PURDUE SCHOOL OF ENGINEERING AND TECHNOLOGY
Faculty Senate Minutes
November 10, 2009

Representatives in Attendance: Doug Acheson, Karen Alfrey, Mark Bannatyne, Ed Berbari, Debra Burns, Elaine Cooney, Jan Cowan, Yingzi Du, Pat Fox (alternate), Cliff Goodwin, Connie Justice, Emily McLaughlin, Ken Rennels, Steve Rovnyak, Paul Salama, John Schild, Erdogan Sener, Joy Starks, Bill White

Guests: Marj Rush-Hovde, Andrew Hsu, Stephen Hundley, Sarah Koskie, Hiroki Yokota, Dean Yurtseven

Presiding: Ken Rennels, Faculty Senate President

Meeting began at 11:05 a.m.

Ken Rennels announced that Joy Starks is now Interim President-Elect.

Ken Rennels asked everyone to look at the agenda for the meeting, the agenda was approved.

Ken Rennels asked everyone to look at the minutes from the October 2009 meeting. Copies of the minutes are not distributed at the meeting, but can be found at G:\COMMON\Senate documents in addition to being distributed to all faculty via the E&T Faculty email at least one week prior to each Faculty Senate meeting. A motion was made to accept the October 2009 minutes; all approved.

Administrative Report

Dr. Yurtseven advised Faculty Senate of the following (see Attachment 1):

Academic Programs:

Energy Engineering-BS program proposal is now at the Purdue Board of Trustees. We hope to have it approved soon.

CGT and CIT went through ABET visit on October 18-20, 2009. The school will receive a draft report early 2010, and a final decision will come August 2010 after our response in early spring.

MAT is going through accreditation through the National Association of Schools of Music (NASM) accreditation during November 7-10, 2009. For part of the student work, students put on a concert last night; jazz ensemble, choral ensemble, etc. were displayed. The concert was very good. NASM has a similar process as ABET, they will make a final decision in May 2010. Dr. Yurtseven advised MAT is expecting good news. Debra Burns advised there are two evaluators here, one is from Louisville, Dean of Music and the other evaluator is from University Wisconsin-Milwaukee.

Grants and Contracts:

Dr. Yurtseven advised the school is still #2 with regard to research grant dollars.

- Charles Turner (BME): University of Delaware, Non-competing Continuing Research Award, 9/8/09-8/31/10, ICR: $52,640, Total: $154,854

- Mohamed El-Sharkawy (ECE): Endress Hauser, Competing/Continuing Research Award, 10/1/09-9/30/10, ICR: $3,744, Total: $18,844

Faculty News:

Jie Chen (ME) and Feifei Jiang (ME), submitted innovation disclosure to the Office of Technology Commercialization

Eliza Du (ECE) and Luke Thomas (ECE) submitted innovation disclosure to the Office of Technology Commercialization

IUPUI Laboratory Building:

Renamed IUPUI Laboratory Building last summer, new name may be IUPUI Lab Sciences Building or IUPUI Life Sciences Building. The chancellor is looking for a distinctive name for the building. Let Dr. Yurtseven know if you have any ideas for a building name. This building will be shared with Science and now it appears the building will be built in three phases. May end up being a $60M building, $20M per phase; first phase will be done without state funding, accelerated, 80% will have to be research. All of the money should be covered by research funds. The campus agreed to begin building, $5M will come from president, $15M will be borrowed from bonds, have to pay $1.3M to $1.5M per year for 20 year mortgage; the $1.3 - $1.5 will come from the campus and the two schools. The next phase will be funded from the state of $20M and will have classrooms and undergraduate teaching labs. The meetings will start again with the School of Science and campus to discuss the building plans. Phase 3 will come at a later stage.

John Schild asked if the lab building still includes an animal facility; Dr. Yurtseven advised they have not received any direction from campus, but believes there will be an animal facility for research.

Budget:

Dr. Yurtseven advised the budget is getting more serious. The governor said in September there was a shortfall of $254M revenue deficit, and the October shortfall is $46M, which equals a $300M deficit. The state may ask for 10% of this year's budget back from state agencies. The governor also announced no salary raise for state employees for 2010; it is not clear whether this is a calendar year or how it will affect our campus. Dr. Yurtseven advised we have already made preparations to save $400K because not in base for 2013, now campus is advising the governor may ask for cash back this year, which will be $400,000-$500,000 this year from our school. Dr. Yurtseven is still waiting on definite directions.

