



UNIVERSITY OF CENTRAL FLORIDA
COLLEGE OF ENGINEERING
AND COMPUTER SCIENCE

11/8/2016

Outline

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- *CECS Current State*
 - *Enrollments*
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 - *Research*
- *CECS's 2020 Promises*
- *USNews and World Report*
- *CECS's Moving Forward Plan*
- *New UCF Budget Model*
- *Specific CECS Interests*



UCF's Strategic Plan

Our Impact, Our Promise

- **Our Impact**

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

- **Our Promise**

- *Harness the power of scale to transform lives and livelihoods*
- *Attract and cultivate exceptional and diverse faculty, students and staff who collective contributions strengthen us*
- *Deploy our distinctive assets to solve society's greatest challenges*
- *Create partnerships at every level that amplify our academic, economic, social and cultural impact and reputation*
- *Innovate academic, operational, and financial models to transform higher education*



UCF's Strategic Plan

Goals that Guide us

Goal 1 (Undergraduate Education):

Offer the best undergraduate education available in Florida.

Goal 2 (Graduate Study, Research):

Achieve international prominence in key programs of graduate study and research.

Goal 3 (International Emphasis):

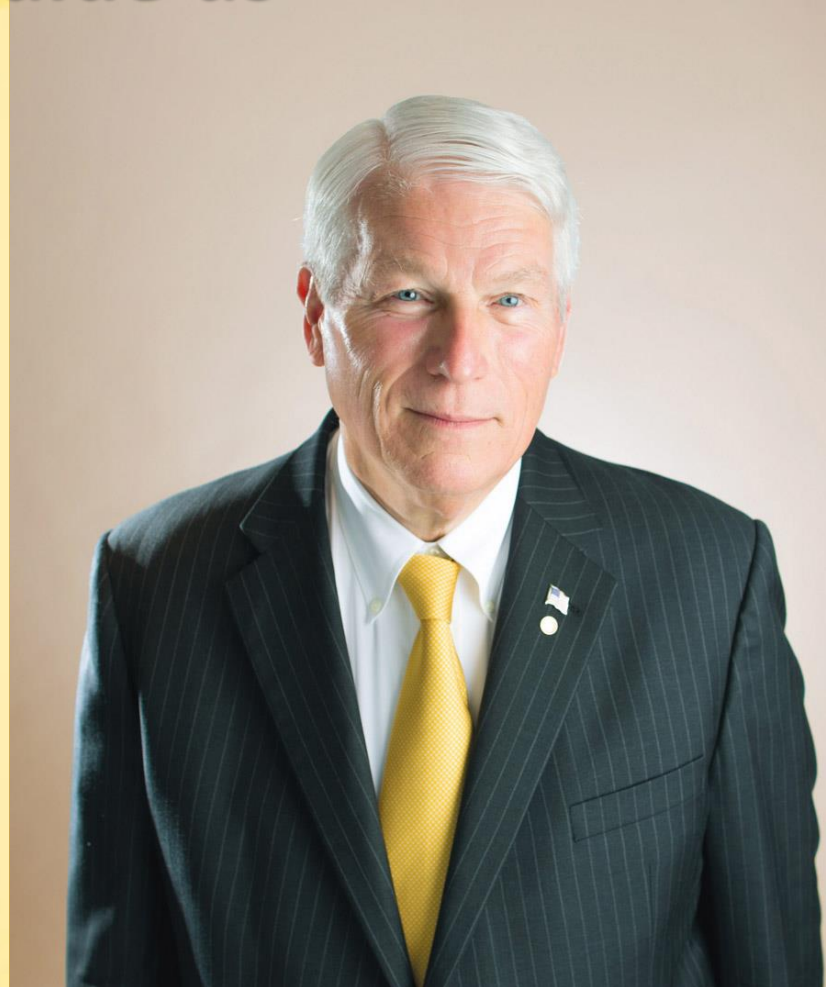
Provide international focus to our curricula and research programs.

Goal 4 (Be Inclusive and Diverse):

Become more inclusive and diverse.

