much appreciated!

Thank you,
Christine

Christine Dellert
Assistant Vice President for Strategic Communications & Marketing
University of Central Florida
4000 Central Florida Boulevard / Millican Hall, Room 338 / Orlando, FL 32816
Office: **407.823.1898** / Cell: 407.718.0199
christine.dellert@ucf.edu

<image001.png>

Please note: Florida has a very broad open records law (F. S. 119). E-mails may be subject to public disclosure.

From: Paige Borden <Paige.Borden@ucf.edu>
Date: Wednesday, May 11, 2016 at 11:31 AM
To: Meghal Parikh <Meghal.Parikh@ucf.edu>, Christine Dellert <Christine.Dellert@ucf.edu>
Cc: Andre Watts <Andre.Watts@ucf.edu>, Linda Sullivan <Linda.Sullivan@ucf.edu>
Subject: Research BOT PPT - Questions from Dale

Morning,

I've attached the presentation to support the questions below.

Meghal: Slide 5 – What is USF's R&D with medical removed? What is the R&D per tenure/tenure track faculty with med removed.

Meghal: Slide 13 – What is UCF's purple Life Sciences was 40%? I think he mean's if all else was constant, what would the $ increase be for Life Sciences to move from 13.5% to 40%. Also, do we have any information that breaks down the expenses associated with the dollars? For example, 40% capital equipment, 40% salary, 10% travel, etc....

<mark>Christine: Slide 21 – What were the funding sources for the $343 million?</mark>

<mark>Christine: Slide 22 – What are the funding sources for the $160.2 million?</mark>

Thanks, Paige

Dr. M. Paige Borden
Associate Provost, Academic Program Quality (APQ) and
Associate Vice President, Institutional Knowledge Management (IKM)
University of Central Florida
4365 Andromeda Loop, N. Orlando, FL 32816-0065
Millican Hall 338C
www.afia.ucf.edu| *www.ikm.ucf.edu* | *paige.borden@ucf.edu*
W: 407-823-2698

<Project last 15 years.pdf>

PECO	UCF-INTERNAL FUNDING	PRIVATE DONOR	Courtelis	BOND	Total	Bldg.
Academic 15 Years						
	$ 943,029				$ 943,029	AMPAC
$ 52,156,165					$ 52,156,165	PHYS Sci
	$ 22,141,809	$ 43,338,826			$ 65,480,635	COM
$ 21,900,000		$ 10,058,535	$ 7,529,930	$ 56,068,330	$ 95,556,795	BIOMED
$ 22,787,040	$ 5,000	$ 1,483,383	$ 1,483,383		$ 25,758,807	Engrg
$ 23,084,659					$ 23,084,659	PIII
$ 23,408,601					$ 23,408,601	Classroom Building II
	$ 1,926,882				$ 1,926,882	MAE/
	$ 1,940,127	$ 2,794,085	$ 500,000		$ 5,234,212	Morgridge Int'l Reading Center
	$ 6,169,923				$ 6,169,923	Bennett Bldg 3 & 4
$ 25,039,820					$ 25,039,820	Performing Arts Center
$ 2,045,682					$ 2,045,682	Hazardous Materials Building
$ 16,829,490					$ 16,829,490	Psychology
$ 187,251,457	$ 33,126,770	$ 57,674,829	$ 9,513,313	$ 56,068,330	**$ 343,634,700**	
PECO	UCF-INTERNAL FUNDING	PRIVATE DONOR	Courtelis	BOND	Total	
Next 5 years						
$ 20,000,000	$ 20,000,000	$ 20,000,000			$ 60,000,000	DAB
$ 67,000	$ 46,937,853				$ 47,004,853	IRIF
$ 42,000,000					$ 42,000,000	PIV
	$ 23,000,000				$ 23,000,000	Trevor
	$ 17,101,031				$ 17,101,031	Global
$ 62,067,000	$ 107,038,884	$ 20,000,000	$ -	$ -	**$ 189,105,884**	

This include the $16,614,853 for Phase IA of the IRIF Building - Did not know if it was included at the time.

From:	Christina Tant <Christy.Tant@ucf.edu>
Sent:	Monday, June 27, 2016 11:34 AM
To:	Lee Kernek; Bill Martin; Gina Seabrook; Christy Collier; Christopher Parkinson; John Pittman; Curtis Sawyer
Cc:	Joel Hartman; Tracy Clark
Subject:	Capital Projects List - Response due July 3
Attachments:	Capital Projects_062716.xlsx

All – I have been asked to track estimates and funding sources for capital projects. Your assistance in reviewing the attached draft report is needed. While this list is intended to be comprehensive, it is not intended to be a wish list. It includes projects that have been approved to start, but should also include projects that are urgent or very high on the university's priority list so imminent funding needs are clearly understood.

The attached schedule contains three vertical sections as described below:
- **Estimated Cost** – This section is intended to itemize total project cost in four separate columns including core project cost, lab buildout, furniture & equipment, and moving costs. Lab buildout, furniture and equipment, and moving costs are often a source of confusion because they are not consistently included in the project estimate. Lab buildout and furniture and equipment should include both basic and estimated specialized costs (i.e. wet labs). It's important for everyone who uses this report to understand the full anticipated cost of each project and their funding source(s). We know these are estimates. The schedule will be updated as estimates change so that any funding needs are understood clearly and in a timely manner.
- **Secured Funding Sources** – This is to track where the funding is coming from and is self-explanatory. The schedule needs to identify where there is a "potential" for donations or state appropriations, but amounts will only be added in that column when funds have been secured.
- **Funding Needed** – This is a formula that will automatically update as cost estimates and funding sources are entered/ updated.

Lee/ Bill/ Gina/ Christy/ Chris/ John/Curt – Please review the Estimated Cost and Secured Funding sections of the attached document. If amounts need to be updated, please provide the new amount with brief explanation for what caused the change. Question marks indicate that an amount is needed. Provide feedback on the rest of the schedule with the following questions in mind:
1. Is the project substantially complete? If so, please indicate in column B. Completed projects will eventually be moved to another tab to make this list shorter and easier to manage.
2. Does the core project cost estimate include lab buildout, furniture and equipment, or moving costs that should move to the other columns? If not, enter anticipated amounts in columns C - E. If one or more of these columns is clearly not applicable to the project, then it should be identified as "N/A".
3. Do the cost estimates reflect the latest known information?
4. Are the secured funding sources and amounts consistent with your knowledge?
5. Have all opportunities for donations or state appropriations as a potential funding source been indicated?
6. What else is needed to improve the clarity or usefulness of this report?

Please provide your responses no later than this Friday, July 3rd.

Once all of the edits are made, then I will redistribute the final report to you all. This information will also be shared with leadership in Administration and Finance, the Provost Office, and the Office of Budget, Planning and Administration and the University Budget Committee. I plan to send this report to you quarterly for periodic updates as it will require our collective effort to maintain.

If additional time is needed or you would like to arrange a call or meeting to review this schedule in person, please let me know as soon as possible.

Thank you,

Christy Tant, CPA
Director University Budgets, Office of Budget, Planning, and Administration

University of Central Florida
Finance and Accounting
12424 Research Pkwy, Suite 300
Orlando, FL 32826-3249
christy.tant@ucf.edu
Phone 407.882.1029
Fax 407.882.1102

Capital Projects
Current Funding Plan for Approved Projects
Updated 6/27/16 - DRAFT

		Estimated Cost				Secured Funding Sources					Funding Needed
						External	Internal				
	Completed ?	Core Project	Lab Buildout	Furniture and Equipment	Moving Costs	Donations/ DSO/ State Approp.	Division/ Unit (incl. Bonds)	Investment Earnings	Auxiliary	E&G	
Academic/ Research Space											
Engineering Building I Renovation		$ 16,000,000	?	?	N/A	Potential	$ -	$ -	$ -	$ -	$ 16,000,000
Mathematical Sciences Renovation		11,000,000	?	?	N/A	Potential	-	-	-	-	11,000,000
ARA Small Research Building		13,000,000	?	?	?	?	-	-	-	-	13,000,000
Osceola ICAMR - Phase II		?	?	?	?	-	-	-	-	-	?
Archie Carr Turtle Research		5,000,000	?	?	N/A	Potential	-	-	-	-	5,000,000
Millican Hall Renovation		?	N/A	N/A	N/A	-	-	-	-	-	?
Swing Space/ Modulars		?	?	?	?	-	-	-	-	-	?
Lab Compliance		?	N/A	N/A	N/A	-	-	-	-	-	?
Trevor Colburn Building		23,000,000	?	?	?	-	-	-	-	23,000,000	-
Colburn Hall Renovation		15,000,000	?	?	?	-	-	-	-	15,000,000	-
Global UCF Building	Yes	17,200,000	N/A	?	?	-	600,000	10,000,000	4,800,000	1,800,000	-
Interdisciplinary Research Bldg - Phase I		27,000,000	?	3,000,000	?	-	3,000,000	24,000,000	-	3,000,000	-
Interdisciplinary Research Bldg - Phase II		17,000,000	?	?	?	-	-	17,000,000	-	-	-
Creol 3rd Floor Buildout		2,000,000	?	?	N/A	-	-	-	-	2,000,000	-
Creol Expansion		6,700,000	?	?	?	-	2,700,000	-	-	4,000,000	-
TAF Research (polluted drains)		1,500,000	N/A	N/A	N/A	-	-	-	-	1,500,000	-
Lab Renovation/ Repair - BSBS		1,400,000	?	N/A	N/A	-	1,039,000	-	-	361,000	-
Lab Renovation/ Repair - CECS		1,500,000	?	N/A	N/A	-	925,000	-	-	575,000	-
UCF Downtown											
Academic Building		60,000,000	N/A	?	?	40,000,000	9,000,000	-	11,000,000	-	-
Academic Building Overrun		10,000,000	N/A	N/A	N/A	Potential	-	-	-	-	10,000,000
Tri-Gen Building		20,000,000	N/A	N/A	N/A	20,000,000	-	-	-	-	-
Garage		15,000,000	N/A	N/A	N/A	-	15,000,000	-	-	-	-
Center for Emerging Media Renovation		5,000,000	N/A	N/A	N/A	-	-	-	-	5,000,000	-
Infrastructure		4,800,000	N/A	N/A	N/A	-	-	-	-	-	4,800,000
Downtown Welcome Center		3,000,000	N/A	?	?	-	-	-	-	-	3,000,000
Fountain		200,000	N/A	N/A	N/A	-	200,000	-	-	-	-
Other Facilities											
Performing Arts Center		50,000,000	N/A	?	N/A	Potential	-	-	-	-	50,000,000
Rehearsal Hall		10,000,000	N/A	?	N/A	Potential	-	-	-	-	10,000,000
UCF Entry Gateway		6,500,000	N/A	N/A	N/A	-	-	-	-	-	6,500,000
Band Building Road & Utilities		1,500,000	N/A	N/A	N/A	-	-	-	-	-	1,500,000
Band Building Lighting		1,000,000	N/A	N/A	N/A	-	-	-	-	-	1,000,000
Building Hardening for Shelter - Classroom I		2,200,000	N/A	N/A	N/A	-	-	-	-	-	2,200,000
Building Hardening for Shelters - Future		?	N/A	N/A	N/A	-	-	-	-	-	?
Twin Rivers Golf Course		2,000,000	N/A	N/A	N/A	-	-	-	-	-	2,000,000
Building Demolitions		?	N/A	N/A	N/A	-	-	-	-	-	?
Band Building	?	2,500,000	N/A	N/A	N/A	-	2,200,000	-	-	300,000	-
US Tennis Association Complex		3,500,000	N/A	N/A	N/A	-	-	-	-	3,500,000	-
UCF Fieldhouse - Upgrades/ chilled water		6,703,652	N/A	N/A	N/A	-	6,703,652	-	-	-	-
UCF Fieldhouse - Temp HVAC		800,000	N/A	N/A	N/A	800,000	-	-	-	-	-
UCFSC Athletic Leadership Center	Yes	5,600,000	N/A	?	?	5,600,000	-	-	-	-	-

Capital Projects
Current Funding Plan for Approved Projects
Updated 6/27/16 - DRAFT

| | Estimated Cost | | | | | Secured Funding Sources | | | | | Funding Needed |
| | | | | | | External | Internal | | | | |
	Completed ?	Core Project	Lab Buildout	Furniture and Equipment	Moving Costs	Donations/ DSO/ State Approp.	Division/ Unit (incl. Bonds)	Investment Earnings	Auxiliary	E&G	
UCFSC Eastside Club	Yes	2,600,000	N/A	?	?	2,600,000		-	-	-	-
UCFSC Stadium Video and Sound		5,392,866	N/A	N/A	N/A	?	5,392,866	-	-	-	-
UCFCC Arena Video and Sound		2,050,199	N/A	N/A	N/A	2,050,199	-	-	-	-	-
UCFCC Arena Plaza		3,681,000	N/A	N/A	N/A	350,000	3,331,000	-	-	-	
Infrastructure, HVAC and Other											
OUC Buy-out for Lake Nona		15,000,000	N/A	N/A	N/A	-	-	-	-	-	15,000,000
Alafaya Pedestrian Safety Maintenance		2,000,000	N/A	N/A	N/A	-	-	-	-	-	2,000,000
Central Energy Plant (Chillers)		13,000,000	N/A	N/A	N/A	-	-	-	13,000,000	-	-
Venue HVAC Repair	?	2,800,000	N/A	N/A	N/A	-	800,000	-	1,000,000	1,000,000	-
Generator for Biology Building	?	1,000,000	N/A	N/A	N/A	-	-	-	-	1,000,000	-
Daytona HVAC Repair	?	776,250	N/A	N/A	N/A	-	-	-	-	776,250	-
Road improvements - North Orion	?	341,000	N/A	N/A	N/A	-	341,000	-	-	-	-
Grand Total		$ 416,244,967	$ -	$ 3,000,000	$ -	$ 71,400,199	$ 51,232,518	$ 51,000,000	$ 29,800,000	$ 62,812,250	$ 153,000,000

Arena Video/Sound	$	2,050,199	UCF CC Surplus Funds
Stadium Video/Sound		5,392,866	Payback source?
	$	7,443,065	
	$	5,500,000	A&F Aux cash
		1,203,652	Aux loan payback from MMR
Fieldhouse HVAC	$	6,703,652	

From:	Dale Whittaker
Sent:	Monday, May 23, 2016 6:09 AM
To:	Lee Kernek; William Merck; Joel Hartman; Christy Collier; Dan Tarcynski
Cc:	Ronnie Korosec
Subject:	RE: Trevor Colbourn/Colbourn Hall Meeting Results Summary

This is accurate to my recollection. I suggest changing the phrase "but will not have ownership" to "but will not have exclusive control of scheduling".

From: Lee Kernek
Sent: Thursday, May 19, 2016 5:55 PM
To: Dale Whittaker <Dale.Whittaker@ucf.edu>; William Merck <William.Merck@ucf.edu>; Joel Hartman <Joel.Hartman@ucf.edu>; Christy Collier <Christy.Collier@ucf.edu>; Dan Tarcynski <tarczynski@schenkelshultz.com>
Cc: Ronnie Korosec <Ronnie@ucf.edu>
Subject: Trevor Colbourn/Colbourn Hall Meeting Results Summary

I show the following from today's meeting. Please feel free to correct me if I am mistaken about any actions or to add what I may have missed. Thanks!

- The preferred option is 2B – one new building, with demolition of Colbourn Hall: resulting in 108.8 gsf built out and 26.8 gsf occupiable shell.
- Units that were removed from the program will not be re-added at this time.
- Prior programming commitments will be honored.
- Gained Light Officing will be maximized.
- The architect will work to create standardized portfolios of layouts, with choices of pods.
- **Christy Collier** will contact Brian Boyd to ascertain classroom needs and utilization data.
- All classrooms will be general purpose, with the exception of the specialty classroom. Units in Trevor Colbourn Hall will have priority in scheduling what were to be departmental classrooms, but will not have ownership.
- **Bill Merck** will discuss the revised plan with Dr. Hitt.
- **Lee Kernek** will brief Jeffrey Moore on the project – for information only.
- The design schedule will be delayed by approximately four months, resulting in a similar delay for completing the new facility; this ends up saving one year for the occupants who were to occupy the renovated facility. Completion is projected to be Summer of 2018.
- **Dale Whittaker** will communicate the new direction and rationale to decision-makers within the new occupant group and to the UFF.

