Aspiration

The College of Engineering at Cornell University will be widely recognized as a top five three engineering college in undergraduate and graduate studies.

Enabling Goals:

1. To recruit, retain and enable a diverse community of exceptional faculty, students and staff
2. To educate undergraduate and graduate students to become global leaders
3. To be world leaders in important areas of research
   a. to sustain and expand our leadership role in: advanced materials; complex systems, network science and computation
   b. to be the premier research university in the emerging areas of: energy and the environment; and bioengineering
4. To increase our interactions with industry; and create a fertile environment for entrepreneurial activities for faculty and students
Faculty Excellence

Recruitment (full set of searches this year)
- Turnover of 1/3 of faculty
- Opportunity to realign to college strategic goals
- Diversity
- Dual career
- Cornell Tech hiring

Enabling
- Onboarding, mentoring and early career development
- McCormick Engineering Teaching Excellence Institute
- Realignment of staff resources (e.g., support center proposals)

Retention
- Strategic retention packages
- Get out ahead of the external offer
- Move appropriate faculty into leadership positions

NEW EDUCATIONAL PARADIGM
Engineering in the 21st Century

Create, Lead, Disrupt, Invent

Grounded in Rigorous Fundamentals
Putting classroom knowledge to the test

Cornell’s Experiential Programs
Learning By Doing

- Project Teams (Swanson endowment)
- eLab/PopShop and eHub Expansion
- Business Minor with the Dyson School
- Engineering Leadership Program
- Product Design and Manufacturing Institute
Cornell’s Experiential Programs
Learning By Doing

Project Teams (Swanson endowment)

eLab/PopShop and eHub Expansion

Business Minor with the Dyson School (Anonymous)

Engineering Leadership Program

Product Design and Manufacturing Institute

Cornell’s Experiential Programs
Learning By Doing

Kessler Fellows Program (Kessler funds)

Communications

Engineering Learning Initiatives

...
Cornell’s Experiential Programs
New Staffing Model

230+ Tenure Track Faculty

23+ Professors of Practice (legislation must be passed by the college)
Master of Engineering

Plan to move from the Graduate School into the College

Kathryn Caggiano led a committee to look at MEng

We will invite Kathryn to a D&C meeting to discuss her findings and recommendations

Doctorate

Increase the size of the program to 5 PhD per faculty member (incoming class ~120 students)

Increase fellowships (college goal is to support every first year student on a fellowship)

Improve diversity (Sloan and Colman Fellowships)
Doctorate
Cone of Silence (shhhhh)

University Fellowships in AY14-15: 26

University Fellowships in AY15-16: 61
(Equivalent to a $50M Endowment!)
ENERGY
ADVANCED MATERIALS
COMPLEX SYSTEMS, NETWORK SCIENCE AND COMPUTATION
Institute for Computational Sustainability (ICS)
Institute for Computational Science and Engineering (ICSE)
Big Data and Machine Learning
Leveraging Cornell Tech
Entrepreneurship in Ithaca (eHub)

CORNELL TECH
Transforming a University and a City
Engineering, Technology, and Entrepreneurship are the key economic drivers for the 21st century.

PATH TO THE FUTURE

Cornell Engineering
Thrust Advisory Committees (TACs)

Proposal: 3-Person Faculty Committee

Academic Leadership for our 4 Thrust Areas

Implementing the Strategic Plan

Catalyze Faculty Groups for Center Proposals

Promote Ideas at National Level and Funding Agencies

Build Connections with Appropriate Industry (work with Abby Westervelt)

Help Guide Hiring
Thrust Advisory Committees (TACs)

Communications and Nominations
- Visit Each Department to Discuss Strategic Plan and TACs
- D&C Make Nominations for TACs
- Discuss Nominations as a Group

Work Closely with the Associate Dean for Research

Report to Directors and Chairs Annually
- Proposal Activity
- Industry Relations
- Hiring Priorities (recommendations only)

Cornell Engineering