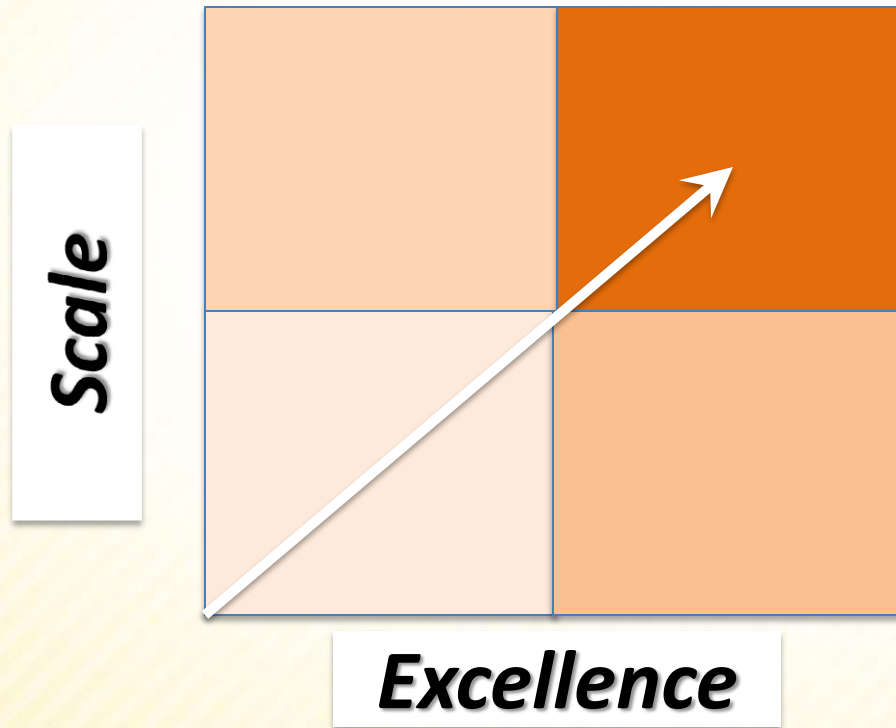
Goal 5 (Partnerships):

Be America's leading partnership university.



UCF's Strategic Plan

Impact = Scale x Excellence



UCF's Strategic Plan

Metrics, Strategies

Key Metric	2015	2021
First Year Retention Rate	89%	92%
Six-Year Graduation Rate	70%	75%
Number of Graduate Students	8,029	10,000
Post-Doctoral Research Appointees	52	200
National Academy Members	1	6
Percentage of Tenured or Tenure-Track Faculty	62%	65%
Research Awards	\$133M	\$250M
Endowed Professorships and Chairs	64	80
Alumni Giving Donors	15,000	30,000
UCF Foundation Endowment	\$151M	\$175M
Other Metrics: % of population with BS degrees	2 nd , 9 th	1 st , 5 th
Other Metrics: GPA, SAT of FTICs/# of National Merits Rank	4.0;1850/11	4.0; 1870/Top 10



UCF, CECS Enrollments

CECS 2016: 8,838 (UG), 786 (MS), 630 (Ph.D.) , 2118 (Juniors), 3,521 (Seniors), 5,639 (Juniors + Seniors)

CECS 2015: 8,238 (UG), 706 (MS), 619 (Ph.D.) , 1992 (Juniors), 3,462 (Seniors), 5,454 (Juniors + Seniors)

Discipline	<i>Fall 2016</i>	Fall 2015	% Change
Arts & Humanities	5,785	5,377	7.59
Business	8,920	9,018	-1.09
Education	5,420	5,757	-5.85
CECS	10,276	9,573	7.34
Grad Studies	146	109	33.94
Health & Public	10,241	9,893	3.52
Medicine	3,529	3,422	3.13
Nursing	2,788	2,736	1.90
Optics	223	205	8.78
Hospitality	3,075	2,934	4.81
Sciences	11,595	11,053	4.90
UG Studies	1,629	1,698	-4.06

Underrepresented UG: 3,157 (34%)

Female UG: 1,497 (17%)

International UG: 268 (3.15%)

Underrepresented G: 249 (32%)

Female G: 321 (22.3%)

International G: 620 (43.1%)