ITEM: <u>FF-4</u>

University of Central Florida
Board of Trustees

SUBJECT: 2016-17 Capital Outlay Budget

DATE: May 31, 2016

PROPOSED BOARD ACTION

Approve the university's 2016-17 capital outlay budget and authorize the president to make necessary adjustments as necessary to the 2016-17 capital outlay budget.

BACKGROUND INFORMATION

Pursuant to Florida Statute 1013.61, each university's Board of Trustees must adopt an annual capital outlay budget that designates proposed expenditures by project. The attached University of Central Florida 2016-17 capital outlay budget lists the projects approved during the legislative session and by the governor. Approval is sought for the attached budget along with authorization for the president to make changes to this budget as necessary during the year.

Supporting documentation: Attachment A: 2016-17 Capital Outlay Budget

Prepared by: Lee Kernek, Associate Vice President for Administration and Finance

Submitted by: William F. Merck II, Vice President for Administration and Finance and Chief Financial Officer

2016-17 Capital Outlay Budget
Projects By Funding Source

Projects funded by Public Education Capital Outlay (PECO)	2016-17	Funded
Utilities, Infrastructure, and Capital Renewal	11,994,197	-
Interdisciplinary Research and Incubator Facility	6,042,667	-
Colbourn Hall Renovation	1,952,455	-
Engineering Building I Renovation	14,802,697	-
Math and Physics Building (Mathematical Sciences) Remodeling and Renovation	9,994,969	-
Trevor Colbourn Hall	26,175,387	-
John C. Hitt Library Renovation Phase II	3,712,800	-
UCF Downtown Campus Academic Building	20,000,000	20,000,000
Arts Complex Phase II (Performance)	5,993,328	-
Partnership IV	14,000,000	14,000,000
TOTAL	$ 114,668,500	$ 34,000,000

Projects funded by Department of Economic Opportunity	2016-17	Funded
ICAMR - International Consortium for Advanced Manufacturing Research	-	$ 9,386,569

Projects funded by State Economic Enhancement and Development Trust Fund	2016-17	Funded
ICAMR - International Consortium for Advanced Manufacturing Research	-	$ 613,431

Project funded by Recurring for Operations	2016-17	Funded
ICAMR - International Consortium for Advanced Manufacturing Research		$ 5,000,000
		$ 15,000,000

Projects funded by donations and the Courtelis Facility Matching Grant Program	Cumulative 2016-17	
	Donations	Courtelis
Laboratory Instructional Building	$ 15,372,777	-
Morgridge International Reading Center	2,297,170	-
Burnett Bio-Medical Science Center	2,528,605	-
Career Services and Experiential Learning	196,950	-
College of Optics and Photonics	69,735	-
Engineering III	2,384,463	-
Psychology Building	86,540	-
Arts Complex II Enhancement	500,000	-
Physical Sciences Building	1,162	-
Alumni Center, John and Martha Hitt Library	8,249	-
TOTAL	$ 23,445,651	-

Maintenance, repair, renovation, and remodeling projects	2016-17	
		$ 4,762,185
TOTAL		$ 4,762,185

Capital Improvement Trust Fund	2016-17	Funded
John C. Hitt Library Phase I	$ 13,688,709	$ -
TOTAL	$ 13,688,709	$ -

Projects constructed or acquired with proceeds from non-state sources, including debt	2016-17	
Rosen Storage Shed	225,000	-
Rosen Educational Facility	17,000,000	
District Energy IV Plant	13,000,000	
UCF Downtown Campus Academic Building	40,000,000	
UCF Downtown Campus Combined Heat and Power Plant	15,118,758	
Interdisciplinary Research and Incubator Facility	27,000,000	
Institute For Hospitality In Healthcare at Lake Nona	15,300,000	
UCF Downtown Campus Garage I	15,300,000	
UCF Downtown Campus Garage II	15,300,000	
USTA American Tennis at Lake Nona - Collegiate Tennis	5,100,000	
Hotel and Conference Center	76,500,000	
Special Purpose Housing and Parking Garage	25,500,000	
Special Purpose Housing II	8,160,000	
Parking Decks	17,340,000	
Graduate Housing	51,000,000	
Refinance UCF Foundation Properties	37,410,000	37,410,000
Student Housing	51,000,000	
Garage Expansion	11,000,000	

Attachment A   Page 2

2016-17 Capital Outlay Budget
Projects By Funding Source

Regional Campuses Multi-Purpose Buildings	28,560,000	
Partnership Garage	7,140,000	
Parking Deck (Athletic Complex)	5,100,000	
Baseball Stadium Expansion Phase II	2,550,000	
Baseball Clubhouse Expansion and Renovation	1,020,000	
Bright House Networks Stadium Expansion Roth Tower Phase I	11,220,000	
Tennis Center (P,C,E)	1,530,000	
Multi-Purpose Medical Research and Incubator Facility	115,121,201	
Health Sciences Campus Parking Garage I	15,300,000	
Bio-Medical Annex Renovation and Expansion	13,056,000	13,056,000
Outpatient Center	76,500,000	
Campus Entryways	4,590,000	
TOTAL	$ 722,940,959	$ 50,466,000

From:	Dale Whittaker
Sent:	Thursday, June 23, 2016 1:59 PM
To:	Jose Fernandez; Jeffrey Moore; Margaret Mlachak; Debra Winter; Rudy McDaniel; Consuelo Stebbins; Maria Santana; Trey Philpotts; Humberto Lopez; Anthony Major; John Sacher; Delia Garcia; Kenneth Hanson; Rick Falco; Delaine Priest; Kimberly Schneider; Erin Myszkowski; Martin Dupuis; Michael Aldarondo-Jeffries; Claudia Schippert; Lyman Brodie; Michael Strawser; John Weishampel; Elizabeth Dooley; Maribeth Ehasz; Alvin Wang; Abraham Pizam; Robertico Croes; Keith Koons; Christie Wolf; Michael Johnson; Charlie Piper; Sherry Andrews; Robert Cassanello; Stephanie Vie; Pavel Zemliansky; Stephen OConnell; Mark Hall; Joel Hartman; Lee Kernek; Cynthia Young; Ronnie Korosec; Christine Dellert; William Merck; Elizabeth Klonoff; Bill Martin; Christy Collier; Ronald Lupianez; Christopher Parkinson; Jade Laderwarg; Robert Snow; Neida Mora-Maus; Scott Launier
Cc:	Dania Suarez; Debra Copertino; Angie Carloss; Teresa Rodriguez; Karen Smith; Juan Lugo; Carolyn Standner; Gwen Ransom; Eileen Ryan
Subject:	Trevor Colbourn Hall

Colleagues,

Next week, our Board of Trustees will review revised plans for the new Trevor Colbourn Hall and Colbourn Hall projects. Because of rapidly rising construction costs and demands for making new – and more – space accessible sooner, the two-building solution we previously discussed is no longer our best option, nor could it be completed in our desired timeframe or within our designated budget. Instead, our plans call for designing and constructing a single new Trevor Colbourn Hall.

This new building will be the home for all current occupants of Colbourn Hall and create a campus hub for advising and student support. Among the offices that will be relocated to the new Trevor Colbourn Hall are the Student Academic Resource Center, First Year Advising and Exploration, Sophomore and Second Year Advising, Pre-Health and Pre-Law advising, Undergraduate Research, Graduate Student Center, Interdisciplinary Studies, Academic Advancement Programs, and the Honors in the Major and Office of Prestigious Awards from The Burnett Honors College.

Many of you have been very involved in the discussions surrounding Colbourn Hall and Trevor Colbourn Hall, and we have greatly valued your input during the process of creating new spaces to best support our faculty and staff. All previous commitments made during our discussions will be honored in this new plan.

We will be holding a meeting in early July (appointment coming soon) to kick off the design phase of the new building, but I wanted to share some of the details with you prior to the trustees' meeting next week.

With the construction of this larger new building, the university will seek approval from the Board of Trustees to raze the existing Colbourn Hall. It will not be demolished until Trevor Colbourn is built and faculty and staff have relocated to the new building, likely in early Fall 2018.

This change in plans will delay the completion of Trevor Colbourn Hall about four months – from April to August 2018 – but it will allow the additional offices and faculty previously slated to occupy the renovated Colbourn Hall space to move a year earlier than originally planned.

The new Trevor Colbourn Hall will feature walled offices for full-time faculty members, shared offices for adjuncts, and open space for graduate teaching assistants, as well as a mix of collaboration spaces, private meeting rooms, and multi-purpose rooms.

Some units that had been considered for the two buildings will be housed in other main campus locations. These include the new faculty clusters and office space for the Rosen College, which are being accommodated in other existing and new space. Additionally, the Philosophy Department will remain in its current location in the Psychology Building.

Leading up to and after our July meeting, you are welcome to contact Joel Hartman for questions related to space and technology, and Lee Kernek for questions about building programming, design, and construction.

Thank you for your passion and commitment to this project, and I look forward to working together to imagine how this new space will advance our academic mission and the work you do every day.

Best wishes,
Dale

A. Dale Whittaker, Ph.D.
Provost and Executive Vice President
University of Central Florida

Please note: Florida has a very broad open records law (F. S. 119). E-mails may be subject to public disclosure.

University of
Central
Florida

Board of Trustees
Finance and Facilities Committee Meeting
President's Boardroom, Millican Hall, 3rd floor
June 27, 2016

MINUTES

CALL TO ORDER
Trustee Alex Martins, chair of the Finance and Facilities Committee, called the meeting to order at 8:32 a.m. Committee members Bill Yeargin, Christopher Clemente, and David Walsh were present. Committee member Keith Koons and chairman Marcos Marchena attended by teleconference.

MINUTES APPROVAL
The minutes of the April 29, 2016, and May 31, 2016, Finance and Facilities Committee meetings were approved as submitted.

NEW BUSINESS
Direct Support Organizations' 2014-15 Third-Quarter Financial Reports (INFO-1)
William F. Merck II, Vice President for Administration and Finance and Chief Financial Officer, and John C. Pittman, Associate Vice President for Administration and Finance, Debt Management, reported that the 2015-16 third-quarter financial reports ended March 31, 2015, for the UCF DSOs were provided as information items.

Release of Unrestricted UCF Stadium Corporation Revenues (FFC-1)
Merck and Pittman requested the release of unrestricted UCF Stadium Corporation revenues. The 2015-16 budget was approved by the UCF Stadium Corporation's board, which reflects projected unrestricted excess revenues of $3,876,922 to be available for transfer to the UCFAA. The committee unanimously approved the release of unrestricted UCF Stadium Corporation revenues as presented.

2015-16 Direct Support Organizations' Budgets (FFC-2)
Merck presented for approval the 2016-17 operating budgets for the following DSOs: UCF Athletics Association, UCF Convocation Corporation, UCF Finance Corporation, UCF Foundation, UCF Research Foundation, and UCF Stadium Corporation. The committee unanimously approved the budgets as presented.

Five-year Capital Improvement Plan (FFC-3)
Merck and Lee Kernek, Associate Vice President for Administration and Finance, requested approval of the capital improvement plan options for 2017-18 through 2021-22. Each year, the university must submit an updated capital improvement plan to the Board of Governors. This plan identifies projects that will be included in the three-year Public Education Capital Outlay

list and provides information to the State Board of Education for its request for capital project funding for 2017-18. The capital improvement plan must be submitted to the Board of Governors' staff by August 1, 2016.

The committee unanimously approved the 2017-18 Capital Improvement Plan with the projects listed in the attached schedules.

Razing of Building 18 (FFC-4)
Merck and Kernek presented a request for the razing of Building 18, also known as Colbourn Hall. Building 18 is in poor condition and should be demolished. The estimated cost to correct the problems within the building is in excess of $15,000,000, which is greater than 60 percent of the building cost.

According to Administrative Rule 6C-9.004 Razing of Buildings, as prescribed by Section 240.22 Florida Statutes, Universities, each university's Board of Trustees shall have the authority to raze buildings. Prior to demolition of any educational support facility with a replacement cost exceeding $1,000,000, the university shall obtain an Educational Plant Survey recommendation for demolition. The university Board of Trustees shall review and approve the Educational Plant Survey recommendation and transmit it to the Board of Governors for validation.

A spot survey by the BOG's staff has been requested. The committee unanimously approved the demolition of Building 18.

Status of UCF Projects Presentation (INFO-4)
Kernek gave a presentation on the status of the active as well as planned construction and renovation projects on campus.

Chair Martins adjourned the Finance and Facilities Committee meeting at 10:27 a.m.

Respectfully submitted: _William F. Merck II_   _8-1-16_
                           William F. Merck II   Date
                           Vice President for Administration and Finance
                            and Chief Financial Officer

ITEM: **FFC-4**

University of Central Florida
Board of Trustees
Finance and Facilities Committee

SUBJECT: Razing of Building 18

DATE: June 27, 2016

PROPOSED COMMITTEE ACTION

Approve the demolition of building 18, contingent upon the Educational Plant Survey recommendation, and authorize the president to make necessary adjustments.

BACKGROUND INFORMATION

Building 18 is in poor condition and should be demolished. Deficiencies are found in structure, the building envelope, indoor air quality, fire alarm systems, potable water and plumbing distribution systems, electrical service, asbestos, HVAC, lighting, building automation, ADA compliance, interior finishes, flooring, egress, exterior lighting, and utility service entrances. Information technology upgrades also are necessary in order to meet current and future technology requirements. The building is showing signs of structural deterioration on the second and third floor exposed-exterior walkways, around the perimeter of the building, and throughout on steel handrails and structural steel-shelf angles.

The estimated cost to correct the problems within the building is in excess of $15,000,000, which is greater than 60 percent of the building cost.

According to Administrative Rule 6C-9.004 Razing of Buildings, as prescribed by Section 240.22 Florida Statutes, Universities, each university's Board of Trustees shall have the authority to raze buildings. Prior to demolition of any educational support facility with a replacement cost exceeding $1,000,000, the university shall obtain an Educational Plant Survey recommendation for demolition. The university Board of Trustees shall review and approve the Educational Plant Survey recommendation and transmit it to the Board of Governors for validation.

A spot survey by the BOG's staff has been requested.

29

Supporting documentation: Attachment A: Photographs of the building

Prepared by: Lee Kernek, Associate Vice President for Administration and Finance

Submitted by: William F. Merck II, Vice President for Administration and Finance
and Chief Financial Officer

Attachment A
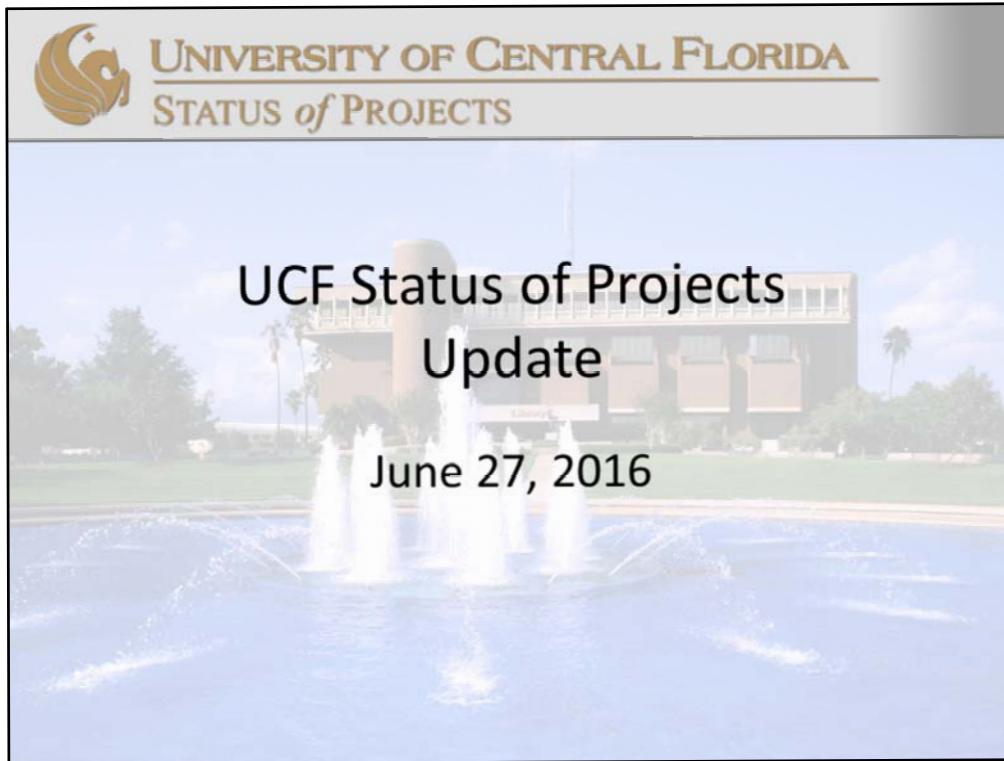
Since starting construction in January 1967, UCF has grown to 163 buildings on the main campus. There is currently **$170M** of projects under design and construction (major **$136M** and minor **$34M** projects), not counting the forthcoming UCF downtown campus projects.

