

PURDUE SCHOOL OF ENGINEERING AND TECHNOLOGY, IUPUI
Faculty Senate Meeting Minutes

FS01-6

March 19, 2002

Approved April 9, 2002

Representatives in attendance: Maurice Bluestein, Stanley Chien, Barbara Christe, Mohamed El-Sharkawy, Sally Frettinger (attending for Keith Kovach), Cliff Goodwin, Andrew Hsu, Ali Jafari, Laura Lucas, Emily McLaughlin (attending for Liz Coles), Razi Nalim, Ken Reid, Maher Rizkalla, Joy Starks, Dave Williamson, Charlie Yokomoto.

Guests: Kier Colon, Marvin Needler and Nasser Paydar.

Senate President, Mohamed El-Sharkawy, called the meeting to order at 11:06 a.m.

The agenda was adopted after changing the order of the committee reports under agenda item number five. The Educational Policy Committee gave their report first. The minutes of the February 12, 2002 meeting were approved.

Nasser Paydar presented Dean Yurtseven's Administration Report, *Attachment I*. Paydar thanked the faculty and staff volunteers involved with the seventh annual Bridge Building Contest (Sunday, February 23) and the Jets/TEAMS Competition (Friday, March 8).

Nasser Paydar acknowledged the faculty members who were recommended by the Resources Policy Committee to receive development grants as well as the faculty members who received Purdue University International Travel Grants. The faculty and staff receiving awards at the 2002 Honors Convocation were also recognized. The names of the recipients are included in Attachment I.

In staff news, Nasser Paydar congratulated Larry Hill for his selection as the 2002 Counselor of the Year in University College. Paydar welcomed two new staff members to the school. Angela Bowers joins us as the Engineering Dual Degree Program Coordinator and will split her time between the IUPUI and Butler campuses. Betty Klein joins us as the Administrative Support Specialist for the Office of Academic Programs.

The Minority Engineering Advancement Program was recognized by IUPUI as the "Distinguished Contribution Program" for diversity in 2002.

Reports from Standing Committees

Educational Policy Committee

Barbara Christe, Educational Policy Committee member, presented for senate approval, the following two new electrical engineering course requests:

1. EE 264 – Advanced C Programming (2 cr.) class 2.
P: ENGR 197 or equivalent.

Continuation of a first programming course. Topics include files, structures, pointers, and the proper use of dynamic data structures.

2. EE 440 – Transmission of Information (4 cr.) class 3, lab 3.
P: EE 301 and EE 302

Analysis and design of analog and digital communication systems. Emphasis on engineering applications of theory of communication system design. The laboratory introduces the use of advanced engineering workstations in the design and testing of communication systems.

Barbara Christe also presented, for senate approval, the following course changes:

1. CPT 242 – ASP.net (3 cr.)

Current prerequisites:

P: CPT 212 or 223 and CPT 213 or 254

New prerequisites:

P: CPT 115 or 112 and CPT 140 or 215, or consent of course coordinator.

2. CPT 254 – Systems Analysis and Design (3 cr.)

Current prerequisites:

P: CPT 140, CPT 223 and CPT 288

New prerequisites:

P: CPT 140 and CPT 223

P or C: CPT 288

3. CPT 412 – XML–Based Web Applications

Current prerequisites:

P: CPT 214 or 288 and CPT 212 or 223

New prerequisites:

P: CPT 213 or 254 and 200 level programming language.

4. CPT 436 – Advanced E-Commerce Development

Current prerequisites:

P or C: CPT 347 or CPT 329

New prerequisites:

P: CPT 312

P or C: CPT 329 or 347

5. BMET

Current course description and prerequisites:

BMET 240 – Introduction to Medical Electronics (3 cr.) Class 3. C: EET 154.

An overview of human anatomy and physiology and introduction to physiological measurements, including cardiovascular, pulmonary and applicable pressure and temperature measurements. Operation of common biomedical electronic equipment is demonstrated. On-site hospital visits expose students to modern monitoring and intensive care biomedical equipment.

New course description and prerequisites:

BMET 240 Introduction to Medical Electronics (3 cr.) Class 3: P: BMET 220 and a fundamental knowledge of electronics. An overview of medical equipment used in the hospital and other medical environments to diagnose and treat patients. Sensors and physiological signals will be explained. Equipment found in various hospital departments and medical specialties will also be discussed. Patient safety and regulations will be emphasized.

6. ECE

Current course title and description:

EE 369 – Introduction to Finite-State Machines (3 cr.) Class 3: P: EE 266.

Introduction to discrete mathematical structures and finite-state machines. Topics include foundation of discrete mathematics, groups and semi-groups, group codes in computer systems, basic models of finite-state machines, state and machine identification experiments, regular expressions, and complexity.