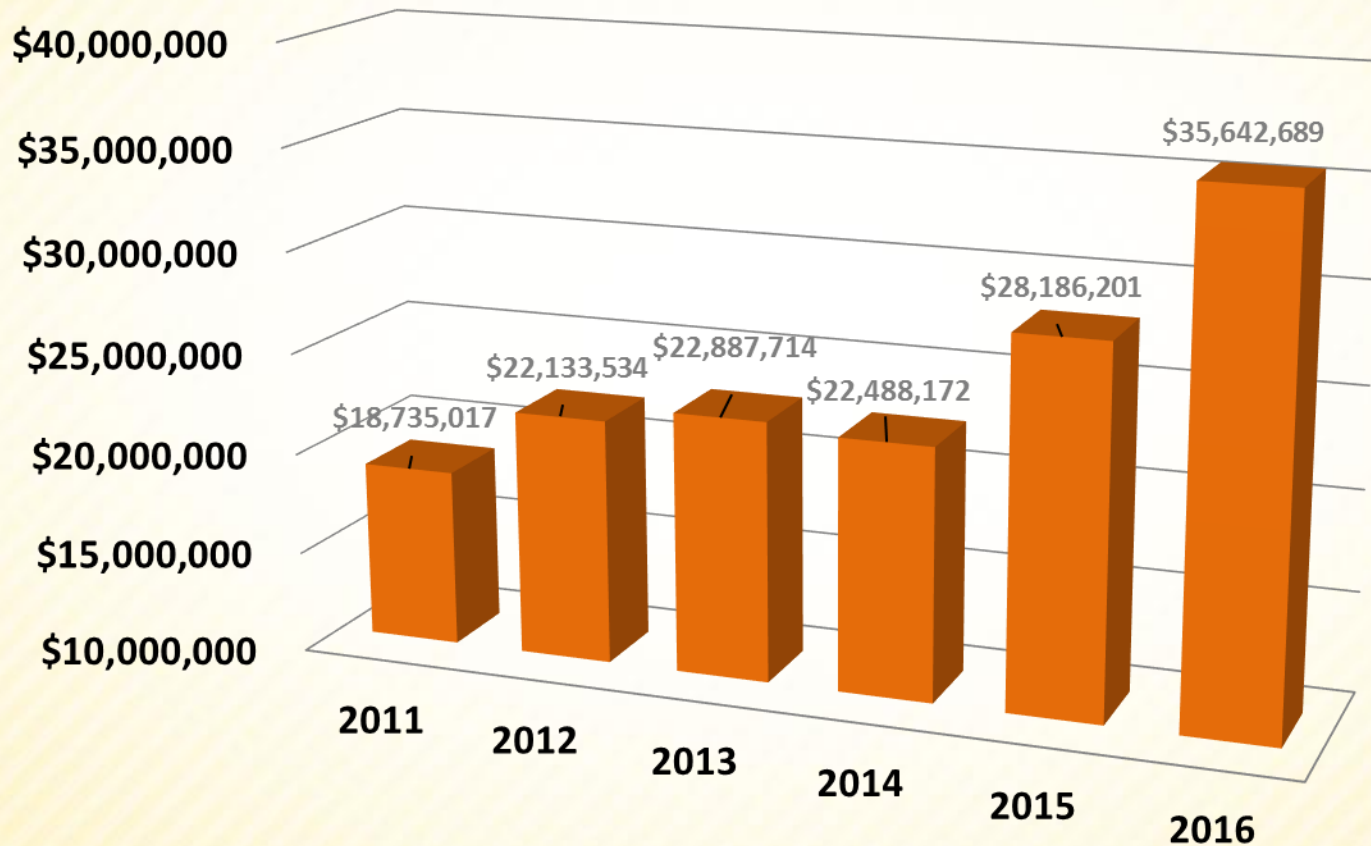


CECS Degrees

Degrees	14-15 AY	15-16 AY	Difference
BS	1239	1356	+7.9%
MS	328	388	+18.3%
Ph.D.	77	89	+15.6%
Total G	405	477	+17.8%
Total UG+G	1644	1833	+10.3%