In today's presentation, I'm going to give you a snapshot of how we compare with the other state universities in space needs, PECO funding requests, and funding allocations.   I'll then give a big picture overview of our campus projects, briefly discuss our minor projects and deferred maintenance, and then move to major projects. Major projects shown generally follows the order of completion, starting with projects recently completed, then projects currently under construction, projects currently in design, and finally projects still in the concept phase. While I'm only going to cover some key projects, the current numbers are:

18 Major Projects (Student Health Center Addition, Global UCF, Parking Deck C expansion, Interdisciplinary, Trevor Colbourn Hall, Wayne Densch Center for Student Athlete Leadership, Library Expansion, District Energy Plant IV, Mathematical Sciences HVAC, Engineering 1 HVAC, Libra Road, Bennett

Buildings, Partnership 4, Student Union Expansion, Arena Scoreboard, BHNS Stadium Scoreboard, UCF Downtown Academic Building, UCF Downtown Parking Garage)

380 Minor Projects (construction value of $2M or less)
<u>Totals:</u>
- **40** in closeout
- **90** in construction
- **250** in design/permitting

UNIVERSITY OF CENTRAL FLORIDA

SUS Educational Plant Survey Comparison

University	Survey Year	Percent of Space Needs									
		CL	TL	ST	OF	AE	IM	SS	GY	CS	Total
FAMU	2019-20	131	176	80	106	47	46	0	73	103	94
FAU	2020-21	97	88	40	118	112	17	0	25	60	77
FGCU	2017-18	82	88	29	63	15	3	7	38	43	40
FIU	2020-21	71	69	34	88	121	23	0	44	74	64
FSU	2017-19	98	95	53	106	103	14	60	43	75	78
NCF	2018-19	340	246	572	145	35	23	0	0	94	102
UCF	**2020-21**	**78**	**50**	**26**	**79**	**23**	**12**	**0**	**10**	**50**	**50**
UF	2018-19	103	68	45	82	69	46	0	48	72	68
UNF	2019-20	90	98	62	96	71	14	0	98	106	84
USF	2016-17	63	79	44	80	20	5	100	80	48	58
UWF	2016-17	118	104	63	104	105	19	0	159	136	90

CL – Classroom
TL – Teaching Lab
ST Study
RL – Research Lab
AE – Auditorium/Exhibit
IM – Instructional Media
SS – Student Academic Support
GY – Gymnasium
CS – Campus Support Services

2

At one of our last Facilities and Finance Committee meetings, the Committee requested comparison data on State University System Educational Plant Surveys. Because only two – three universities are surveyed each year, the data is not a direct comparison, but it does provide a snapshot of space needs across the state.

UCF was just surveyed in 2015, and our survey was validated by the Board of Governors at their June board meeting. The 2015 survey group is the last group to be surveyed under the current guidance, which is a benefit for UCF.

UNIVERSITY OF CENTRAL FLORIDA

SUS PECO-Eligible Project Request Comparison

University	2016-17	2017-18	2018-19	2019-20	2020-21
FAMU	$63	$86	$63	$103	$7
FAU	$45	$85	$49	$42	$24
FGCU	$16	$45	$15	$12	$7
FIU	$53	$72	$101	$152	$162
FPU	$10	$27	$23	$6	$0
FSU	$91	$258	$132	$33	$67
NCF	$12	$9	$15	$15	$16
UCF	**$101**	**$147**	**$79**	**$191**	**$26**
UF	$69	$128	$72	$81	$250
UNF	$33	$25	$13	$14	$21
USF	$87	$177	$116	$133	$93
UWF	$9	$10	$15	$76	$20

Dollars in millions

3

Another item requested by this Committee is a comparison of SUS PECO requests. The data on this slide comes from the 2015 submission and shows the 5-year requests from each of the 12 institutions. The submissions are revised yearly, and the focus each year is on the first three years of the five-year request.

UNIVERSITY OF CENTRAL FLORIDA

SUS PECO Funding Comparison

University	2013-14	2014-15	2015-16	2016-17
FAMU	215	10,000	7,635	6,500
FAMU/FSU		10,000		
FAU	1,006			3,031
FGCU		7,000	6,800	3,852
FIU	5,678	16,800	2,253	7,062
FPU				5,000
FSU	1,020	20,000	5,000	13,500
NCF	2,100	3,455	3,000	4,222
UCF	**1,317**	**8,000**	**20,000**	**34,000**
UF	15,480	30,000	13,000	27,839
UNF	4,000	11,750	3,000	11,000
USF	21,000	30,000	29,257	22,500
UWF	8,400	11,000		13,800

Dollars in thousands

4

This slide gives you a snapshot of the State's approved capital funding for the past 3 years.

UNIVERSITY OF CENTRAL FLORIDA

SUS Maintenance/Repair/Renovation and Remodeling Comparison

University	Funded 2014-15	Funded 2015-16	BOG Request 2016-17
COE			185
FAMU	1,849	1,620	2,658
FAU	2,044	1,815	3,205
FGCU	501	412	726
FIU	3,189	2,725	4,890
FSU	5,681	4,902	8,825
NCF	218	250	446
UCF	**2,925**	**2,672**	**4,762**
UF	13,633	14,073	24,440
UNF	1,182	996	1,798
USF	5,437	4,676	8,350
UWF	990	849	1,499

2016-17 LBR and Comparative Actual
Dollars in thousands

5

Every year, in addition to the approved capital funding, the State has provided Maintenance/Repair/Renovation and Remodeling (AKA "minor projects" funding, or "sum of the digits" funding). This funding is separate from Utilities Infrastructure or PO&M. The funding amounts are determined by a formula that is based on square footage and age. It does NOT include space utilization, numbers of students, or hours of operation.
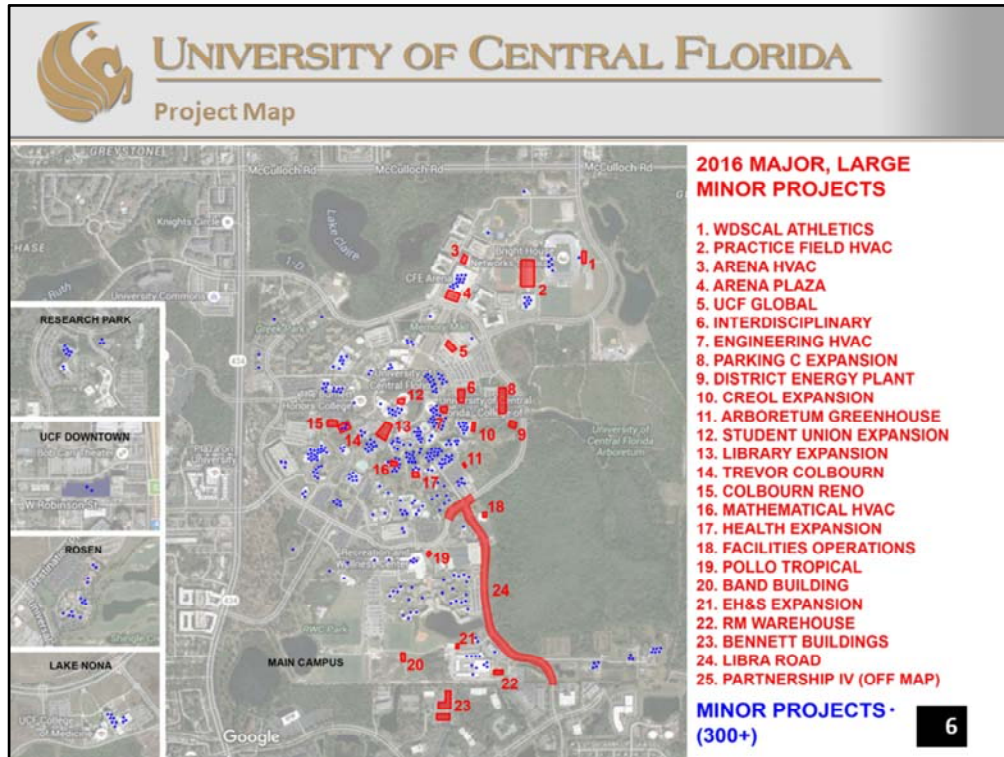
While Major Projects make up the majority of the cost of our projects (**$136M** under design and construction, not counting UCF Downtown), Minor Projects (**$34M**) make up the majority of our workload.

- We currently have **380** Minor Projects and **18** Major Projects – Minors make up **95%** of our project count
- These projects are managed by a staff of 11 Project Managers, 3 Assistant/Associate Directors, and support staff
- Project Managers have an average of **35** projects each
- The map above illustrates in blue the quantity of minor projects

These are some examples of large minor projects - range from re-roofs to space upgrades to HVAC replacements
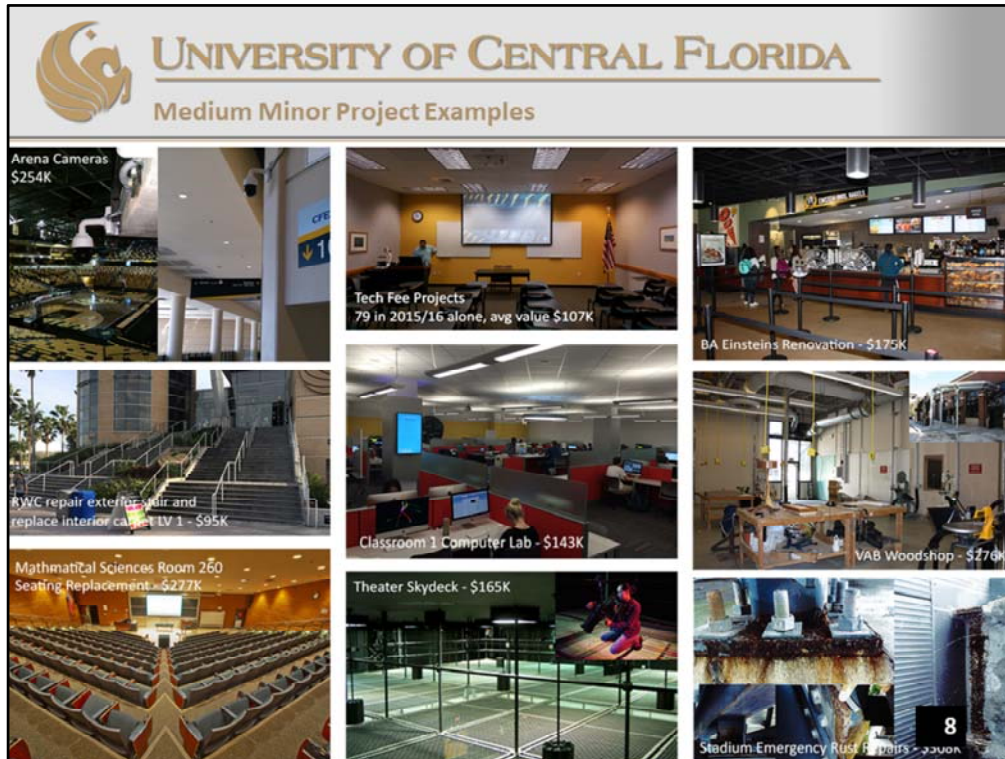
Examples of medium size minor projects include repair and maintenance to tech fee upgrades to rust remediation to life safety upgrades

Examples of small minor projects include such things as office buildouts to campus signage to equipment replacement

Small projects under $50K make up **50%** of our project workload, by project count, and include such things as access control to electrical upgrades to camera installations

University of Central Florida — Deferred Maintenance. Facility Condition Analysis, Executive Summary.

SYSTEM DESCRIPTION	PRIORITIES				TOTALS
	1	2	3	4	
ACCESSIBILITY	0	1,239,348	2,253,693	96,445	$3,589,486
ELECTRICAL	0	1,105,063	20,323,784	5,319,058	$26,747,905
EXTERIOR	0	1,446,794	10,840,637	7,280,570	$19,568,001
FIRE/LIFE SAFETY	27,131	6,062,889	1,605,081	1,888,916	$9,584,017
HEALTH	0	0	63,549	0	$63,549
HVAC	0	9,099,716	45,492,989	14,733,199	$69,325,904
INTERIOR FINISHES/SYS	0	23,200,407	25,598,504	9,074,993	$57,873,904
PLUMBING	0	0	5,346,889	7,901,425	$13,248,314
SITE	0	0	210,024	547,208	$757,232
VERT. TRANSPORTATION	0	0	1,867,131	761,830	$2,628,961
TOTALS	$27,131	$42,154,217	$113,602,283	$47,603,643	$203,387,274

- 2012 ISES reports concluded that UCF had over $200M of deferred maintenance needs
- This amount was bought down to approx. $146M, using Carry Forward funds, but grows annually as our campus continues to age
- The state is not adequately funding deferred maintenance, so we must be creative in how we prioritize and solve these needs
- The University should continue to invest in its existiing buildings to avoid catastrophic problems and optimize the lifespan of our facilities.

Top Left – Building 5: Chemistry - Soffit deteriorated and fell.

Top Right – Building 20: Biomedical Sciences - Unfinished concrete entrance needs to be waterproofed.

Bottom Left - Building 21: Education Complex - Penthouse for HVAC equipment deteriorated and needs renovation.

Bottom Right - Building 40: Engineering I - Skylight inaccessible and cause of water intrusion. Needs to be removed or replaced with reliable system.

UNIVERSITY OF CENTRAL FLORIDA
STATUS *of* PROJECTS

I've included a campus map for reference as we go through the projects, and I have individual location maps at the end of the presentation if you would like to view any of the project sites close-up.

Located in Research Park, south of Facilities & Safety Complex

Architect: ACI
Contractor: Wharton Smith
Project Cost: $6,000,000
Funding Source: University-funded – C&G

10,000 **GSF**
Description:
- Renovation of existing buildings to accommodate research labs and business incubation and to meet Florida Building Code requirements
- Adds 5 labs and 3 fume hoods
- Modernizes 110 offices and conference rooms
- Upgrades mechanical & electrical systems
- Replaced roofing systems

Status: Construction Complete, project in close-out
LEED: N/A

The buildings include space for incubator clients and potential temporary space for faculty cluster hires, until larger new construction projects can be completed

When the clusters are permanently located, the space will be used for the UCF Incubator Program (ROI)

Located east of Brighthouse Networks Stadium

Architect: KZF
Contractor: Wharton Smith
Project Cost: $6M
Funding Source: Donor funding

22,000 **GSF**
Description:
- Provides new front door to the east side of the stadium
- Designed to accommodate future growth of stadium stands
- Modernizes athletic facilities, which will assist in recruitment for both student athletes and athletic staff
- Offices, tutoring rooms, computer labs, student services, study areas, career counseling space, conference rooms, and multipurpose rooms for student athletes

Status: Construction Complete, project in close-out
LEED: Tracking Silver

UCF Football set a program record with an Academic Progress Rate (APR) of 983 for multiple years, which ranks 11th among Football Bowl Subdivisions (FBS) institutions

Highest mark in the American Athletic Conference since the conference's existence.

UNIVERSITY OF CENTRAL FLORIDA
Arboretum Greenhouse

Located southeast of Physical Sciences building

Architect: KZF
Contractor: Wharton Smith
Project Cost: $430K
Funding Source: Biology, Landscape and Natural Resources, and Utilities/Infrastructure funds

1,000 **GSF**
Description: Pre-fabricated, 24' x 40' greenhouse. Replaces the greenhouse that was damaged during the 2004 hurricanes and the temporary structures that have been in use since. Provides space for plant propagation for classes and student projects, as well as public outreach for environmental programs .