New course title and description:

EE 369 – Discrete Mathematics for Computer Engineering (3 cr.) Class 3 P: EE 266. This course introduces discrete mathematical structures and finite-state machines. Students will learn how to use logical and mathematical formalisms to formulate and solve problems in computer engineering. Topics include formal logic, proof techniques, recurrence relations, sets, combinatorics, relations, functions, algebraic structures, and finite-state machines.

The senate approved the new course requests and course changes.

Faculty Affairs Committee

Marvin Needler, chair, presented the committee proposal on the Policy for Peer Review of Teaching, *Attachment II*. Needler emphasized the flexibility of the policy in that the decisions are made at the department level. He added that in the policy, the Department Chair would be responsible for initiating the peer review process.

As a representative for the Department of Mechanical Engineering, Andrew Hsu stated that members of the department believe the document is premature and suggest additional review. The department points included the following: 1) Policy does not state that the peer review is required only for those using “teaching” for tenure. Members of the department question the necessity of a peer review if a faculty member is pursuing excellence in another area, such as research; 2) Policy may set a precedence; 3) Reviews through OPD or FACET cannot be considered “peer reviews” due to the fact that they cannot evaluate the content of the course, therefore the reviews should come from colleagues within the department.

Needler stated that the department determines participation in the peer review process.

Upon further review of the policy, it was suggested that word “extraordinary” in the second paragraph be replaced with “alternate”. The proposed sentence would read: “An individual case may require alternate procedures where deemed necessary jointly by the faculty member and the department unit”. Needler accepted the change.

El-Sharkawy spoke on behalf of the Department of Electrical and Computer Engineering and stated that peer reviews would place additional pressure on new faculty.

Rizkalla added that maybe peer reviews should be an option if a faculty member falls below the satisfactory level for teaching. Questions arose regarding the actual promotion and tenure document. Committee members questioned whether or not peer review was “required” if a faculty member were seeking excellence in an area other than teaching.

El-Sharkawy recommended that the committee ask the Chair of the Promotion and Tenure Committee for clarification.

The following changes to the policy were recommended and accepted. In the first paragraph the word “requires” was changed to “addresses” and the word “including” was changed to “which may include”. The new sentence reads, “The IUPUI Promotions and Tenure Committee specifically addresses documentation of peer evaluation of teaching, which may include class visits by peers, external peer reviews of materials, and peer evaluation of scholarship”. The sentence immediately following was omitted.

Needler stated that he would take the document back to the Faculty Affairs Committee and wait to hear about changes to the document from other unit committees.

Needler added that the Faculty Affairs Committee is working on the following three items:

1. Student evaluation of instruction—they've made it to the halfway mark and will bring the information to the senate for action at the next meeting.
2. Purdue School of Engineering and Technology Student Satisfaction Survey—the committee is working with Nasser and the Assessment Committee for presentation.
3. Lecturer Policy Document—passed through Faculty Council.

Reports of Representatives

IUPUI Faculty Council

Representatives to the IUPUI Faculty Council are Marvin Needler, David Williamson, and Charlie Yokomoto.

Dave Williamson stated that Chancellor Bepko unofficially announced his retirement at the March 7 Faculty Council Meeting.

IUPUI received the Hesburgh Award for the Gateway Program to Enhance Student Retention. Award recipients demonstrated excellence in the following areas: significance of the program to higher education, appropriate program rationale and successful results and impact on undergraduate teaching and student learning. IUPUI was one of four recipients of this award.

The council presented the slate of candidates for Vice President and President of the Faculty Council. Council members will vote at the next meeting.

Dean Plater's draft of concept paper is online at <http://online.iupui.edu/>. Plater states his goals of education and explains the method used to assign credit hours to courses.

With no other business or announcements, the meeting adjourned at 12:10 pm.

Attachment I

Dean's Report for March 19, 2002 Faculty Senate Meeting

Academic Programs

Our school participated in Campus Day activities on March 3, 2002. All of our departments were represented and there was a reasonably good turnout.

The seventh annual Bridge Building Contest was held on Sunday, February 23, 2002 on the last day of National Engineers' Week. Over 80 sixth, seventh, and eighth grade students joined our staff (Karen Siurek and Ben Cockrum) and faculty (Erdogan Sener, Laura Lucas, Daphene Cyr, and Brian Kinsey) to display and test their balsa wood bridge designs. American Society of Civil Engineers, Indiana Society for Professional Engineers, and the Department of Construction Technology were the primary sponsors of the event.

Joy Starks and the Department of Computer Technology hosted the state finals for high school students in the Business Professionals of America programming competition on February 22, 2002. More than 90 students showed up and the winners of the first three places in each category won scholarship money.