CECS Research Funding Profile

New Funding



CECS 2020 Promises

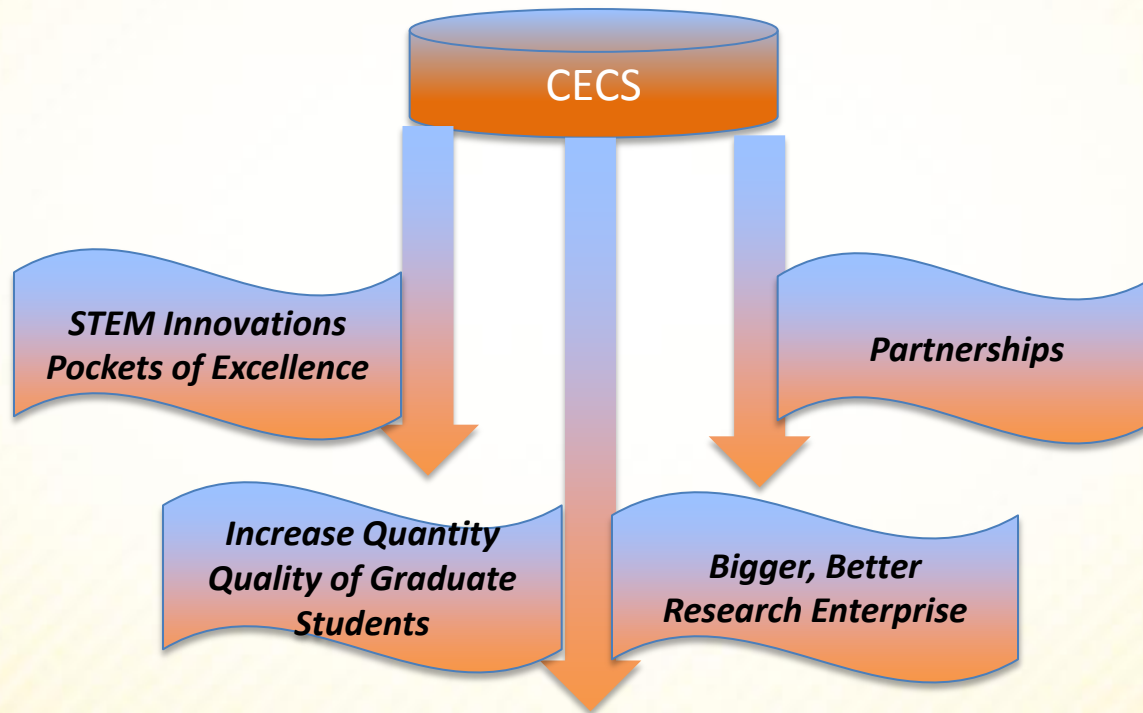
Measure	2015	2020	Difference
MS Numbers	700	1000	+43%
Ph.D. Numbers	600	750	+25%
Percent Thesis + Dissertation	32%	35%	3%
1 st Year FTIC Retention	88.4%	90%	1.6%
FTIC 6-Year Graduation	67.4%	72%	4.5%
Annual New Funding	\$24M	\$40M	43%

US News and World Report

Metric	Ind. Score	Compo. Weight	UCF's CECS 2016/2017
1. Mean GRE Quantitative Score	x .675	0.1	#99 (160)/#97 (159)
2. Acceptance Rate	x .325		#99 (43.0%)/#97 (38.3%)
3. Research Expenditures (2-year average)	x .6	0.25	#79 (\$32M)/#81(\$31M)
4. Expenditures Per Faculty (2-year average)	x .4		#79(\$250k)/#81(\$247k)
5. Peer Assessment		0.25	#87 (2.4)/#96 (2.3)
6. Recruiter Assessment		0.15	#106 (2.7)/#86 (3.0)
7. Ph.D. Student/Faculty Ratio	x .3	0.25	#58 (4.1)/#54(4.2)
8. MS Student/Faculty Ratio	x .15		#58 (2.5)/#54(2.6)
9. Percentage NAE	x .3		#58 (0.80%)/#54(0.80%)
10. Ph.D.'s Granted	x .25		#58 (83)/#54(77)
Ranking 2016/2017			85/82