Status: Construction Complete; project in close-out
LEED: N/A

Located south of Parking Garage D, adjacent to Memory Mall

Architect: Schenkel Shultz
Contractor: Clancy & Theys
Project Cost: $16.6M
Funding Source: University-funded – internal sources

56,000 **GSF**
Description: Classroom space for transitioning international students into a campus learning environment:
45 faculty offices
18 classrooms
3 computer labs
4 conference rooms
Global UCF commons area
Designed with high efficiency mechanical systems

Status: Construction Complete, project in close-out
LEED: Tracking Gold

University of Central Florida
Mathematical Sciences Building Renovation

Located south of Technology Commons

Engineer: Moses and Associates
Contractor: CPPI
Project Cost: $3.9M MEP (+$10.1M balance to complete full renovation)
Funding Source: PECO

106,523 **GSF**
Description: Because of limited funding, scope is limited to:
• Replace HVAC

Additional funding was requested to:
• Provide life safety upgrades
• Meet Florida Building Code requirements
• Upgrade electrical system

Status: Construction – 3 of 4 AHUs installed over winter break 2015; units operational, finalizing CxA
As part of CxA we have discovered significant holes in the building's ductwork,

which we will be repairing over the summer with remaining project funds. The fourth AHU will be installed in December 2016.

Estimated Completion Date: March 2017
LEED: Will wait for additional funds to complete building renovation and will target Silver

University of Central Florida
Libra Drive Widening and Campus Asphalt Replacement

Located east of Academic Villages Also Need CARP

Engineer: Harris Civil Engineers
Contractors: Libra – Stage Door II, CARP – Allstate Paving
Project Cost: Libra - $4.4M, CARP - $1.1M Hard Bid project
Funding Source: University-internal and Utilities Infrastructure

UNIVERSITY OF CENTRAL FLORIDA
Libra Drive Widening and Campus Asphalt Replacement

Description: Libra – Widens road from 2 lanes to 4 lanes, with bike lanes on both sides – in accordance with the Campus Master Plan. It addresses stormwater control issues, and improves the road system at the intersection of Libra and Gemini, and south of Gemini Blvd.
CARP – Replaces asphalt in select locations on campus.

Status: CARP – Completed; Libra Drive - Construction
Estimated Completion Date: Libra Drive – prior to Fall 2016 classes

Located south of Engineering Building II in Academic Core

Engineer: SGM
Contractor: Barr and Barr
Project Cost: $3.6M MEP (+$14.9M balance to complete full renovation)
Funding Source: PECO

130,885 **GSF**
Description: Because of limited funding, scope is limited to:
- Replace AHUs
- Provide limited lab exhaust upgrades

Additional funding was requested to:
- life safety upgrades
- Meet Florida Building Code requirements
- Upgrade electrical system

Status: Construction Documents – working through code compliance issues with existing ventilation

Estimated Completion Date: May 2017

LEED: Will wait for additional funds to complete building renovation and will target Silver

Located in existing Student Health Center, south of Chemistry building

Architect: HKS
Contractor: Barton Malow
Project Cost: $3.9M
Funding Source: University-funded – internal sources

10,400 **GSF NEW,** 2,600 **GSF Renovation**
Description:
- Creates state of the art programs for serving student needs related to international health, travel medicine, and immunizations.
- Includes space for psychiatry, substance abuse counseling, biofeedback, and dieticians.
- Building expansion includes:
  - reception
  - 15 patient care rooms
  - 15 provider offices
  - 5 records offices, records room
  - 1 conference room

- Marketing suite
- Storage
- Improved building appearance
- Upgrade of building HVAC controls

Status: Construction
Estimated Completion Date: August 2016
LEED: Tracking Silver
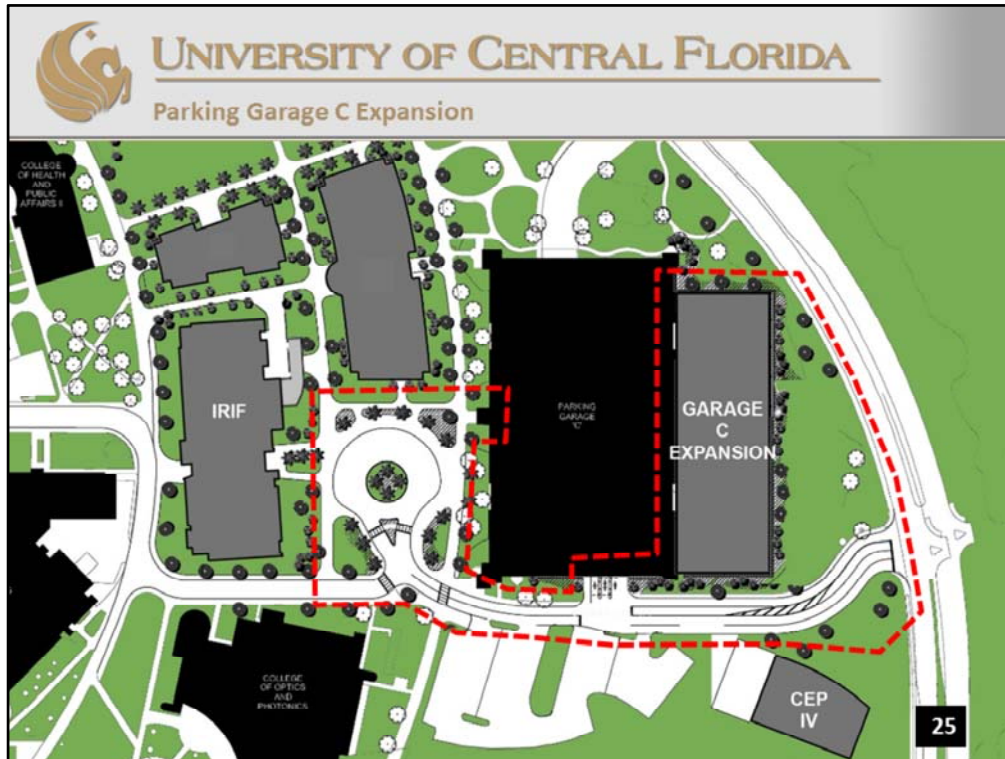
Located east of Parking Garage C

Architect: Schenkel Shultz (selected as part of the Global UCF project)
Contractor: Clancy & Theys (selected as part of the Global UCF project)
Project Cost: $9M
Funding Source: Parking Services

Description:
Project necessary due to the loss of parking caused by Interdisciplinary and UCF Global.
Adds 600 spaces and elevator to existing Garage C;
Includes ingress/egress improvements to the parking deck, and road improvements;
Adds transportation hub.

Status: Construction
Estimated Completion Date: August 2016
LEED: N/A – not LEED, but using sustainable principles (locally sourced materials, limited site disruption, etc.)

University of Central Florida — BHNS Video Board Enhancements

Located within the Brighthouse Networks Stadium

Video Board Installer: Daktronics
Project Cost: $5.4M
Funding Source: Internal – auxiliary reserves

Description:
Project will include:
- New north end zone video and audio board
- New south end zone video board
- New controls equipment, as necessary
- Structural, electrical, and telecom upgrades as necessary

Located adjacent to the BHNS Stadium

Architect: RLF
Contractor: Chilled Water Infrastructure – Barton Malow; HVAC – hard bid
Project Cost: Chilled Water - $1.7M; HVAC and additional upgrades - $4.7M;
Temporary HVAC - $790K
Funding Source: University-funded – internal sources

Description:
The two projects will include:
- Temporary HVAC @ 78 degrees for the 2016 Football Season
- Permanent HVAC @ 72 degrees for 2017 and beyond
    - New chilled water extension to the NFH
    - Sprinklers and life safety upgrades so that it can accommodate up to 2,500 occupants
    - Additional restrooms
    - Insulation
    - Potential lighting upgrade (LED lights)

Status: Construction Documents
Estimated Completion Date: Temporary HVAC by August 7; Permanent HVAC and additional upgradesby June 2017
LEED: N/A

Located in front of the UCF Arena

Engineer/Architect: TLC/Morris
Contractors: Barton Malow/Wharton Smith
Project Cost: $2.7M/$700K (DOES NOT include donor wall)
Funding Source: University and Convocation Corporation funded

GSF: N/A
Description: Cosmetic Renovation of the plaza area in front of the UCF Arena, and East Plaza Drive. Two projects: 1) hardscape/landscape/power, 2) spires

Status: Construction
Estimated Completion Date: September 2016
LEED: N/A

Located in the UCF Arena

Video Board Installer: Daktronics
Project Cost: $2.1M
Funding Source: Internal – auxiliary reserves

Description:
Project will include:
- New suspended video board and audio systems
- New upper level ribbon video board
- New courtside video board tables
- New controls equipment, as necessary
- Structural, electrical, and telecom upgrades as necessary

Status: Construction Documents
Estimated Completion Date: October 2017
LEED: N/A

Located in Facilities & Safety Complex

Architect: Schenkel Shultz
Contractor: Heard Construction (Continuing Services GC Quotes hard bid)
Project Cost: $2M
Funding Source: University-funded – internal sources

9,000 **GSF**
Description:
- Adds additional warehouse capacity for surplus & storage
- Hard drive shredder
- Postal pack & ship in support of surplus program
- Revenue generation – roughly $300K in sales annually

Status: Design and bidding complete; construction to begin July 2016
Estimated Completion Date: Dec 16
LEED: Targeting Silver

Located adjacent to the Recreation & Wellness Center

Architect: BRPH
Contractor: CPPI
Project Cost: $3.3M
Funding Source: Aramark funded $2.5M; University-funded remaining – internal sources

GSF: 3,200 sf
Description:
New stand-alone dining facility to house a Pollo Tropical and Café Buscelo. Provides foodservice venue in an area of campus near housing with little food options.
Thousands of student foot traffic per day going from housing to main campus and recreation area.
Student Government Association, Student Development and Enrollment Services, and RWC were consulted about the vendor selection and project design.

Status: Permitting and Early Foundation Construction
Estimated Completion Date: January 2017
LEED: Targeting Certified

Located adjacent to the existing band practice field, west of the Facilities and Safety Complex

Architect: Little Architects
Contractor: TBD (will be hard bid through our GC Quotes process to our Continuing Service contractors)
Project Cost: $2.5M
Funding Source: University-funded – internal sources

GSF: 4,000 gsf interior, 7,200 gsf covered exterior
Description:
New stand-alone band facility.
Provides shelter from the elements, instrument storage, restrooms, and an exterior covered practice area.
Includes new permanent lighting for the practice field.

Status: Bidding (GC Quotes)
Estimated Completion Date: January 2017
LEED: N/A

Located southeast of Parking Garage C

Engineer: RLF
Contractor: CPPI
Project Cost: $15.1M
Funding Source: University-funded – internal sources

GSF: 9,600 GSF
Description: Add additional chilled water capacity for future growth for the campus. Will add 2 additional chillers (with expansion to 4 chillers) and associated cooling towers. Project must be aesthetically pleasing due to its proximity to Gemini road.

Status: Construction Documents; anticipate construction start August 2016
Estimated Completion Date: August 2017
LEED: Possible LEED Certified

Located west of Parking Garage C

Architect: Ponikvar and Associates
Contractor: CPPI
Project Cost: $46.6M over 2 phases; $30M Phase I, $16.6M phase 2
Funding Source: University funded – internal funds (requested PECO but have not received)

99,000 **GSF** for both phases (63,000 GSF Phase I, 36,000 GSF Phase II)
Description:
- 30 research/incubator labs, 20 material characterization rooms, conference rooms, offices, and ancillary spaces
- Houses programs from the following:
    - Office of Research and Commercialization (ORC)
    - College of Sciences (COS)
    - College of Engineering and Computer Sciences (CECS)
- Programs include:
    - Materials Characterization Facility
    - NanoSciences Technology Center

- Sustainable Coastal Systems Cluster
- Energy Conversion and Propulsion Cluster
- Resilient, Intelligent, and Sustainable Energy Systems (RISES) Cluster
- Cybersecurity and Privacy Cluster
- Human Augmentation Robotics Cluster

Status: Construction
Estimated Completion Date: Phase 1 - August 2017; Phase 2 – October 2017
LEED: Tracking Gold

Phase 2 recently approved – we are currently bidding this phase in an effort to gets completion date close to Phase 1.

Located south of Student Union and east of John T. Washington Center

Architect: Holzman Moss Bottino
Contractor: Turner Construction
Project Cost: $76.9M over 3 phases; $19.3M Phase I
Funding Source: CITF and Utilities Infrastructure for Phase I

Phase I: 8,000 **GSF**

Description:
Phase I
- Automatic Retrieval Center (50% of robot)
- Add sprinklers to the existing library building
- ADA restroom upgrades to the existing library building
- renovation of 7,500 sf of area on the 5th floor of the existing library to provide study space for students.

Phase 2 – connector to existing library, Phase 3 – full interior renovation of the existing library and the final 50% of the robot

University of Central Florida
John C. Hitt Library Expansion and Renovation

Automated Retrieval Center
Source: Sonoma State University, Rohnert Park, CA
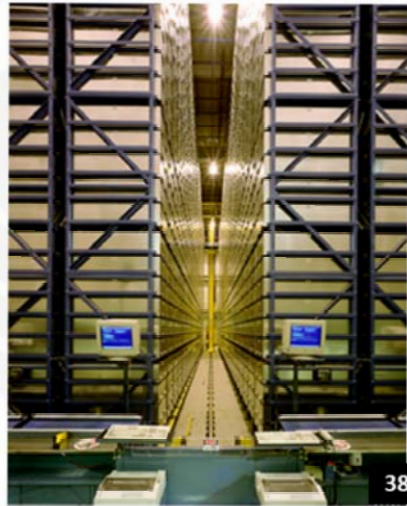
- ARC Statistics
  - 2.25M volumes of material
  - Request for materials from any device with internet access
  - Automatic crane locates materials and delivers to pick-up station
  - 5-10 minutes for entire process

Status: GMP Negotiations; Anticipated construction start July 2016
Estimated Completion Date Phase I: November 2017
LEED: Will wait to apply when entire facility is completed; targeting Gold

Located along Alafaya Tr. buffer west of Parking Garage A

Description: The boutique hotel and conference center will serve as an enhancement to existing academic facilities and will add a desirable service component to the campus. It is being designed, constructed, and operated by a private developer.

GSF: 99,776 GSF, 135 guestrooms
Estimated Project Cost: private developer
Projected Construction Dates: July 2016 to mid-fall 2017
Developer: KUD
Architect: Baker Barrios
Contractor: Batson Cook

Status: Construction Documents. St Johns, DEP, and UCF BCO foundation permit issued. Construction expected to start July 2016.

Building addition to the east of the existing CREOL building

Architect: RLF
Contractor: Robins Morton
Project Cost: $6.8M
Funding Source: University-funded – internal sources

GSF: 13,900 gsf addition
Description:
Project will include:
- New labs
- New offices for faculty
- Shelled auditorium for instruction and guest lecturers

Status: Contract Negotiation
Estimated Completion Date: January 2018
LEED: Targeting Silver

Located adjacent to Rehearsal Hall west of John T. Washington Center

Architect: Schenkel Shultz
Contractor: Clancy & Theys
Project Cost: Included in Trevor Colbourn Hall project
Funding Source: University-funded – internal sources

84K GSF
Description:
- Building will be demolished
- Independent engineering analysis revealed:
    - Structural defects
    - Water intrusion issues
    - Mechanical systems past life-span
    - Life Safety deficiencies
    - Building needs to be gutted to structure and rebuilt to current building codes
    - Rising construction costs weighed against value of the asset

indicate that demolition of this building and construction of additional space in Trevor Colbourn Hall is a better option than renovating this facility.