The school hosted the Jets/TEAMS Competition on Friday, March 8, 2002. 16 teams from 7 Central Indiana high schools (Bloomington South, Cathedral, Center Grove, Columbus East, Hamilton Southeastern, Noblesville, Zionsville) participated. Many faculty (Dongsoo Kim) and staff (Teresa Abney, Lisa Berling, Mary Carter, Laura Jefferson, Vickie Lawrence, Terri Ryckaert, Karen Siurek, Karen Sloan, Sheila Walter) members assisted in hosting this event.

Faculty Development Grants

Following faculty members were recommended by the Resources Policy Committee of the school to receive the indicated development grants:

Cliff Goodwin, "The Effectiveness of its Certificate in Human Resource Management", Assessment Initiative Grant of \$1,200.

Erdogan Sener, "Does it Make Economic Sense Also: Economic Feasibility", Assessment Initiative Grant of \$1,000.

Richard Pfile and William Lin, "Using Certification Exams to Help Formulate Course Objectives", Assessment Initiative Grant of \$1,500.

Charles Feldhaus, "Authentic Assessment Using Student Portfolios", Assessment Initiative Grant of \$4,600.

Laura Lucas, "Assessment Made Simple- Part-timers Guide to Assessment", Assessment Initiative Grant of \$1,200.

Hiroki Yokota, "Analysis of Human Gene regulation Using Nonlinear Formulation", Research Initiation Grant of \$4,000.

Andrew Hsu, "Unified Macro-Micro-Nano Scale Computing Using Molecular Dynamics and the Lattice Boltzmann Method", Research Initiative Grant of \$4,000.

Barbara Christie, “ Companion to EET 102 for Vocational Students”, Instructional Initiative Grant of \$4,500.

Stephen Hundley and Liz Coles, “the GO GREEN Project”, Instructional Initiative Grant of \$4,000.

Hazim El-Mounayri, “ Development of Computer Based Tool (CBT) for Teaching Manufacturing Using Pro/ENGINEER in ME 446/597 Course”, Instructional Initiative Grant of \$4,000.

Janis Stevens, “Developing Reusable Learning Objects”, Distributed Learning Initiative Grant of \$5,000.

Ken Reid, “ On-Line Curriculum/Learning Modules for Introductory Digital Electronics”, Distributed Learning Initiative Grant of \$5,000.

Trustees Teaching Awards

The school Resources Policy Committee selected Joy Starks, Hazim El-Mounayri, Cliff Goodwin, Barbara Christie, and Jack Zecher for the Indiana University Trustees Teaching Award. Ed Sullivan was selected to receive the Trustees Teaching Award from the IUPUI School of Continuing Studies. Each award is \$2,500

Faculty and Staff Awards for 2002

Special Awards Committee of the school selected the following faculty members for the awards indicated.

The departmental winners of the Wisner-Stoelk Teaching Award by student ballots are Jerome Clark from CPT, Brian Kinsey from CNT, Maher Rizkalla from ECE, Ken Reid from ECET, Nancy Lamm from ENGR, Andrew Hsu from ME, Bob Herman from MET, Rob Wolter from OLS, and Harriett Wilkins from TCM. The Special awards Committee chose Rob Wolter as the 2002 school winner.

Frank E. Burley Distinguished Professor Award went to Doug Acheson.

Abe Max Distinguished Researcher award went to Razi Nalim. Hasan Akay received the Doris H. Merritt Outstanding Leadership Award and the Outstanding Teacher award went to Stephen Hundley.

Marilyn Mangin will receive the 2002 Outstanding Staff Award.

Purdue University International Travel Grants

Following faculty members from our school received international travel funds from the Purdue University:

Razi Nalim, ASME International Gas Turbine Conference in Netherlands, \$1,040

Jie Chen, ICFDM 2002, China, \$802

Hasan Akay, Parallel Computational Fluid Dynamics Conference, Japan, \$1,012

Yaobin Chen, World Electric Vehicle Symposium, Korea, \$826

Akin Ecer, Parallel Computational Fluid Dynamics Conference, Japan, \$1,012

Stephen Hundley, WACRA, Germany, \$1,045

Pat Fox, WACRA, Germany, \$1,045

Staff Recognition

Congratulations to Larry Hill for his selection as the 2002 Counselor of the Year in University College.

Please welcome two new staff members to the school. Angela Bowers joins us as the Engineering Dual Degree Program (EDDP) Coordinator with Butler University. She will spend her time on both IUPUI and Butler campuses assisting the EDDP students. Betty Klein joins us as an Administrative Secretary for the Office of Academic Programs.