Associate Dean's Report

Stephen Hundley presented the following report:

PUL Assessment
- 5-year plans have been submitted to campus
- Each E&T course will assess the relevant PUL(s) according to the schedule
- Assessment Committee is "process owner" for this initiative with support from Associate Dean
- Plan is to use ABET/NASM/CIDA data to support this effort

Early Warning/Feedback to Students
- Launched in fall semester

- Data was not archived, but plans to archive data for analysis will occur in spring and onward
- E&T is developing our communication approach (Nancy Lamm, Danny King, Ginger Lauderback, Kelly Keelen, and Stephen Hundley) for students
- Two-pronged communication:
    - Faculty-to-student in class
    - School-to-student in situations where negative performance is noted in more than one class

Stephen advised the electronic version Early Warning was launched in the fall semester; conflicting reports from the campus, initial reports were not archived. The Registrar has promised the information will be available in the spring for analysis. Within E&T a group is getting together on November 24th at 1:30 p.m. to see what to do internally with the information to advise students of resources available to them if they are having trouble. Hundley noted the assumption is if I am a faculty member and I am reporting a student having trouble in my class I should be working directly with the student. What are school and campus level resources available to students; Dean's office will provide this information to faculty.

Hundley noted we should be aware if a student is having trouble in multiple classes, intervention opportunity at school level with advisor, chair or faculty member; how to analyze data and get information to students. While preparing for spring semester, as best you can as a faculty member, try to provide a low stakes, yet representative assignment so the student has an idea what your expectations are, what the scope of the work will look like, so they can adjust their work load, or decide if they can stay in the course. Hundley advised they will leave this discussion up to chairs and faculty members regarding an early assignment offering. Pat Fox questioned what the early warning date will be in the spring. Hundley noted the early warning should come out within the 2nd week of class, would have into 4th week to complete.

John Schild asked if a student is tagged will help be offered to student in preparing and taking classes for the next semester. Stephen Hundley noted this is part of the issue, and none of this will be part of the student's permanent record. What we are looking at for the school level is how best to use the information to help and advise the student. Hundley noted they are still looking at the process standpoint; how do we make this work impact wise. If we have a huge response rate of faculty doing this, a) that is great and b) what is the appropriate level of intervention that we can provide from a school standpoint to the students. If we are seeing negative indicators happening in more than one course, that would tend to suggest that the student issue transcends more than just that one discipline, subject or faculty interaction. Cliff Goodwin questioned whether this would be done for our majors, or any student in a class. Hundley suggested this will be done for any student in your class and on your roster, but our focus will be for students in our school. Hundley noted that very good instructors know early on if the student is having trouble and speak with that student. Hundley advised that Nancy Lamm is heading the meeting on this so please let her know if you have any additional thoughts or suggestions.

OnCourse Student Survey

- Survey: Student Engagement, Experiences, and Expectations in the OnCourse Environment
- Developed by Erich Bauer, Julie Little-Wiles (PhD student at Purdue-WL), and Stephen Hundley
- Administered to all E&T undergraduates via e-mail in mid-November; IRB approval has been obtained
- Incentives (e.g. some drawings for $100 toward bursar account statement)

Stephen Hundley advised a copy would be sent to the faculty also.

Upcoming faculty development events

- Open Meeting w/ Solution Center Representatives (Date TBD 12/2/09 or 12/7/09, ET 103, Noon-1:30pm) to discuss community connections for research, teaching, service, etc.; will discuss resources Solution Center can offer.
- PUL Symposium: Tuesday, 1/21/10, CE 409, 9:00am-3:30pm
- E.C. Moore Symposium on Teaching Excellence, Thursday, 3/4/10, Campus Center, 8:00am-5:00pm

Stephen Hundley hopes that as the call for proposals comes out for these events that you will consider sharing some of your good work with others on the campus. Since opportunities to engage in dissemination may be limited because of travel these might be good venues to have some of your work piloted in advance of publication.

Dean's Search Update

- Dr. Ted Marchese from Academic Search has been retained; he has met with key stakeholders at IUPUI, including chairs/deans/directors and search committee members
- Per his advice and the search committee's consensus, we will not report names/numbers of candidates at this juncture.
- Review of materials will occur in December (committee will meet 12/10 and 12/17)
- Neutral-site interviews will occur January 15-16, 2010
- Candidates invited to campus in early-February, at which time confidentiality of candidates can no longer be assured
- Goal is to provide Chancellor a list of 3 unranked candidates who are suitable to the committee by end-of-February

Stephen Hundley also noted that Marchese is working with us to reach out to passive candidates and is forwarding the information to people who would not think of looking at job market right now. Hundley noted that Indiana is viewed as more stable financially, and our responsibilities to the management environment are viewed by many as an attractive market in which to provide academic leadership.