University of Central Florida
Trevor Colbourn Hall

Approximately **76K** GSF

Description:

- **Will house the current occupants of Colbourn Hall (including English; Writing and Rhetoric; History, Modern Languages; Texts and Technology; Judaic Studies; African Studies; Women's Studies; Latin American Studies; the College of Arts and Humanities' Advising Office; the University Writing Center; the Center for Humanities and Digital Research; the Graduate Student Center; and 7 classrooms, 2 conference rooms, and ancillary space**
- **Will also house Student Development and Enrollment Services, First Year Advising, Sophomore and Second Year Advising, Transfer and Transitions, Student Academic Resource Center, Undergraduate Studies, Undergraduate Advising, McNair/RAMP, Undergraduate Interdisciplinary Studies, Burnett Honors College (4 offices), Office of Prestigious Awards, and Honors in Majors**

Status: Schematic Design
Estimated Completion Date: August 2018
LEED: Targeting Gold
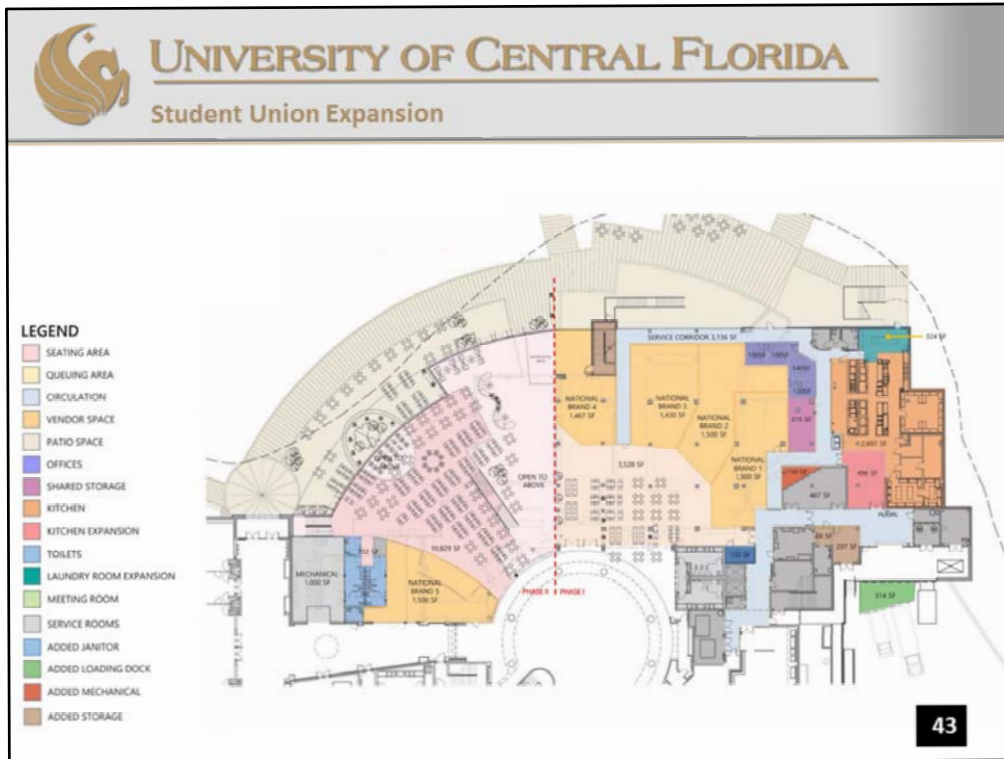
Expansion to the Student Union

Architect: TBD – Advertised AE only
Contractor: TBD
Project Cost: $14.3M
Funding Source: Aramark

GSF: TBD
Description:
Renovation and expansion of food court area of student union, in coordination with Aramark.
• New food concepts
• Expanded seating
• Foodservice back of house renovations
Aramark gets long-term contract.

Status: In the Selection process; Concept Design underway with a continuing service architect (Zyscovich)
Estimated Completion Date: TBD

LEED: N/A

Located in Research Park at the corner of Science Drive and Ingenuity Drive

Architect: TBD – Jointly advertised, Interviews on July 29
Contractor: TBD
Project Cost: $8M received in 2014; $20M received in 2015; $14M received in 2016
Funding Source: PECO

GSF: 81,000 gsf, cost $13,898,216

Description:
DoD partners currently occupy approximately 200K s.f. in 3 leased facilities. Creates classified labs for both the Military and UCF
- Satisfies the demand from local MS&T employers for UCF students trained in advanced technologies
- Eliminates costly leases that could drive BRAC decisions
- Provides space in Research Park to support DOD presence and potential growth
- Avoids potential loss of strategic national programs and dollars to

the region and to the state

Project will consist of force protection, civil/parking improvements, potential parking deck, interior build-out of building, and acquisition of additional space.

Status: Meetings are being held on force protection requirements, which will drive further decisions and actions.
Estimated Completion Date: TBD
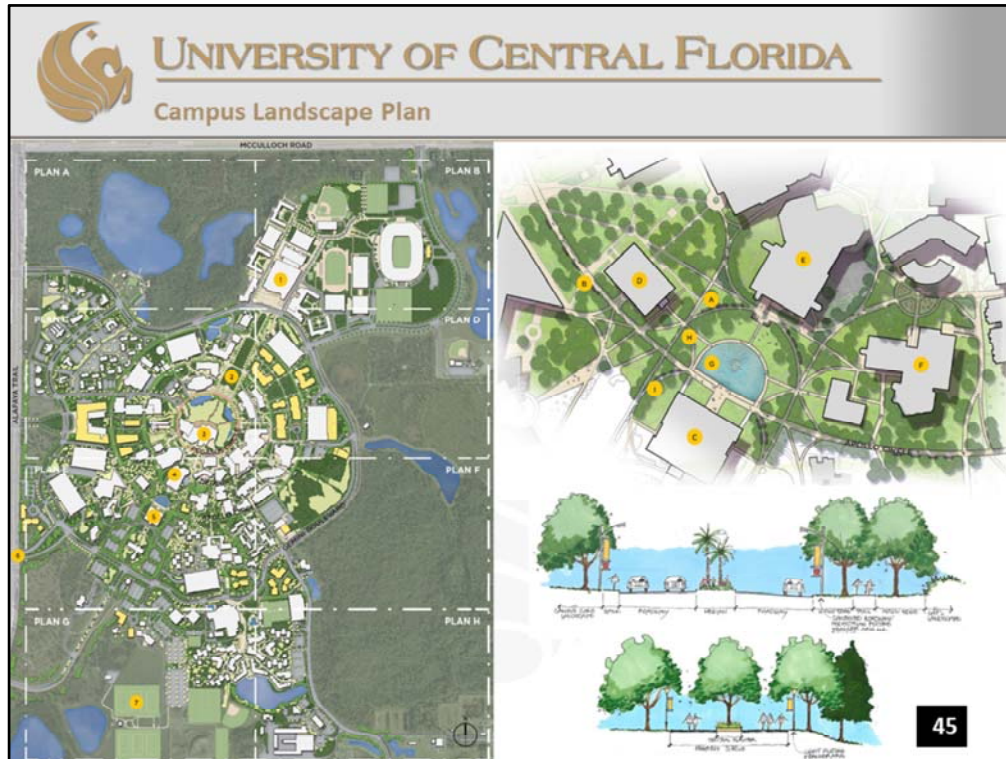
Bellomo-Herbert and Carol R. Johnson Associates Landscape Architects are the project consultants who are developing a campus landscape plan.
The plan establishes standards and guidelines for how landscape and hardscape create a sense of place.
Final draft is under review.

Located in downtown Orlando as part of Creative Village

Academic Building – 165,000 gsf
Architect: TBD
Contractor: TBD
Project Cost: $60M
Funding Source: 1/3 PECO; 1/3 Donor funds; 1/3 University internal funds

CEM Renovation – 27,724 gsf
Project Cost: $5M
Funding Source: University – internal

Parking Garage for 600 spaces
Project Cost: $10M
Funding Source: Bonded

Tri-generation Plant – 5,000 gsf
Project Cost: TBD
Funding Source: Exploring options

Description:
UCF is a key education anchor of a 65-acre Creative Village to work, learn, and play

Full-service campus for UCF, comprising 15 acres:
- A high-energy campus focused on the digital arts and communications, healthcare administration and technology, and public service including legal studies.
- Further strengthens Orlando as a high tech digital media destination; the City's existing digital media companies already make up one of the top ten digital media clusters in the United States
- Embeds UCF into the Orlando community, as thousands of students will live and study in the district
- Enriches our successful partnership with Valencia College, as they will bring complimentary programs to the downtown site
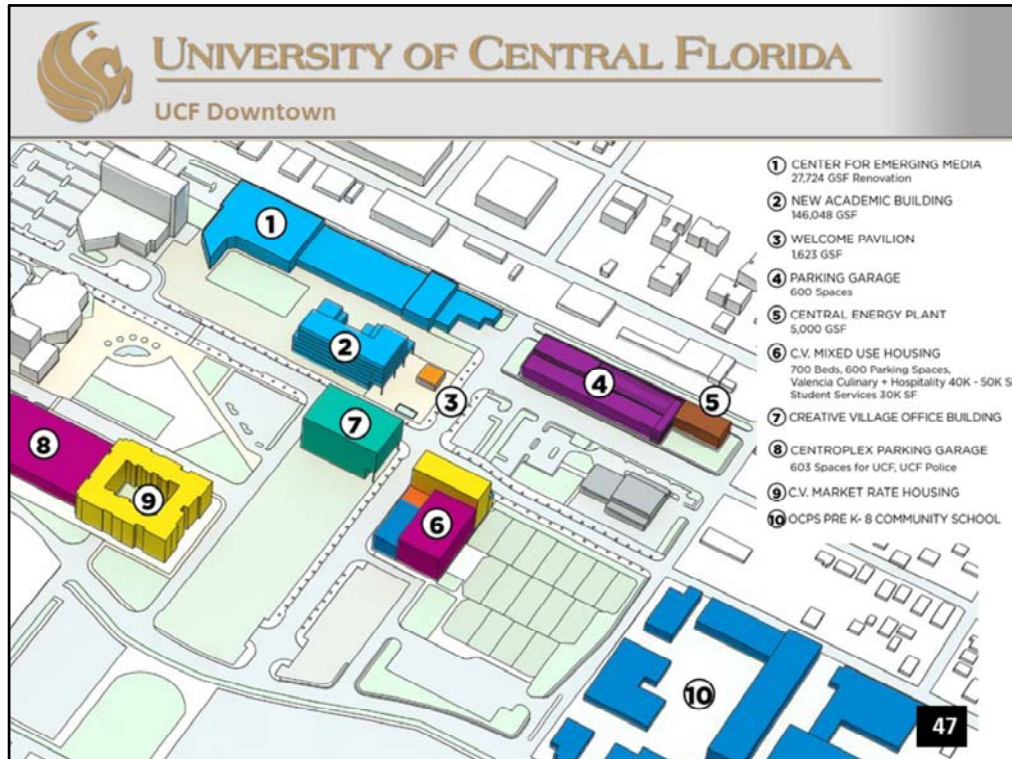
Status: Shortlisted firms were interviewed in June. A recommendation was sent to the President.

Estimated Completion Date: Asking AE/CM teams to determine feasibility of fast-tracking for Fall 2018 date

LEED: Targeting Gold

UCF programs include:
- COHPA: Legal Studies, Social Work, Health Management & Informatics,
- COHPA Centers: Center for Community Partnerships, Center for Public & Nonprofit Management, Center for Community Schools and Child welfare, Center for Law & Public Policy,
- Florida Center for Student with Unique Abilities
- Nicholson School of Communication: Human Communications, Masters in Communication
- College of Arts and Humanities: FIEA, CREATE, Flying Horse
- School of Visual Arts and Design: Digital Media
- Library, Student Support Services,
- Welcome Pavilion

Valencia College programs include:
- General Education
- Digital Media
- Health Information Technology
- Culinary & Hospitality

Questions?

Speaker	Dialogue
8:55-1:13:04	
MARTINS	FFC-3 The 5-year capital improvement plan. Lee Kernek. Good Morning, Lee…
KERNEK	Good morning. You ask for a little bit of process before we get into the actual plan and what that includes is every year we get together, um, meet with the, with Bill Merck, I meet with the Provost, I meet with Dr. Hitt before it ever comes to you. So, the items you see on here have come through that, um, [*shuffling papers*] those folks and they are here for you today. Once they are blessed off here, they go to the Board of Governors. This year the governors has asked for a special note in our letter to them explaining all the changes we've made and things that we are doing a little differently, so we put that letter together separately. The Board of Governors usually tells us what order they would like to see our items in the PECO list. We at UCF have not always followed their order because we believe that we have to do the right thing for UCF as opposed to what the Board of Governors is looking to us to do. They ca-, have the authority to make changes when it goes to the Board of Governors and they sometimes do or sometimes they send the-, the list in our order. It does go to the legislator, um, and the legislator reviews it and decides what they would, um, like to approve for funding and then it goes to the governor's desk. For UCF, one of the things we always do is we put that utilities, infrastructure, capital renewal, and roofs first on our priority because we believe that we cannot continue to acquire buildings that we can't take care of the buildings that we have. And we'll talk a little bit about, um, plan operations and maintenance funding that maintains those buildings as we go through the day. The first form in the packet is your 2017 five year capital improvement plan. It has several sections, the first section is the PECO projects. Those are projects that are el- eligible for PECO funding and which have had an education plant survey approval by the Board of Governors, um, team. You will note that in some of these sections you will see projects listed more than once, or you'll see dollar amounts that will appear to be conflicting fr-, fr-,from the same project. That's because we put things in any section where it might be funded. And the amounts that are in there are the amounts that could be funding from those types of dollars. So, the focus, and that's what you see in yellow, the focus is on the first three years and then we also include anything that might be, um, asked for in the next five years and we do revised this yearly. What you'll see in the PECO section and I, I've done this throughout, is I have, um, try to put things in red for you before it goes to the Board of Governors all of the red will change, um, so in your color packet we do have red and what you'll see is, um, the changes we've made. The next item on your agenda today is, is requesting razing the Colbourn Hall. So, I removed Colbourn Hall renovation from this, we've added money to the Trevor Colbourn Hall and added the demolition to that line as it will be completed as one project. The UCF downtown

Speaker	Dialogue
	academic building $20 million dollars is being removed because that was funded last year. We have added the Florida Solar Energy Center renovation, the infrastructure chilled water replacement and that's a bit unusual normally we would try to get that money from the utilities, infrastructure, capital renewal, and roofs line, but for the last several years we've had a difficult time getting any, um, utilities, infrastructure funding from the state and it's becoming critical, so a lot of people don't want to know what they don't know, but we believe, um, very strongly in finding out what kinds of issues we have here and trying to deal with them and we know right now that we have a lot of underground piping that is aging and really needs replacement, so we've added that as a separate line. We did, um, modify the College of Nursing and w-, we've increase the budget on that and we've added Allied Health to that. We've also, um, raised it in the priority list. We've added two research buildings, Research 1 and Research 2, because you know we are really, really short in the research category and we're replacing a strong emphasis on growing research at UCF. And the other addition there again is another one of those types of utilities infrastructure items the Waste Water Water and Natural Gas Replacement lines. The second category is the capital improvement trust fund category those are student fee funded items. What you see in 17 and 18 is the remainder to complete phase two of the John C. Hitt Library and in the second year that $38.7 million dollars is the Phase 3 of the Library. So, we'll talk in status of projects what's going on with the Library. We did submit a request to bond $30 million of the $38 million on this project and, um, Dr. Hitt has, um, discuss that, t- [*background noise*], that he would like to see the possibility of bonding that entire amount and completing the Library project so we are looking into that right now, this would complete the Library project. What you see in the request from other state sources, these are all projects that either are not yet PECO eligible because they haven't raised, um, high enough in the priority list or they, um, do not yet have an educational plant survey but they might need some sort of state funding and if we are funding something we also put that in the, that's where you sometimes see, um, items in multiple categories. So, if UCF has taken some state funds to fund, um, partial projects or entire projects you see them down here even if we're asking for them in PECO. So, we removed Partnership 4. We received that $14 million dollars last year. The Interdisciplinary Research and Incubator Facility Phase 2, this is the first building, but Phase 2 of that first building because we are doing this in two separate phases and UCF has funded that, that $16 million dollars for now. The Creole expansion is new and we are adding that, the stadio-, stadium video and sound is also new and we are adding that. One of the things tha-, that you will also note in the process is that if something is less than, $2 million dollars or less, we would normally