Recognition of MEAP

Our Minority Engineering Advancement Program (MEAP) has been selected by IUPUI as the “Distinguished Contribution Program” for diversity in 2002. The recognition took place at the Joseph T. Taylor Symposium in February and it was also included in Chancellor’s State of the Diversity address. Director of MEAP, Patrick Gee, accepted the award.

Attachment II

Purdue School of Engineering & Technology IUPUI Policy for Peer Review of Teaching March 2002

A. INTRODUCTION

This document establishes the policy for peer review of teaching for the Purdue School of Engineering and Technology, IUPUI. A peer-review policy is established for two principal reasons: first, a formative peer review supports faculty in becoming effective in instruction, both in classroom delivery and in preparation for classroom delivery; secondly, a summative peer review establishes, in part, performance for the purpose of evaluation in the promotion-and-tenure review process, from primary committee to the school and university P&T committees. The IUPUI Promotions-and-Tenure Committee specifically requires documentation of peer evaluation of teaching, including class visits by peers, external peer reviews of materials, and peer evaluation of scholarship. The IUPUI P&T evaluation form lists peer review of teaching as the first criterion of teaching evaluation, followed by scholarship criterion, student evaluations criterion, and other criteria; the form requires an evaluation by the reviewer of the adequacy of documentation of these criteria. This school peer-review document is intended to establish a peer-review policy that is beneficial to the faculty member in that the policy is pedagogically edifying and it is also instrumental for candidate reviews.

This document must be considered as a set of guidelines -- not an inflexible dogma. An individual case may require extraordinary procedures where deemed necessary jointly by the faculty member and the department unit.

B. GUIDELINES

· Peer review plays a critical role in promotion, tenure, and professional development.

Peer review is endemic in our academic careers. Faculty regularly seek feedback from their peers on their course topics, their teaching methods, and their outcomes. These requests are voluntary and not subject to evaluation for promotion, tenure nor financial compensation purposes. Likewise, a formally implemented procedure for peer review is only effective if a faculty wishes to be reviewed. The need for a more formal peer review process arises when a candidate applies for reappointment/promotion and/or tenure. The candidate's teaching needs to be evaluated at the department, school, and/or university level. According to the IUPUI P&T Guidelines, "**Evidence of the quality of teaching and advising as evaluated by peers must be included.**" (Reference: *IUPUI P&T GUIDELINES* (current edition)). It is in the interest of the candidate to conduct peer reviews in order to document the candidate's teaching performance. It is the responsibility of the department chair to facilitate this process and provide adequate orientation for faculty.

- Peer review should also be available to those who ask for it, with special consideration for first-year, second-year, third-year, and P&T candidates.

Peer review is helpful to all who teach. It is especially useful for new faculty. Peer review is most productive when the faculty member requests it and when this process starts early in their teaching career. For this reason, it is recommended but not required that a formative peer review process take place within the first year of the faculty member's teaching career. Both classroom performance and course materials can be fully reviewed and the faculty member can be provided feedback based on both the peer reviewer's opinion and on those opinions gathered from focus groups. By starting the process in the first year, the faculty member has an opportunity to evaluate his/her performance, decide if the evaluation justifies further development, and if so, request a second-year evaluation. These first- and second-year evaluations are confidential and the property of the faculty member unless the faculty member wishes to share them with the department unit for his/her annual review or other similar purposes. The third-year peer review is summative for the purpose of evaluation by the department unit for the purpose of determining the recommendation for reappointment of the candidate. Likewise, the peer reviews in support of promotion and/or tenure are summative for review by all levels.

- The School supports and encourages peer review of faculty for the purposes of self-development and for promotion and tenure.

The individual faculty and his/her chair shall mutually determine the procedure for the peer review, including the participation of external offices such as the Office for Professional Development (OPD) and the Faculty Colloquium for Excellence in Teaching (FACET). The procedures for peer review are in the IUPUI P&T Guidelines document and can serve as a resource for peer review for the faculty and chair for initiating and continuing peer review.

- Peer-review programs shall be initiated by the faculty with a written description supplied to the department unit for comment by the department unit.

It is important that the department be aware of the kinds and forms of peer review that are ongoing that may be used for promotion-and-tenure support. Each formal peer review that could potentially be submitted should be disclosed and recognized by the department unit.

F. Summary

This document provides School guidelines for peer review for the purpose of promoting teaching enhancement and assisting in the promotion and tenure process. This document shall become effective upon the date adopted by the School Senate.

Submitted to the School Senate by the Faculty Affairs Committee: Stanley Chien, Daphene Cyr, Stephen Hundley, Marvin Needler, Chair, Ramana Pidaparti, Robert Tharp, David Williamson, March 19, 2002.