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UNIVERSITY

College of Engineering Dean's Office

John Hopcroft
Joseph Silbert Dean of Engineering   Telephone: (607) 255-9679
242 Carpenter Hall   Facsimile: (607) 255-9606
Ithaca, NY 14853-2201   E-mail: jeh17@cornell.edu

Engineering College Council
Meeting Notes

April 23-24, 2001

The Engineering College Council (ECC) met in Ithaca on April 23-24, 2001. The following ECC members were present.

John Anderson	Bill Hudson
Dick Aubrecht	Mike Isaacson
Dale Corson	James McCormick
Tim Costello	Armando Olivera
Linn Draper	Justin Rattner
Herve' Gallaire	Beckie Robertson
Peter Giles	Sherri Stuewer (chair)
David Hodges	Dick Tucker
John Hopcroft	

This was John Hopcroft's last meeting with the Engineering Council as the Joseph Silbert Dean of Engineering. The agenda focussed on the state of the college in 2001, how it is positioned for the future, and included presentations and discussions of major college initiatives, research areas, and academic issues.

Hopcroft Overview of College
⇨Encouraging results
-Exceptional quality in applicant pool
-Good trend in research funding
-Good progress on climate issues
⇨Like the "metrics" update, but would like to expand it to include:
-Yield and SAT of enrolled class
-Retention: students, faculty, staff
-Tenure success/exit interviews
-Whenever possible use trends and benchmarking information
-Faculty development (i.e., what are we doing to get people to stay)
-Catalog of cross-college interactions?
⇨David Hodges will send Berkeley metrics
-Stanford OK as first step in benchmarking, but it may not be a particularly good match (i.e., very small undergrad. program)
⇨Good catalog of issues for future and useful introduction to issues

Provost Martin
⇨Her messages:
-Need to more thoroughly integrate engineering into University
-Revisiting "land grant" role for "mechanic arts" could increase State interest in the link between research and economic development
-Sensitive to strains between "Day Hall" and the College; need to repair that
-Demonstrated support for College with bridging funds for bioengineering
-Sees need to rebuild faculty morale in College; recognizes impact of CS move and Whitaker support
-Sees value from creation of Faculty of Computer and Information Sciences
-Difficult to ascertain if college needs more funding
⇨College and University need to collaborate on a white paper detailing a governance process for interdisciplinary programs, particularly with regard to teaching
-White paper should clarify University's strategic view of interdisciplinary areas – recognizing the practical constraints in the system.
-Issues are different for teaching and research; both need to be addressed.
-Cannot make progress if the University struggles with every problem on a "one-off" basis
-Dale Corson provided two papers on interdisciplinary issues written in the last decade
⇨ College needs to seek opportunities for established faculty to take leadership positions in University efforts; must be supported for such participation
⇨Want to hear more about mechanisms for funding among colleges; is there an option to generate clearer statement of needs?

Biomedical Engineering

⇨Good progress on a new program in biomedical engineering with would include a minor in BME, Meng and Ph.D. degree (e.g., 3 bridging lines, identification of space/location for future)
⇨Designing the curriculum with faculty from multiple colleges should be effective
-Stress the importance of integration across disciplines

⇨New "unit" should have clear reporting responsibility

⇨Some concern about university support for the Whitaker Proposal

Engineering/Computer Science Cooperation

⇨Great collaborative efforts among younger faculty; good to eliminate redundancy in classes; valuable cross-training for students

-Enthusiasm for the computer systems collaboration

⇨FCIS is a good experiment, but it needs to be decoupled from Department of Computer Science

Systems Engineering

⇨Great progress in a very valuable teaching objective

⇨Would see great value if ECE/CS students had opportunities for "non-physical" systems projects

-Recognizes the faculty's "plates are full," but the college should consider incentives for faculty participation in "non-physical" projects

⇨Would like to see Computer Science better integrated into the program

Student Projects and ABET

⇨ Projects are valuable experience for students, but need to be managed in a way to avoid excessive overhead

⇨ Need a mechanism (such as routine meeting among departments) to exchange best practices for ABET

⇨Recommend departments embrace ABET compliance steps as a tool for continuous improvement, making an otherwise onerous process more valuable

Update on Duffield Hall

⇨Pleased with evident progress in project and look forward to updates at future meetings

⇨Strongly support philosophy of sharing equipment and space in Duffield, rather than having it controlled by individual faculty or departments; modeled after good approach in current nanofabrication facilities

Applied and Engineering Physics

⇨See value in 'elite corps' of students within A&EP, but encourage efforts of the department to better define the distinction between AEP, Physics and ECE to guide prospective students

⇨Support efforts to eliminate redundant course offerings and to foster curriculum interactions

⇨Value the leadership role of faculty in A&EP in many university initiatives

Electrical and Computer Engineering

⇨Support new directions for research and faculty appointments in E&CE

⇨See opportunity for active role by Mechanical Engineering in MEMS research; need to define strategic plan for MEMS within ME

⇨Believe nano-biotechnology provides opportunity for research leadership; encourage partnerships with Veterinary and Medical Colleges

⇨By contrast, it may be too late to be a leader in photonics

Benchmarking

⇨Strong interest from Council to see existing metrics; support for more in-depth look at Stanford

⇨Additional benchmarking may be valuable (for example, with Georgia Tech or UC Berkeley) after absorbing the learnings from Stanford

Miscellaneous
⇨With growth in interdisciplinary courses and research, clear roadmaps of alternative course sequences would help freshman understand the options - especially if such a roadmap were available on the internet

Action Item:

Chairman to communicate the following message verbally to Provost Martin, followed by a letter:

The ECC is concerned about the governance of interdisciplinary efforts that cross college boundaries within the University. The ECC sees interdisciplinary efforts in teaching and research as essential to successfully address many new areas of study. The governance of these interdisciplinary efforts must be handled in a way that facilitates the efforts without creating excessive overhead. We would recommend the development of a white paper that identifies the challenges and barriers to effective interdisciplinary efforts. The white paper should also define a governance process, including administrative and personnel policies, that would support and facilitate these interdisciplinary efforts. We propose that the white paper be developed through a collaborative effort among the University and the Colleges, and we offer our assistance in this effort.