Speaker	Dialogue
	not have to put it on here unless it's athletics, if it's athletics, then we also have to put in on there if it's less than $2 million, so you may see some of those that are a little less. Uh, we've removed the Interdisciplinary Research and Incubator Facility $3 million dollars that UCF has already funded. The Colbourn Hall renovation that $15 million dollars that we are talking about moving to Trevor Colbourn but that's already been funded. Trevor Colbourn Hall, same thing. The Center for Emerging Media Build up, again those UCF dollars have already been funded so we no longer need to notice them on here. We've increased the budget for the campus entryways. We've changed the name of the Facilities Building at Lake Nona to the Facilities and Safety Building as the College of Medicine would like to include, um, the police in that same building. UCF Health Expansion and Wellness Center is also a name change. It used to just say UCF Health Expansion and that's a request by the College of Medicine. The Band Building 2 is a bit of a name change. We used to just say Band Building on there, this is the second phase of that which is the infrastructure, such as lighting and roads around the band facility. And then the last item in that section, says Wet Teaching Lab and Expanded Stem Facility. This item used to be called a, um, Lab and Classroom Building at Lake Nona. The College of Medicine had a-, has asked that we change it to this facility for the main campus as part of a program change. The next category is a request from non-state sources, so this could be anything that the university would like to have or anything that the DSO might like to have as well that would require some sort of debt. The Student Union expansion is an add, and that is an arrow marked funded project. The District Energy 4 Plant is, um, one that the UCF has funded, but it did not come from state funds, it came from non-state sources and that's already been funded so that's being removed. The Downtown Campus Academic Building, this is the $40 million dollars that was from, um, donor money and uh, the UCF funds that were not state funded, and it's already been funded, so it comes off. The Interdisciplinary Research and Incubator Facility, again this is where we took a-, an additional portion of that money that the state, um, that we were using for the current [*inaudible*], we are asking for full funding from the state, but we've supplemented those funds with, with we've advanced those funds. This did not come from state funds, but from auxiliary reserve type funding, so it goes in the non-state category. The UCF Downtown Campus Garage, again that's already been noticed. The USTA American Tennis, um, at Lake Nona, uh, has already been funded, so it comes off. The Hotel and Conference Center while not receiving our fund is non-state funded, uh, we noticed it last year, so we don't have to keep it on there once it's been noticed. The Wayne Dench Sports Center expansion, um, is new. Softball

Speaker	Dialogue
	stadium expansion and enhancements are new and that's one of those ones that's less than $2 million, but it's athletics. The Bride House Network Stadium expansion and improvement Phase 1 is, um, not exactly new, but we had it on and then we took it off and now we're re-adding this and this Phase 1 is the, um, premium seating phase. The Bride House Network Stadium expansion and improvement Phase 2 is the twenty-thousand seats and offices. The Football Building is also new. The Parking Deck name has changed, w-, we used to say Parking Deck in the Athletic Complex and as a request by Athletics it no longer says Athletic Complex, but we want to keep the parking deck on there because we never know when we're going to need a parking deck and w-, we have already, um, remediated the parking decks, uh, that we're building now, so we want to keep them on there. And the Tennis Center that was to be located on the main campus, Athletics has now removed from its program, so it comes off. The only other things in this section The Facilities and Safety building name change and the Wet Teaching Lab and Expanded Stem facility name change as well. The second form in your packet is lovingly called the BOB-1, because that's what the state calls it. And, um, the changes on the, w-, t-, what this form does for us is, anything that you saw that we might have to do with debt, we now have a separate form that we have to report to them on things that might be done with debt. So, this looks like a really long list, and, and this could be a holy cow moment, for the trustees, but it shouldn't be because this is not something that they was going to do all of these things, this is kind of a just in case list. It allows us to be able to do these things should the opportunity arise, and should you as trustees, um, determine that we have t-, the need to do that and the feasibility of doing that. So, it does come back to you before we would actually take, um, these actions, but, uh, this allows us to be able to do that. Very strategic actions, again we've removed the same things for the same reasons we removed and you'll see the same items that we've added, um, from the, uh, initial form. And the last form this year has a little more interest to you than it sometimes would. This is the BOB-2 which is, um, this is what gets us the funding to be able to operate and maintain our facilities, once we own these facilities. Uh, we've removed the items that have received funding, so those are the ones that are crossed off in red. That's the Downtown Campus Building 1, the Institute for Hospitality and Healthcare at Lake Nona, Creative School, Library Expansion, Creole, the Center for Public Safety, uh, the Hazardous Materials Building, Arts Complex 2, and Business and Professional Women building. So, those all received approvals and we are expecting those funds to come in for the next year. The next few items are a bit problematic and that's why I'll say that this is more of an interest to you this year. So, starting with the Florida Advance Manufacturing Research facility at 81,750 gross square feet,

Speaker	Dialogue
	the Optical Materials Lab addition, the Library expansion Phase 1, Trevor Colbourn Hall, and this is an added space because of the combo, um, it's a 135,600 square feet. The Costal Biology Station and Partnership 4, another large one, 92,529, um, gross square feet. Those, um, had legislative approval for funding, but we did not get the funds, so we are putting them back on here. They told us we could not, um, assume funding and that we could not, um, double count, so we are putting them back on here until the state tells us otherwise making sure that we, that we keep those in there, um, in the forefront of their minds that we do need funding for those facilities. The last are the ones that were added, yes sir [*simultaneous speaking*].
UNIDENTIFIED SPEAKER	Hey, guys, just for clarification, when you say funding, you mean funding capital or operations maintenance?
KERNEK	These are plant operations maintenance, these are funds to operate and maintain these facilities that's what's on this sheet. [*simultaneous speaking*].
UNIDENTIFIED SPEAKER	So, we are seeing them both on the red we have received…
KERNEK	So, the red, we received approval and we're getting the funding
UNIDENTIFIED SPEAKER	[*simultaneous speaking*] full disbursement.
KERNEK	…and we're getting the funding.
UNIDENTIFIED SPEAKER	Full disbursement, the full amount?
KERNEK	Yes, we received what we asked. Mm-hmm.
UNIDENTIFIED SPEAKER	OK, thank you.
KERNEK	And the funding for plant, operation and maintenance is determined by a formula. Right now that formula only includes, um, the square footage and the type of facility it is. And once a building receives plant, operations and maintenance funding, that funding never goes up, so that's been something that…a challenge for us. So, if you look at our older buildings, um, such as the Library, it's funded, it was funded as base, so it didn't even have separate funding for operations and maintenance and separate for utilities. It was just part of a lump of buildings up until 1997, all the buildings were lumped together and you got a base funding. So, in calculating what we have in that base, that Library is funded at about $3.84 a square foot for all operations, maintenance and utilities and the building is not just used 40 hours a week, which is the formula w-, would have given them 40 hours a week. That building is used about three times that during a week. So, um, now you understand some of the challenges we had and why we have a growing deferred maintenance. You heard me talk before about deferred maintenance, and you'll see it again today in the status of projects. So, um, once a building receives [*background coughing*] plant operations and maintenance funding, that funding never goes up. And right now we're sitting with a little bit of difficult time on these buildings that are coming due, especially the Florida Advance Manufacturing Research facility that's going to be coming online, the

Speaker	Dialogue
	Partnership 4 building that we have already acquired, um, and the Trevor Colbourn Hall is not yet online yet, so that's not quite a problem at this point.
MERCK	Can I interrupt just for a second? And that's, t-, what Lee just talked about [*shuffling papers*] has been an area of concern for all of the, uh, universities, in the state university system and it keeps coming up in, uh, different discussions and being in, uh, the Board of Governors is very aware that this is an issue and a problem for the universities, so it's just a matter of trying to work through the legislator to get some, um, changes in the way that's handled. I'm not totally optimistic it's gonna happen right away, because when you look at the amount of deferred maintenance at all the different universities, it's a fairly staggering amount.
KERNEK	It's staggering.
MERCK	So, it's just an ongoing issue for all of the 12 universities. I say 12, maybe Poly Tech's not quite there yet, but…
KERNEK	They don't have a lot of deferred maintenance at this point. Are there any questions on the capital improvement plan? [*simultaneous speaking*].
MARTINS	Alright, before we take questions from the committee can we have a motion to approve?
UNIDENTIFIED SPEAKER	So moved.
MARTINS	We have a motion? Do we have a second?
UNIDENTIFIED SPEAKER	Second.
MARTINS	We have a motion and a second. Questions from the committee?
MARCHENA	Uh, Chairman, I have a question, this is Marcos.
MARTINS	Go head, Chairman Marchena.
MARCHENA	Um, Lee, um on the, um 5-year fixed capital improvement plans, uh, under the request from non-state sources, um, there is a listing for UCF downtown Campus Garage 1 for $15,300,000 dollars, that is lined out in red and then right below it is a UCF downtown Campus Garage 2, for the same amount. Can you explain those two entries?
KERNEK	Yes sir, u-, um, [*clearing throat*] the one that is crossed out is t-, the first garage that has already been noticed to the state, so we are allowed to take that one off. The second one gives us the ability to build a second garage, um, should t-, the, um, UCF determine that this is the way we need to go or we need to add a garage and the trustees vote t-, to do that. So, that just gives us the ability to build a second garage should the opportunity and feasibility, um, come together.
MARCHENA	A-, and we would anticipate that we would need to do that in conjunction with the opening of the first building downtown?
UNIDENTIFIED SPEAKER	No.
KERNEK	No, um, Chairman Marchena that's not, uh, what we were looking at, this just gives us the ability at some point in the future to be able to do this. So, again, we've noticed the first one and we can take if off now, because w-, we've told them that we are doing this. It-, by putting

Speaker	Dialogue
	something on this list, it allows us, um, should we make strategic decisions to do certain things, [*background noise*] it, it allows us the ability to do that. If things are not included on this list and something presents itself as an opportunity, we can't go forward, because the first thing they'll say is, "well that wasn't even on your capital improvement plan" or "that wasn't on your 10-year master plan". So, we try to include anything that might, um, be feasible, so that it gives, uh, you as trustees the flexibility to, to take advantage of those opportunities.
MARCHENA	I, I understand that, I'm, I'm just, uh, questioning whether that should be listed at the 2017-2018, uh possibility.
KERNEK	So, on the, um, request from non-state sources including debt, we usually don't, uh, we usually don't spread those out over the 5 years, we just put them all in the first line. When you see above the Rosen Storage Shed and Rosen Educational facility, those are the two that we did move out to 18-19 because we know that, um, those are not likely to happen in this fiscal year and then those at the, towards the very bottom of the list where we have dates, um, for some of the items that were also on PECO, we put them in the same place as we put them on PECO, but those for which we have no idea when they might be funded, we stick them all in the first year.
MARCHENA	OK, um, I just, I just want to be clear that, that construction of a second garage downtown would require an additional prior approval by our Board. Correct?
KERNEK	That's correct.
MARTINS	That goes for every one of these new items on this list. Is that not right Lee?
KERNEK	Well, up in the PECO list, if something, if the State approves the funding….they might, remember in May every year I come back to you and say, "this is our budget for the year"…this is…
MARTINS	Right.
KERNEK	…and really it's what the State approves for funding is your budget for the year, so that's when you see those again. Um, so any…
MARTINS	[*simultaneous speaking*] But in terms….
LEE KERNEK	of the items that the State approves will come back to you at least on, on that May timeframe to say here is your budget for the, for the upcoming year.
MARTINS	But in terms of the request for non-state sources, every one of these new items has to come back before the Board to be approved.
LEE KERNEK	They would.
UNIDENTIFIED SPEAKER	OK. So, for, for clarity, we're not approving any action or any funding, we're just approving them to be on the list, on the capital plan
MARTINS	So, that we're alerting the State, right? That these are potential projects that the Board may ask for approval at a later date.
KERNEK	That's correct for anything below.
MARTINS	Right.
LEE KERNEK	The ones on the PECO list, and CITF are ones we are asking them…
MARTINS	…to approve.
LEE KERNEK	…to fund. Mm-hmm.
MARTINS	…and fund.

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KERNEK	Mm-hmm.
BILL MERCK	And, and just to add to it, if, if we don't have them on the list and an opportunity comes up, we're probably looking at least a year delay to get it through the process at the State, so this is trying to preempt a year's delay, minimum, should something present itself to us.
KERNEK	And the other thing that I'll be doing probably in the next, um, maybe not the next Facilities and Finance, but the one after that is I'm going back to the ca-, uh, the Campus Master Plan that was approved in November and modifying that to reflect anything that we've changed on here so that they can't then say that something wasn't on our Master Plan either. So, we go back and re-look those things as we make changes as well.
MARTINS	Trustee Walsh.
WALSH	You had, uh, [*clears throat*], I think mentioned the third, the third list includes projects whether or not, like develop and financing would come into play or not they land on the list.
KERNEK	This could be anything that, that has a public/private partnership, that could be anything, any non-state source. It could be something that a donor gives us the funds to be able to do, it could be the public/private partnership [*simultaneous speaking*]
WALSH	…so.
KERNEK	…it could also be debt.
TRUSTEE WALSH	For example the way we supported the hotel, the campus hotel, with development funding, a, a … [*simultaneous speaking*]
LEE KERNEK	…it was on
WALSH	…new project like that would be on here, [*simultaneous speaking*]
KERNEK	Yes, we put the hotel on…
WALSH	…until it's decided to… [*simultaneous speaking*]
KERNEK	…and one of the things about, that we actually talked to the Board of Governors staff about that, because it was, um, originally it wasn't thought to be a public/private partnership, it was thought to be a land lease. And at that time, we talked to the Board of Governors staff and said "do we put this on there?" They felt it prudent to put it on there because then it notices the State that we're doing it, it doesn't look like one of the universities is trying to hide something, we put it right out there for them to see it.
WALSH	Now, the, the whole, the total of all 3 lists is $2.4 billion. Is there, is there any process of looking at, you know, what's a sustainable, affordable Capex Budget for the university from all sources tied into the Operating Plan [*coughing*] and then our growth in enrollment that's projected already in the Strategic Plan, that there's a sense of, by the Executive Team, what-, what's an affordable level of the Capex Plan? Do we have a, do we have a feel for that?
MERCK	Let-, let I can, let me start, and um, you, the two of you can add to what I am about to say. It-, it ties in a way when somebody asks [*coughing*] us, um, what's the, um, debt capacity of the university and well there's not really a debt capacity for the university as a whole *per se*, what we look at are the pieces of the university that generate revenue. So, in parking services for an example, they might be able to

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	afford more construction because of the revenue stream coming in, the amount of reserves they have and everything, than maybe the health center could, and that-, so each of these revenue-producing pieces of the university have their own ratings on the bonds that they issue and their own debt capacity. So, it's a-, it's that, that's the way that goes. So-, and we do look at our needs, for an example, as we're going through the strategic planning and we look at the growth on campus of uh, students, we look at-, for housing for an example, we'll look at the market around us to try to determine what the demand is for housing, what our, um, filling of our, our housing is-, and, and we, we go through a calculation, do we need to add more on campus or is the private sector taking care of it? Because when we're going into a 30 year debt, the last thing we want to do is end up with empty housing on campus, so we're very conscience of that. When we're looking at hiring additional faculty for an example, then we'll look at the facilities which we've been doing over these last couple of years, do we have adequate facilities to receive these faculty, particularly in the research area and the answer, recently, has been "no we don't". So, some of the money that might have gone in the next go round for additional faculty will go to help provide facilities for those faculty. So, there's, there's a number of different segments in that question that you were asking that we look at, depending on…
WALSH	…piece by piece.
MERCK	Yeah, piece by piece, yeah.
WALSH	So, there has been in the process of reviewing this, Dr. Whitaker, President Hitt, yourself, Bill, have called out, potentially already called out some projects that were submitted by departments?
MERCK	[*simultaneous speaking*] who?
WALSH	…or was it simply a list of everything that was submitted?
MERCK	Um, no, we-, we'd looked at what-, what the university believes is the real need
KERNEK	We did remove some…[*simultaneous speaking*]
BILL MERCK	…I mean, there's, there's ideas that bubble up every day.
KERNEK	We did remove some [*simultaneous speaking*] projects this year that were, that were requested, um, and we're meeting with the Provost.
WHITTAKER	Uh, just to add to that, we-, since we've approved the Strategic Plan, we have quite a bit of more clarity on our next 5 year trajectory, it's one of the things the Budget Committee, uh, is initiating, is an exercise to projectile enrollment growth, faculty growth, which we have a pretty good sight on and then capital needs to support that, um, at that point we become very opportunistic, you know, in how those are best funded because it's a-, it's a complex portfolio of capital needs and, and ways of funding…
MERCK	[*simultaneous* speaking] Uh huh
WHITTAKER	…those are modern auxiliary, PECO and some of that we just can't…control, so we put up our priorities on the PECO list but if our needs, you know, exceed their, um, ability to fund then they shift to other sources.
MERCK	Yes, that's a really good way to put that, I wanna to…, can I elaborate