CECS's Plan Forward

The 3-Legged Stool



CECS's Plan Forward

CECS T/TE Hires

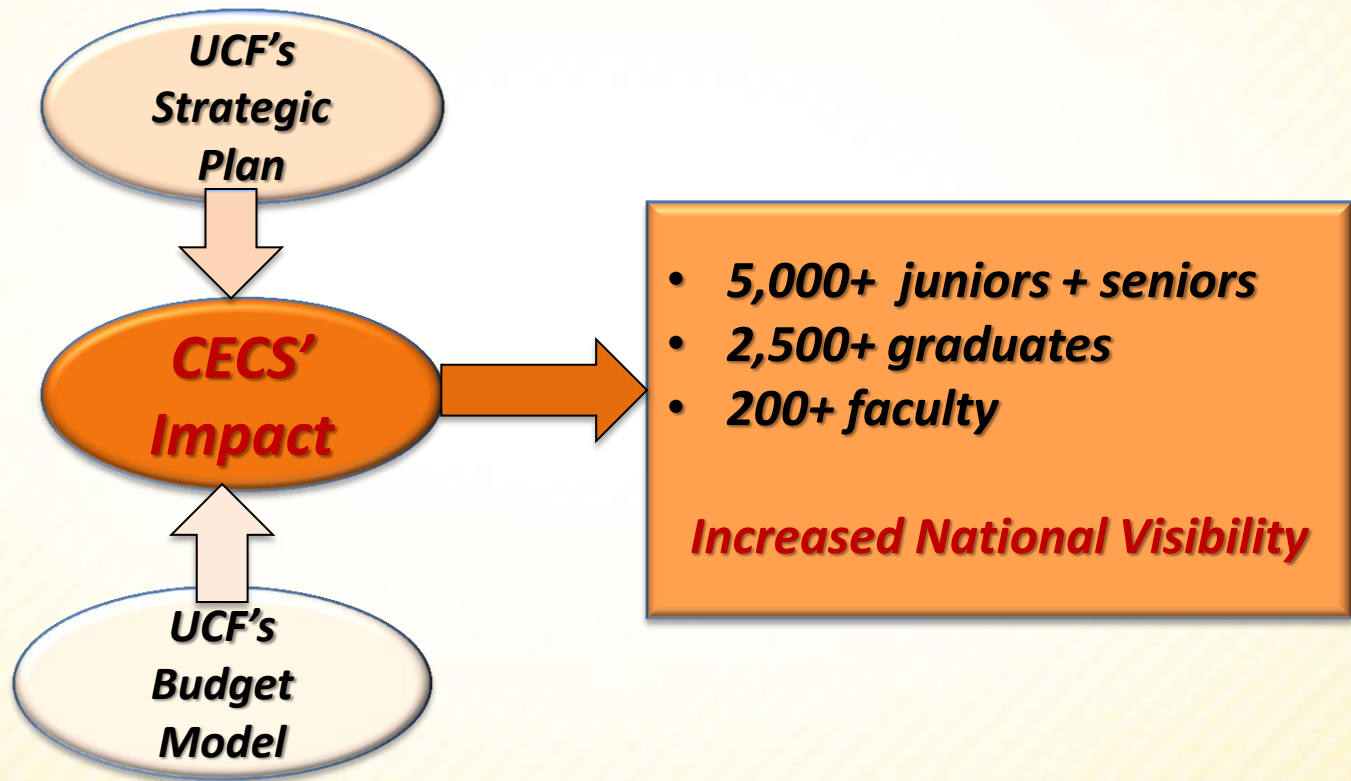
	Fa 12	12-16 New	Fa 16	17-18 New	Total by 18	New 12-18
T/TE	127	45	149	41	186	86
I/L	18	17	28	0	28	17

Notes

- **T/TE:** Tenure and Tenure Earning Faculty
- **I/L:** Instructor and Lecturer Faculty
- **Fa 12:** Faculty at beginning of Fall 2012
- **12-16 New:** Faculty Hires that arrived from Fall 12 to Fall 16 (the reason that 127 + 45 is not equal to 172 T/TE (it is equal to 149) is that there were faculty terminations (faculty left or retired) during the same time period; same for I/L numbers)
- **Fa 16:** Faculty at beginning of Fall 2016
- **17-18 New:** Faculty hires expected to arrive by Fall 18 (includes all commitments made by the Provost (estimates for FCI 1.0) and replacement hires promised by Fall 18)
- **Total by 18:** Expected Faculty at the beginning of Fall 2018
- **New 13-18:** Number of Faculty Hires that arrived from beginning of Fall 12 to the beginning of Fall 2018 (6 year time-period)

CECS's Plan Forward

Impact = Scale x Excellence



WORKLOAD

Workload = Increase or Decrease in SCH. Funding will be distributed over two years, to smooth budget impact.

