College of Engineering
State of the College
Fall 2016
First and Foremost,

Thank you to all of our faculty, staff, and students for another outstanding year in which the quality, size, and impact of our programs have continued to grow.
Purpose of Today’s Presentation

① Provide an update of the state of the college, quantitatively and qualitatively

② Identify areas of strength, but also areas of weakness, threats, and opportunities

③ Field your questions and concerns

④ Provide you with detailed input to stimulate additional conversation (slides will be posted on Dean’s page website)
In Memoriam

Joe Hogan, 7th Dean of College of Engineering
Overview
- People Update
- College Trends
- Space Plan Update
- Challenges, Threats, and Opportunities
- Campaign Update
- Q & A
“The more we strive to secure a common good corresponding to the real needs of our neighbors, the more we effectively love them. Every Christian is called to practice this in charity, in a manner corresponding to his vocation and according to the degree of influence he wields in society.” - Pope Benedict XVI
Mission Statement:
At Notre Dame, out of love for our neighbors, we are engineering a peaceful, healthy, and sustainable world.
Energy

Human Health and Well Being

Economic Development

Sustainability & the Environment

Personal and National Security
Our New Assistant Dean for Student Development, Kerry Meyers
New Assistant Professors

Seongkyuh Im
AME

Stanislav Gordeyev
AME

Svetlana Neretina
AME

Matthew Webber
CBE

The College of Engineering
at the University of Notre Dame
New Assistant Professors

Thomas O’Sullivan  
EE

Patrick Wensing  
AME

Matthew Zahr  
AME
New Professors

Nicholas Zabaras
AME

Merlin Bruening
CBE

Jane Huang
CSE
New Named Professors

Nitesh Chawla
Freimann Professor

Martin Haenggi
Freimann Professor

Bill Schneider
Brosey Professor
New Named Professors

Nicholas Zabaras
Hank Professor

Diogo Bolster
Freimann Collegiate Chair

Tengfei Luo
Dorini Collegiate Chair
New Named Professors

Alex Taflanidis
Freimann Collegiate Chair
Winners of Major Young Investigator Awards

A big shout out to Rick Billo, Ken Christensen, Sarah Nerenberg, and all who helped
Winners of Major National Awards
Joyce Teaching Award Winners
College of Engineering Teaching Award: Mike Seelinger
Winner of 5th First Source Commercialization Award: Gary Bernstein
Total Undergraduate Enrollment

YEAR

# STUDENTS

Soph-Sen
First Year

The College of Engineering at the University of Notre Dame
PhD Degrees

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<th>YEAR</th>
<th>PhDs GRADUATED</th>
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Research Expenditures

YEAR

RESEARCH EXPENDITURES ($M)

- 45
- 40
- 35
- 30
- 25
- 20
- 15
- 10
- 5
- $
Summer Study Abroad Update

The College of Engineering at the University of Notre Dame
Summer Study Abroad Update

- Financial Aid
  - 36% Received FA in 2013
  - 48% Received FA in 2014
  - 46% Received FA in 2015
  - 55% Received FA in 2016
Summer Study Abroad Update

- URM Participation
  - 21% in 2014
  - 23% in 2015
  - 24% in 2016
- New Spring Semester in Rome
Employment Update

Employment Survey at Graduation, May 2015

- Full Time Job Accepted: 58%
- Offer, Not Yet Accepted: 23%
- No Offers: 18%
- Other: 1%

The College of Engineering at the University of Notre Dame
Employment Update

Employment Survey February 2016

- Full Time Job Accepted: 62%
- Offer, Not yet Accepted: 19%
- No Offers: 18%
- Other: 1%

The College of Engineering
at the University of Notre Dame
Employment Update

Employment Survey April 2016

- Full Time Job Accepted: 65.8%
- Offer, Not yet Accepted: 19.2%
- No Offers: 12%
- Other: 3%
Space Update – Fitzpatrick Flood

Key Points in October 6 Memo from University Architect

① Created several new drains on east side of building
② Determine which drains plugged
③ Develop new drainage plan, including regrading, new drains, and drainage redundancy
④ Explore new ways of storm water management
⑤ Evaluate possible new modes of landscaping
Space Update – McCourtney Hall

McCourtney Hall – Opened in July 2016

- 10+ COE Faculty
- 5+ AOV Hires
- Space for new hires
- Attractive and functional
Space Update – Additional Possibilities

Haggar Hall
Grace Hall
Flanner Hall

Research Building #2
- Bioengineering Department
- Biophysics, Applied Biosciences
Space Update - Backfill

Fitzpatrick Backfill
- CSE
- CEEEES
- Computational and Data Sciences and Engineering
- AME
- Undergraduate Learning Lab

Stinson-Remick Backfill
- EE Circuits + Nano
Challenges, Threats and Opportunities

① Research Expenditures are flat

i. Federal funding is flat or slightly decreasing in certain programs

ii. We are still learning how to succeed at large interdisciplinary center and institute funding

iii. Some signs of promise: recent NSF ERC site visit CISTAR, more faculty pursuing large scale funding, StarNet

iv. It will be difficult to get additional funding for space with flat research expenditures
Challenges, Threats, Opportunities (con’t)

② Our faculty are being aggressively recruited by others

i. This past year, we lost Joan Brennecke to UT Austin, Laurel Riek to UCSD, Elaine Zhu to Wayne State; and we nearly lost several others

ii. The cost of retention is high and not always supportable because of fairness and precedence issues
We are struggling to increase our women faculty and faculty from under-represented groups

i. In the history of Notre Dame’s COE, we have hired 29 women faculty (since 1989), and 14 of these remain (11 hired in the last 6 years)

ii. We currently have two faculty in our College from under-represented groups
Challenges, Threats, Opportunities (con’t)

④ Bioengineering awaits an infusion of resources (space and faculty lines) before we can launch

i. We would need an additional 4 faculty lines and adequate space, combined with our current faculty interested in bioengineering

ii. We are still waiting for a major gift for ECRC2

iii. We have commitments of three of the four faculty lines
The Provost’s Priorities this year (and presumably in the near future) focus very heavily on collaborative initiatives

i. AT&T Hybrid MS Degree

ii. California Initiative

iii. New Faculty Chairs for Mission and Interdisciplinary

iv. Notre Dame International

v. Diversity and Inclusion

vi. Transformative Ideas
Campaign Updates

- Remick Fellowships
- Schleckser Family Unit Operations Laboratory
- Wanzek Family Professor of Engineering
- Joseph Ahearn New Gift
- Mike Szomjassy Gift
- Many others in process
- Council Campaign Participation: > 50%
Strategic Priorities
Graduate Fellowships
Strategic Priorities
Recruit Great Faculty
Strategic Priorities
Equipment/Laboratory Funds
Strategic Priorities
Endowments for Faculty Excellence
Questions/Comments?