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	just a little bit on that.
WHITTAKER	Yeah.
MERCK	Um, internally we know what our needs are, I mean, we-, we may be bursting at the seams in some area that's really critical for us and we look at the State's capacity or ability, or willingness to fund some of those things with PECO money and if they're not willing to do it, and it's critical to us, then we try to figure out some other way to make it happen, whether it's a-, a P3 which is not likely if there is no revenue being generated or if there is some internal sources that we can use, or if there is some internal sources that we can pledge against a debt to get those facilities that we feel are mission critical. So, being a public institution we'd like to get State money for those things, but if that State money's not forthcoming, we feel bound to try to figure out some way to make it happen.
WHITTAKER	This also, uh, as one of the sources that's feeding the um, um, Capital Campaign Plan, the Ignite Plan, so the priorities there will match up with, uh, strategic priorities.
MERCK	This is a good discussion because it ties back into these multiple ways of listing our request. You know, we first have it up there for PECO for the State to fund, but if they don't we want to have our Plan B and our Plan C listed and get authority to move on one of those should we need to do it and if we have the way to do it and you approve it. We don't want to just put all of our eggs in that one basket of the State will take care of us.
WALSH	So, there's not, at-, at this point, there's not yet an integrated value that ties to the Operating Plan, and the Strategic Plan for Capex in the same time horizon?
MERCK	[*simultaneous* speaking] I think it…
WHITTAKER	That's correct…
MERCK	…it, it's fluid.
WHITTAKER	Yes.
WALSH	I mean, it's, it's not necessarily $2.5 billion.
MERCK	[*simultaneous speaking*] uh huh
WALSH	It, it probably is something else, probably else.
MERCK	[*laughter*] a lot less.
WALSH	[*simultaneous speaking*] Probably less.
KERNEK	[*simultaneous speaking*] A lot less…
WALSH	Do we-, do we not have a process of declaring what that would be, overall?
MERCK	Um, I-, I think if you wanted to, you could probably go back to, like on PECO and look at the first say 3, 3 items on there, maybe 4 and that would be our truly critical list. And then you'll see some variations on some of those same items and other ways of financing them, if that state part doesn't come to pass, but you'll see like, uh, Lee said, trying to get some money to take care of what we already have is really important to us.
WALSH	…and like the first line item gets at the deferred maintenance issue. [*simultaneous speaking*]
KERNEK	…it does, when, when we get those dollars, that's exactly how those

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	dollars are, um, expended.
WALSH	Not all of what we need, but a decent bit.
KERNEK	Correct.
MERCK	...and then, and then the interdisciplinary research, that's been delayed funded by the State, so we've taken some of our own resources to get started on that, and if they can, and if they will fund some of that, that's going to be greatly budget relieving for us, but if they don't we feel, that we have to move forward on it, we, we can't um, meet our mission needs if we don't have some of those facilities in place. So, and then as you go further down that list, that PECO list, those are things that are less critical to us at this time. Later they could become critical as some of those programs might grow.
MARTINS	So, in essence, I mean all 3 of these categories, actually 4, um, are listed in priority order?
KERNEK	No.
MERCK	No.
KERNEK	The PECO list is in priority order [*simultaneous speaking*]
BILL MERCK	That one is…
KERNEK	…we do have the other state sources in a rank order once you get down to the non-state, um, sources, it's just a list, there's no priority order to that.
WALSH	…and do we have some other list that categorizes the priority of those projects?
MERCK	Some of those were more opportunistic, right?
LEE KERNEK	Yes, they're, they're pretty much opportunistic.
MERCK	If, if somebody comes up with the money and says we'd like to fund this, great. If they don't, probably won't happen.
KERNEK	There used to another piece to this, that was the Cortelis Match piece, where we knew if donors were going to be providing funding and that we were asking the State for a match to that funding. That program, um, is no longer in place and there's a lot of money still sitting out there waiting to be funded because when the program quit providing dollars, there was still a lot of universities with, with things out there. We actually have some funds sitting there waiting for that, so if the program ever comes back, then those will be the priorities for State match and then they will also be prioritized.
WALSH	So, the last, the third category, on the page, the uh… [*simultaneous speaking*] request from other than state sources, or the Ignite, Ignite process and then maybe developer funded, invested projects.
KERNEK	It could be developer, it could be donor, it could be a public/private partnership, and it also could be debt and then I'm required, anything that could be debt, I'm required to put that then on the next form, which is the BOB-1.
WALSH	Ok. Is the Ignite…the aspiration for Ignite doesn't really get close to the billion 2, um, so that we're, we're looking at debt, we're looking at, um other financing.
KERNEK	Right.
WALSH	The medical, uh, the concepting for the hospital is imbedded in the list?

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KERNEK	We have one piece that starts to move toward that, we do not have anything that, um, is specifically hospital. We do have the outpatient center and that's a non-state sources including debt, it's probably the bottom of the first page of that, so it is the outpatient center that starts to move toward that, um, again when we did the educational plant survey, the College of Medicine did present, um, some items that are clinically related and, uh, all of those are the only things we got denied in our educational plant survey, because they won't pay for patient treatment, they will pay for teaching students to do patient treatment, but not for actual patient treatment, so those have to go into the non-state sources and we have just started to put those things on here.
MARTINS	Dale, this list doesn't necessarily address the Strategic Plan that has just been approved. Is that correct? I mean in some case it does obviously, but has the strategic plan been overlaid onto this list yet?
WHITTAKER	Um, I would say the, as the strategic plan was developing, it informed the priorities on this list, uh, so it's probably at an 80% level, but from a formal review, we're just starting that.
MARTINS	So, we would assume that the other 20% could come up with, in next year's approval process, a project or 2 or more onto this list that's not here currently. [*simultaneous speaking*]
WHITTAKER	…..[*inaudible*] or maybe a shift in priorities..
MARTINS	Right.
KERNEK	As the provost is working on the operational components of the strategic plan, the Action Plans related to the Strategic Plan, we will certainly be, um, wanting to work with him, both from the facilities perspective and from the sustainability prospective for that strategic plan, so that will help us then to, to put the right numbers in here.
MERCK	…Well and, in, in [*simultaneous speaking*]. You know part of that 80%, for an example, the Strategic Plan calls for us to grow our research activity, and so one of the top lines on the, on the PECO request is an inter-disciplinary research building, so those…, there's a lot of things that are married, but that will…, it is a, it is fluid and it'll continue to change.
MARTINS	[*simultaneous speaking*]…to evolve.
MERCK	Evolve is a good way to put it.
WALSH	But if we don't list them in this fashion, in accordance with the BOG requirements, we run the, run the risk of a new project that comes up that could be waiting a year…
MERCK	Right. Exactly.
WALSH	…to get on the list to get evaluated… [*simultaneous speaking*]
MERCK	Exactly.
WALSH	Opportunistically. So, the motivation is to list as many things as possibly can be conceived.
WHITTAKER	[*simultaneous speaking*] Yes…being on the list, exact…I'm sorry. Being on the list is probably as important, or more important, as the prioritization other than the PECO list. The other piece, uh, for-, so donors can shift the priority, through opportunity, uh, there is also political opportunity, so occasionally, uh, someone, as we've seen with downtown, takes a, uh, specific interest in a project or partnership 4,

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	and when the opportunity to, um, get, um those elevated from a legislative point of view, uh, occurs we want to make sure they're on the PECO list, have the BOG funding and can be there for funding.
KERNEK	That happened with all of our partnership buildings, um, because they were on the list. They may not have been in our top priority, but they were on the list, so then when, when there was some support for those they were able to move up because they were on the list.
MARTINS	Other questions from the Committee? [*inaudible simultaneous speaking*]
WHITTAKER	Those were good questions.
MERCK	Yeah, very good.
MARTINS	OK, hearing none, all those in favor of approving the 5 year Capital Improvement Plan, uh, signify by saying aye.
MULTIPLE SPEAKERS	Aye.
MARTINS	Any opposed, like sign. Motion carries. OK, we turn now to FFC-4, the razing of Building 18. Lee?
KERNEK	Well, Colbourn Hall is a 42 year old building. And it does have a number of issues. Um, I've delineated most of those issues in your packet, but from an economic perspective, um, we're suggesting at this point that we do not, um, complete a renovation of the building, but that we demolish that building and put those funds into expanding, um, the new building, Trevor Colbourn Hall. And the way I looked at this, um, with the rising construction costs, the building that was going to be $15 million dollars to renovate is now about $17.8 million dollars to renovate. And we have a firm, Ises, that does our facilities [*coughing*] condition assessments for us. They're a national firm, they do most of the state university system facility condition assessments. In 2014, they, um, they gave us a replacement value of, uh, Trevor Colbourn Hall of $20.7 million dollars. So, that would mean that the renovation of it is 86% of the replacement value. Um, also in 2014, we, we have a firm Asset Works that does our computerized maintenance management system and they also do, um, evaluations for insurance purposes for us. Asset Works gave us an actual cash value which is all the State allows us to insure. The actual cash value on that building is about $7.5 million dollars. Which means that the renovation is 157% of the actual cash value of that building. So, it makes , um, fiscal sense at this point to demolish that building and to move the money into Trevor Colbourn Hall.

The program for Trevor Colbourn Hall, uh, including all of the folks in, um, Colbourn Hall, and some additional, um, folks that are going, that we are going to be moving into a renovated Colbourn is about 108.8 gross square feet. By, by doing the demolition of Colbourn, we can had another 26.8 gross square feet, uh, to that of, um, useable, occupiable, open space. So, that allows flexibility for the program as well and gives us additional space. Um, I did have, uh, there some [*coughing*] folks that have expressed, um, life safety concerns with Colbourn Hall. So, we've done several analyses of the building to |

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	ensure that it can be safe for people to occupy during the 2 year period that it will take to construct Trevor Colbourn Hall. Um, Ises, uh, the report that Ises does for us is a 500 page report and they didn't find any life safety, um, concerns in that report, identify any needs, um, for life safety correction at this point in time. So, they didn't find any, um fire or life safety issues. They did find i-, issues with the exterior of the building including the damaged brick work, the water intrusion that we pointed out to you. The HVAC system isn't, is not just outdated, but it's, um, it's an inefficient design. It was designed of course 40, 40 years ago, 43 years ago and it needs a complete upgrade. It is, um, at its end of its useful life. The main electrical switch board and even the backup electrical is also at the end of its useful life. And, um, many of those parts can't be located at this point in time. We've been buying parts on EBay and doing a lot of the work, um, keeping that building operational ourselves. So, um, it is showing signs of structural damage. We also did an, an indoor air quality study. We've done several of those because people felt that the indoor air quality in that building was bad. So, the latest one we did was April 7th of 2016. Uh, we did sampling for the most common air contaminates, um, in offices/classrooms. We also did a visual inspection. Uh, we looked at the 5 air handling units. Um, and what we found…we huh, we looked at all the occupied a-, areas for a relative humidity, air, carbon monoxide, carbon dioxide, particulate matter and temperature. And we took samples in 38 areas. Um, so the air testing indicated that all areas are within university standards for all the air parameters tested. Um, we also looked at particulate matter and it was significantly lower than the concentrations recommended by the national ambient air quality standards. The carbon monoxide was reported very low compared to the US national air quality standards. Carbon dioxide was in a concentration of less than 1,000 parts per million. Um, indicating that the HVAC system is bringing in an adequate amount of fresh air thanks to all of your, um, facilities operations staff. Um, and the visual inspections in the mechanical rooms were, were what showed the air handling units were clean and that the filters are in good condition. We've been…what, what I call is a shore-it-up initiative. So, we, um, within the facilities operation team, have a small group that goes out to shore-up, um, the issues. And we've but a heavy concentration on this building to make sure the quality of life, um, is, uh, at least adequate…..hopefully a little better than adequate for the next couple of years as people occupy the building. Um, according to the administrative rule, um, the trustees have the authority to raze buildings, but if it's over the, over a million dollars, we do need an educational plant survey. And we have, um, started that process by asking the Board of Governors staff for a spot survey. I've also talked to the Board of Governors staff and they view this, um, the possible demolition as favorable because, um, and a number of other

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	universities are looking at some of their other buildings in the same way. So, it avoids some of the capital costs that you would put into the old building [*coughing*] and it also reduces your overall deferred maintenance, um, liability. So, um, that's what I have on the table before you today.
MARTINS	OK, before we take questions, can we have a motion on FFC-4, the razing of Building 18?
UNIDENTIFIED SPEAKER	So moved.
MARTINS	We have a motion. Do we have a second?
UNIDENTIFIED SPEAKER	Second.
MARTINS	We have a motion and a second. Questions from the Committee.
MARCHENA	Uh, Chair, I have a, I have a question not so much about the demolition but I just want to understand on the new construction , Lee, for the Trevor Colbourn Hall. Um, what was the original budget for construction and if we increase this by…what will, what will be the new total square foot-, footage as well as the new, uh, construction budget?
KERNEK	So, um, the budget originally for Trevor Colbourn was $23 million and that's total project cost. That's not a construction budget. You can usually assume about 80% of a total project cost for construction, 10% for planning, design, uh, upfront and 10% on the backend for, uh, furnishings and equipment. So, the total project on Trevor Colbourn was $23 million and the total project on, um, the renovation was $15 million. Um, so, we would add the two together for the $38 million and what we would end up with on square footage is about 130-, 136,000 gross square feet of, of, of offices, classrooms and again, that's on the status of projects, but it's got mostly faculty offices. It's a little bit higher, um, grossing factor than I would normally like but that's because there are so many offices, uh, in the facility.
MARCHENA	So, wha-, what was the original square footage…
LEE KERNEK	We were, um orgin-…
MARCHENA	…of Trevor Colbourn Hall?
KERNEK	…we were…wi-, with today's construction dollars, we were looking at getting about 75,000 gross square feet or 76,000 gross square feet on Trevor Colbourn Hall based on today's dollars.
UNIDENTIFIED SPEAKER	The existing…
MARCHENA	Thank you Mr. Chairman. Thank you Lee.
KERNEK	The existing building is a little bit, a little bit more than that, but to do the total renovation we would be at $17.8 million on that.
WALSH	Lee, how old is the building?
KERNEK	It's 42 years old.
WHITTAKER	What is…
KOONS	Good morning, this is Keith.
MARTINS	Good morning Trustee Koons.
KOONS	Hello. Speaking as someone who had an office in Colbourn Hall for 20 years, [*laughter*] I can enthusiastically vote to raze it. [*laughter*] And, I, I've said this before but it's worth saying it again, uh, I think we have a,

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	a great fundraising opportunity here to, uh, because I think faculty and staff would line up to pay money [*laughter*] to take a sledge hammer to it [*laughter*].
MARTINS	Well thank you for that insight Trustee Koons [*laughter*].
WHITTAKER	My I ask a couple of questions? What is the level of deferred maintenance that will be removed by razing this building?
KERNEK	Well, we would normally look at the, um, the cost to renovate being that level at this point. So, that the total renovation is $17.8 million dollars.
WALSH	So, that's a component of our 203 million deferred maintenance…
MERCK	Right.
WALSH	…deficit if you will related to Colbourn Hall. Is Col-, is Colbourn Hall a poster child for the issue of deferred maintenance?
LEE KERNEK	It is.
WALSH	What happens with deficiency in the funding for deferred maintenance is we wind up needing to raze buildings because we haven't had the money to maintain them.
KERNEK	That's correct. And what you see, um, so there's a company named Sitelines that also does some work for us and looking at, um, our comparative, um, position of our facilities with all other universities in our peer group. The Board of Governors has now mandated that all the universities will use that and we were already, um, moving for-, we were already in Sitelines. And in looking, um, at the deferred maintenance issue, they will tell you that once you exceed 40% of your facility, um, um…
WALSH	Replacement cost.
KERNEK	Yes. Then you ought to consider just razing the building because otherwise you're just continuing to sink money into a building where you could be using that money for taking care of [*coughing*] [*inaudible*] newer buildings' deferred maintenance and trying to keep them, um, healthy.
MERCK	Yeah, I would like to just add, what you said is correct, I mean, um, deferring maintenance as to the speed at which a building declines. In this particular case there's also a second factor and that has to do with the quality of the original construction and the design of the original building. And this was not one of our finest ones. So, that's one of the reasons we-, on new buildings now, try to put a lot of emphasis on what's going into it, how's it being built to get the maximum life and, uh, out of it with the, um, the, the deterioration going a lot slower than if it were constructed poorly.
KERNEK	Right, the, uh, one of the worst periods in history for, um, design and construction was the period right after World War II. And so we had a number of those buildings that are kind of in that sort of…so starting after World War II and going into the 60's, that's where they say that's the worst construction ever and so we have a lot of those buildings that were, you know, built in that early 60's kind of time frame.
MERCK	Or late 60's.
KERNEK	And so we also have, um, a UCF design and construction standards that we put in place. Uh, many people don't like me because of those,