- **\$95** (approximately 70% of base tuition) per UG SCH and **\$288** per Grad SCH
- SCH will:
 - reflect teaching assignments (by September 30)
 - include funded and unfunded SCH (including regional web courses and UCF Online)
 - exclude market rate, cost recovery, and GAA

PERFORMANCE

Available funding will be allocated in three areas of performance:

1. Degree Efficiency

- Improvement and Excellence Points (the best of each)
- Allocated to top 5 based on beginning of year base budget

2. Endowed Faculty Support

- \$40,000 per \$1 million of new endowed funds

3. Research Growth

- Increase in research awards (minimum \$350,000)
- Allocated to top 5 based on share of Top 5's total growth

CECS Specific Pursuits (DAB Fellows)

- *Retain Quality TE Assistant Professors and Instructors Lecturers (I/L)*
 - *Introducing the **DAB Faculty Fellow** and **DAB Instructor/Lecturer Fellow**; these are 3-year, \$5k, per year, awards*
 - *Intent: To **retain** outstanding junior faculty and committed instructor lecturers at UCF*
 - *Faculty Fellow (5 awards):*
 - *Strong scholarly and funding record*
 - *Received national/international recognition for their research*
 - *Instructor/Lecturer Fellow (1 award):*
 - *Strong teaching record*
 - *Contributed to UCF's national visibility through their teaching, service accomplishments*
- **Help from DAB: Raise funds for 12 more of these awards**

CECS Specific Pursuits (Endowed Professorships)

- CECS has **hired 45 faculty** in 2014-2016
- CECS plans to **hire another 40+ faculty** in the next 2 years
- Some of these faculty are **regular hires**, others are **Faculty Cluster Initiative** hires for: Cyber, Power Systems and Smart Grid, Genomics and Bioinformatics, Coastal Research, Catalysis and Propulsion, and Smart Prosthetics
- The effort to bring quality junior and senior faculty at UCF will benefit significantly from the availability of endowed professorships
 - Junior Professorships (\$250k)
 - Senior Professorships (\$1M+)
- **UCF's new budget model matches the endowed support**
- **DAB Request:** Provide support for **endowed professorships** in CECS

CECS Specific Pursuits (Infrastructure Support)

- CECS has **hired 45 faculty** in 2014-2016
- CECS plans to **hire another 40+ faculty** in the next 2 years (2017-2018)
- Some of these faculty are **regular hires**, others are **Faculty Cluster Initiative** hires for:
 - Cyber,
 - Power Systems and Smart Grid,
 - Genomics and Bioinformatics,
 - Coastal Research,
 - Catalysis and Propulsion, and
 - Smart Prosthetics
- As we try to recruit the best 40+ faculty, our efforts will be more successful if we enhance the infrastructure support allocated for these hires
- **DAB Request:** Provide **infrastructure support** (cash donations, hardware (in-kind), software (in-kind)) to enhance the infrastructure support of FCI cluster efforts

CECS Specific Pursuits (Pockets of Excellence Support)

- *CECS has demonstrated (last few years) that it encourages creativity and innovation amongst its student groups. Examples of this creativity and innovation are:*
 - *UCF Programming Team (30 years of excellence)*
 - *UCF Cyber Defense team (4 years of excellence)*
 - *Limbitless Solutions (2 years of excellence)*
- *These pockets of excellence do not only influence their student participants but also encourage excellence for other students and student groups within CECS and UCF*
- **DAB Request:** *Support these student teams in terms of **cash donations** (scholarships, travel), as well as **in-kind support** (hardware, software, other)*

>>> Opportunity Starts Here



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