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	because they're a little tighter than the, um, just the Florida building code. But the reason we have those design and construction standards is so that we can have a longer life-cycle to our facilities. So, a developer who might be building something and thinking he's going to be flip it in 5 years, might not be putting in the kinds of standards in that we are. But we know that we are going to have buildings that are 50 years, a 100 years. And if you saw your capital improvement, um, plan with all the renovations on there and not getting the renovation money to do them [*coughing*], much less sufficient PO&M or utilities infrastructure, uh, funds to maintain those facilities.
MERCK	Yeah, and I don't want to, um, uh, belabor this too long, but the period Lee's talking about, and I saw it in the late 60's and the early 70's, you know, classical architecture buildings have a top, a middle, and a bottom. Well, in that time period, people were skipping the top and the bottom and just sort of a middle. If you see these buildings that are flat to the ground and then, um, and then they're just flat on the top with cheapest roof material you can put on it in a rectangle, that's some of the stuff that was built and it just hasn't hel-, held up and during those times too, there was a lot of defective copper that went in. There was, um, just a, a…the building codes weren't…
KERNEK	[*simultaneous speaking*]…missing brick ties, um, and mortar that wasn't really made to standard…
MERCK	People didn't understand that sometimes it seems like they didn't understand that water runs downhill [*laughter*]. And, they just seemed to ignore that.
KERNEK	And, and, and through, um, brick. [*laughter*].
MERCK	So, anyway, I, I didn't mean to belabor that but that was bit of a rough time period…
WALSH	[*simultaneous speaking*] no asbestos issue, nothin-, nothing like that has emerged.
KERNEK	We have, um, asbestos work, um, on a number of our buildings, maybe it's before I got here so about 15-20 years ago, we did a lot asbestos work. We do still have asbestos in some of our buildings where it doesn't matter so, unless you're actually starting to demolish, so we, you know we've got some things…
WALSH	[*inaudible*] …not friable.
KERNEK	…we will need to wet when we start demolishing, but we, um, don't have asbestos issues in places in that building that are affecting, um, uh, you know, quality of life. [*simultaneous speaking*]
BILL MERCK	No friable asbestos.
TRUSTEE WALSH	We're probably at the design life of the building in any event, 42 years.
MERCK	But, you want the design life to be a least 40. But a lot of buildings, you want to go 100. [*simultaneous speaking*]
KERNEK	We've been designing for 50-100 knowing that we, we probably have to.
MARTINS	Lee, a couple of questions. We're confident that we can safely operate Colbourn Hall for the next couple of years.
KERNEK	The structural engineers have told us that we should have no problem

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	operating, um, Colbourn Hall for the next couple of years. Um, any of our facilities, if they took a tornado would have an issue. And even your new facilities would have an issue with a tornado. If you had a category 4, um, hurricane, might also have impact to some of our facilities including this one. But hopefully we would not have people residing in the facility, um, during hurricanes. Other than that, the structural engineers said that we should be able to live in this building for the next couple of years.
MARTINS	OK, and then, we all know the shortfall of facilities that we have based on the demand. Um, are we confident that we are replacing all the program that we would have had in the renovation of Colbourn Hall into the addition of Trevor Colbourn Hall?
KERNEK	We looked at the possibility of additional shell space so maybe renovation what would could of Colbourn and then having shell space. But we couldn't get usable shell space within the budget. So, what we're going to end up is what I call the cold dark shell that has no ceilings, that has no finishes, it has no electrical drops, it has no real, um, you know, extra ventilation, it doesn't have anything. So, it's unusable, um, cold dark shell until such time as you sink more money into the facility. So, it really was not, um, space that wo-, would help us with our program needs right now, but we did look at that.
WHITTAKER	So, the, the, um, loss of programing was driven by the increase in construction costs. So, originally, we had conceptualized it a little bit of additional programing in the 2 buildings and we've had to leave some of that behind. And leave it [*coughing*] where it is intact.
KERNEK	One of the things we used to see come out of construction costs was about a 4% per year, um, construction cost increase. Um, during the economic downturn, things were flat and we actually did pretty well getting things below cost, when we had money to do them. And um, now it's rising at about one half to one percent per month, so, we're, we're using on average about an 8% construction cost increase and we fell right within that on this facility.
WHITTAKER	So, we decided to keep that, uh, budget boundaries rather than the program boundaries.
WALSH	So, the timing of this activity, the razing is tied to the approval of new Trevor Colbourn Hall. There's not a specific date for the, projected for the razing of the building?
KERNEK	So, actually, um, the trustees approved, um, the new Trevor Colbourn Hall some time ago and we're looking at just increasing the square footage of it as part of this. But it does…the timing for the razing, uh, really now, would have to, um, be, work around the educational plant survey which is a spot survey. So, I'd have wait for 5 years till the come. I can request a spot survey, the team comes and looks at it and says, yes, it's in demolishable shape. And then, um, and, and, I will be bringing a, a, a memo to the trustees to sign, to send to the State, sa-, verifying the educational plant survey asking for the demolition. [*simultaneous speaking*].
MERCK	But we're not…
LEE KERNEK	…but we're not stopping, um, the design on the Trevor Colbourn Hall

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	while we're waiting for that.
MERCK	And we won't raze the building before the new one's built…[*simultaneous speaking*] [*inaudible*]
UNIDENTIFIED SPEAKER	[*inaudible*]
WHITTAKER	The pragmatic day is the date of occupancy.
UNIDENTIFIED SPEAKER	Right.
WALSH	Ok, but the study would occur fairly soon…. Next month, next 6 months?
KERNEK	We just, …[*simultaneous speaking*] we just have to ask that they come and the-, they tell us when they can come, but they've been, the-, they're usually pretty, um, good about coming, you know, within 30 days I'm thinking.
MARTINS	So, just a procedural question, I mean, we're not only voting to raze Colbourn Hall here, but we're actually voting to increase the size of Trevor Colbourn Hall in the project there, is that correct? Or do we not need to do that? [*simultaneous speaking*].
KERNEK	Well, you don't really need to vote to increase the size of Trevor, so, Trevor Colbourn Hall but you do need to vote to, um, for the razing of Colbourn Hall.
MARTINS	OK, so, explain to me then the reason why we don't have to vote to increase Trevor Colbourn in light of the fact that we had already approved a certain program for that building.
KERNEK	So, normally the trustees don't approve the building program. The building program goes through the Provost, goes through Mr. Merck, it goes through, um, Provost Whitaker, and it goes to the president and he has the authority that has been given to him by the trustees to approve the actual building program.
MARTINS	But, i-, in essence, we are increasing the budget for Trevor Colbourn?
KERNEK	Well, well, we're taking the budget from Colbourn Hall [*simultaneous speaking*] and putting it on Trevor Colbourn Hall and that also includes the demolition.
UNIDENTIFIED SPEAKER	Right.
MARTINS	OK, and I just wanted to make sure that procedurally, you know, we don't actually need to vote on increasing the budget of Trevor Colbourn? OK. For those on the phone, everybody is shaking their head no, so,
MERCK	That's a good point [*laughter*]
MARTINS	OK, and then just other related question, do we have any other building that is coming down the line that is coming down the line that is in a similar situation to Colbourn Hall?
MERCK	[*simultaneous speaking*] We've talked about Wayne Densch
KERNEK	We have a couple. So, uh, Wayne Densch has already been approved by the, um, educational plant survey that was on its full survey cycle. Um, that's building #39. So, it's over there by the Rec and Wellness Center. You have a 38 and a 39 together. We had them look only at 39 first and they have approved, um, demolition for

Speaker	Dialogue
	building 39. Um, they've not yet looked at building 38 which is, again, the building that's tied to it. We, uh, are working with athletics to ensure that all of the people who are in 39 have a space to work before we demolish, uh, building 39.
ALEX MARTINS	But that would be the only other case that, that is sorta in the same similar deteriorating situation as Colbourn?
KERNEK	We have a couple of buildings that, um, need a full renovation. And it, we'll talk about it again in the status of projects, but remember, um, Bill, we asked for funds to totally renovate Engineering 1 and Mathematical Sciences. And what we received rather than the $15 or $16 million dollars we needed at the time which of course is growing, the 15 or 16 we needed at the time on one of those buildings and the 19 we needed on the other was we received 3.6 and 3.8. And because things are often funded with planning money and then construction money and then FF&E, we said well, that's a little odd because it's not the 10% we would normally see on planning the designs. It's a little larger than that. But it's also not enough to do our renovation. And the Board of Governors staff had thought that we would be getting the, the next iteration the following year and we did not. So, it continues to be on our list for the State, um, to fund the rest of those renovations. So, those were our next 2 buildings that thought really needed a full renovation. And you'll see some others also on your capital improvement plan, same age, kind of, um, maybe not as, as a bad a state as, uh, Colbourn Hall, but also needing full renovation.
WALSH	Does sale lease back analysis get involved with this where potentially a developer could take the arbitrage of rehabilitating the building, provide it back to us for a new purpose, repurpose it.
MERCK	Um…
WALSH	…getting to looking at that as an option to simply raising it.
MERCK	We-, we've looked at some of those kind of things but the problem for us on those is buildings is they're non-revenue producing, so there's no real incentive for a developer to get involved in something they've put their money in but can't get a return on.
WALSH	Would need to be repurposed.
MERCK	Yeah, yeah. It would have to be repurposed into something that generates revenue, and, and we don't have any obvious option for that [*simultaneous speaking*].
UNIDENTIFIED SPEAKER	Wouldn't be obvious…
MERCK	Mm-hmm.
MARTINS	Any other questions from the committee? OK, hearing none, uh, all those in favor of FFC-4, the razing of Building 18, signify by saying aye.
MULTIPLE SPEAKERS	Aye…aye [*unanimous*].
MARTINS	Any opposed? Motion carries. Ok our next item is informational item number 2, the status of UCF projects. Lee, you continue to have the floor.

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KERNEK	Alright. Because I love it.
MARTINS	[*laughter*]
KERNEK	So, since we started construction in 1967, UCF has now grown to 163 buildings on the main campus. There's currently $170 million, uh, in design and construction. That's $136 million in major projects. Those are greater than $2 million and $34 million in minor projects.

In today's presentation I'm going to give you a snapshot of where we compare with other state universities in space needs, our PECO funding requests, and our funding allocations, and then I will give you a big picture overview of our, um, campus projects, briefly discuss a few little minor projects and deferred maintenance, and then move on to some of the major projects. And the order of that is loosely, um, in the order of completion, so some recently completed, those in design, those, um, those in-, that are in construction and are almost done, and then in the design and then concept.

We have 18 major projects right now and, uh, we have 380 minor projects. That's a construction value of $2 million or less.

So, um, at one of our, our last facilities and finance committee meetings the committee requested the comparison data on the State University System Educational Plant Surveys. There are only two or three universities that are surveyed every year so it's not exactly a direct comparison, but it does provide a snapshot of the space needs across the state. And I did highlight, um, um, bold UCF so you can see where we are in comparison to the others.

We were just surveyed in 2015 and the survey was validated at the last Board of Governors meeting. Um, so, we got surveyed under the current guidance. We understand that the guidance is changing and the space needs categories are changing. Uh, that has already been written, I, I understand but we were surveyed under the latest, uh, under the current guidance which is supposed to be a benefit for us.

Another item requested by the committee is the comparison of the SUS PECO requests. So these are the dollars that we requested every year on those capital improvement plans that you saw. The data on this side comes from 2015 submission and shows the 5-year requests from each of the 12 universities. Uh, the submissions are revised yearly, um, and the focus each year again is on the first 3 years. [*pause*]

The slide… |
MARCHENA	Lee, uh, um, forgive me, Lee?
LEE KERNEK	Yes, sir.
MARCHENA	Uh, excuse the eruption. Back on slide 2, does OF mean "office"?
KERNEK	Yes, and there's a, there's a little table down below. So we have, uh, CL is classroom, TL is the teaching lab, ST is study, RL research lab,

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	AE is auditorium and exhibit, the IM is instructional media, SS student and academic support, GY is gymnasium, and, uh, CS is campus support, uh, services. And so…
MARCHENA	Yeah O-, OF was missing from that one I just wanted to confirm that's what it was.
KERNEK	It is. It is offices, yes sir.
MARCHENA	Thank you.
KERNEK	Mm-hmm. [*papers shuffling*]
WALSH	This is percentage of space needed versus presently under [*inaudible*].
KERNEK	That's correct.
WALSH	[*inaudible*] the institutions have.
KERNEK	And those are based on the, you know the, remember, we did the big educational [*background coughing*] plant survey. It's an entire book where they look at all of our spaces, they look at the space types, they look at the space we already have. They actually go out and look at space we already have and then they evaluate our needs based on our, um, academic program and, um, what we, uh, what we're trying to do as a university and the numbers of students and that kind of thing. They have, um, tables and formulas for that and this shows the percentage of the needs that are met. [*pause*]

So, um, [*background cough*] I've showed you the one that has our, um, requests. And then the next slide, um, is our PECO funding comparison. Shows a snapshot of the states approved capital funding for the past three years. [*pause*]

This one I threw in there. You didn't ask for it, but it's a bonus. So… [*laughs*] Every year in addition to the approved capital funding, the state has what it calls a Maintenance, Repair, Renovation and Remodeling, um, category. We sometimes refer to it as minor projects and that, that doesn't mean the $2 million and, and less. It's just called minor projects, things that money they give us to do certain things. They also call this the sum of the digits. So their formula on this, this money is separate from utilities infrastructure or PO&M funding. And the formula is only based on age and square footage. And I put this out there because, um, that, that's why you can see, you see UCF being a little low in comparison to the others, because it doesn't include things like space utilization, numbers of students, hours of operation. [*pause*]

While major projects make up the majority of the cost of our projects—that's the $136 million versus the $34 million in minors—we currently have 380 minor projects and 18 major projects. So minors actually make up 95% of our project count. And they're managed by a staff of 11 project managers, um, and 3 assistant associate directors. The project managers each have an average of 35 projects that they're managing at any given time.

This map illustrates where we're currently working, which is pretty |

Speaker	Dialogue
	much all over campus and other campuses.
	We'll run really fast through the types of minor projects. So these are some of the examples of the large minor projects, and they might range from re-roofs to space upgrades to, um, HVAC replacements. Some, um, medium-sized minor projects include things like repair and maintenance, those, the tech fee upgrades that we do every year, rust remediation, some life safety upgrades.
	Examples of some small minor projects includes things, such things as office build outs, campus signage, uh, equipment replacement type projects. And the next one shows, um, small projects that are under $50,000. And they actually make up about 50% of our project workload by project count. And they include such things as doing access control, um, electrical upgrades, camera installations.
	The 2012 Ises Report, um, concluded that we had over 203, uh, uh, over $200 million in deferred maintenance needs. So we were trying to buy that down using any carryforward funds we had. So that might be plant, operations and maintenance funds, that might be any operational funds. So [*beep*] every year I've been trying to sweep all of the, those funds within, um, the facilities and safety area and buy down, um, the deferred maintenance. So we have bought it down to about $146 million doing that over the last several years, but the problem is that as the state, uh, as the buildings continue to age there's deferred maintenance going up at the same time I'm trying to buy down. So we're probably at about $163 million right now in deferred maintenance.
WALSH	Lee, given that, why doesn't that entire amount, that $163 million reside [*beep*] at the top of the priority list, as opposed to $70 million?
KERNEK	What, um, the state allows us to put in utilities infrastructure is, um, is spreading out funds over a, um, five year period.
WALSH	Oh.
KERNEK	So what I, when I had Sitelines coming in here and looking at this - and I have presented all of this to the Board of Governors staff - I opened UCF's books [*beep*] with y'all's permission, I opened UCF's books to the Board of Governors staff for the board of governors to see what our deferred maintenance comparisons look like, our whole Sitelines report, which is one of the reasons they've asked the other universities to do this. And what it shows is if you were to have no deferred maintenance, if you really, if your goal was to have no deferred maintenance at any given time we would need, over and above our operations and maintenance funding, we would need about $46 million a year.
	But you do defer some maintenance on purpose. So, um, there are things like maybe a roof, um, would normally last me 25 years and I say, "You know what? I can get another five years out of this roof and put the money into something else that, that I might need to put the

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	money in or save the money to do other things that we might want to do." And so I might defer that roof for five years or I might decide to coat that roof or something so that I can get an extra ten years out of that roof. So there are some decisions you make that, um, are to defer maintenance. In which case your target deferred maintenance should be about $25 million a year. But in talking with the board of governors staff they really don't feel that it's, um, going to be something that's going to be approved—
END OF TRANSCRIPTION	