There will be multi hour meetings on 12/10 and 12/17 by the search committee to review materials and as needed the committee will provide phone screenings with candidates as needed.

Neutral site interviews are done on the weekend of January 15-16 for candidates who cannot get away during the week and/or for anonymity. They will not come to campus, and will be interviewed by the search committee only.

Hundley advised there will be plenty of opportunity for the school and campus groups to be involved in early February when campus interviews occur. Once the candidates set foot on campus, cannot guarantee confidentiality at this point.

Additional Questions for Stephen:

Marj Rush-Hovde questioned the survey and how the results will be used. Will be used help them to understand how students are experiencing the Oncourse environment. And provide feedback to the department on student perceptions of their engagement and the perceptions of their interactions and to provide some feedback to programs on ways to make Oncourse more engaging for students. National Survey of Student Engagement and the Institution are in the process of drilling down to the unit level and doing some analysis, looking at this survey coupled with the results there will help provide some points of view.

Cliff Goodwin asked if faculty are being surveyed; Hundley advised for the purpose of this survey analysis they are surveying students only at this time. Goodwin noted there are a lot of faculty having trouble with Oncourse. The focus of this is on what faculty and students are doing to engage students learning use of Oncourse over things we have control over within Engineering and Technology; we do not have control over design and functionality.

Goodwin noted one problem faculty are having trouble with is UITS. Hundley noted to forward those issues to CRC. Goodwin noted UITS should be advised how limited this technology is in terms of using new teaching methods. For example, giving and receiving feedback, have trouble posting grades. Goodwin believes in some cases the students may not be best to ask how interface is working.

Associate Dean for Graduate Programs and Research

Andrew Hsu advised the research income so far for the 4 month period is $5.3M which compared to last year's $1.7M is a 300% increase. We are number two on the IUPUI campus only behind the School of Medicine. Hsu distributed information on research dollars summary from Indiana University, which shows the school by school distribution of awards for this year and previous years.

Hsu noted the Multi-Disciplinary Ph.D. concept paper that our school initiated. There are five schools now participating: E&T, Science, Liberal Arts, Business and SPEA. The concept is that the Ph.D. will be owned and jointly offered by 5 schools; concept paper was discussed during the E&T Graduate Affairs committee as well as the Campus Graduate Affairs Committee. Dr. Yokota will report on the paper during Faculty Senate also.

Hsu advised that the school is also working on a Science masters proposal with 3 other schools, Science, Kelley School of Business and SPEA through an NSF proposal. The program, along with the science and technology aspects, will teach the policy, economics and environmental aspects of energy systems. This is a limited submission proposal; won the IUPUI competition earlier this year.

Last item, the School of E&T submitted 3 earmark proposals, some of the proposals planned were not submitted, hope to get them in next year.

Budgetary Affairs Committee – No Report

Computing Resources Committee (CRC)

Connie Justice discussed the Student Technology Proposal that she distributed (see Attachment 2).

The committee revised the proposal because the memorandum of understanding and the exact lab numbers and the cost of all of this is still under review. The committee is requesting an endorsement from the Faculty Senate for the idea and concepts in the document.

Item # 1 is currently being funded by Student Technology Fees.

Item #2 identified some of the labs in question; the overall view of this is that in order to run a lab it takes resources as far as hardware/software, but it also takes resources for an employee and student employee. CRC is trying to figure out what the cost of a lab would be.

Also working on loading of the lab; UITS is going to assume responsibility of the labs decided on (hardware, software and maintenance), the school will still own the rooms.

Mark Bannatyne questioned if certain departments can expand to adopt the laptop program? Justice advised lab information will be reviewed, labs may be still maintained by UITS, but they will come in and equip the labs differently. Powering the laptop lab is less expensive than a regular lab room.

Programs that currently use certain labs will still be able to utilize those labs on a first come first serve basis; however, once the labs are utilized or program fills them up, the labs will be opened to everyone.

Space request for school recruiting and conference functions will be filled after classes are scheduled; for example, Project Lead the Way if not planned far ahead may have trouble getting labs. Justice noted the committee is working on these issues now.

After hours mechanism will still be maintained by CNC; will still maintain swipe card, any IUPUI student should have access. Sarah Koskie questioned if this will be a problem to allow any IUPUI student in the labs, if there will interfere with our students having a place to work. Ed Berbari requested during the chairs meeting that UITS use specific classrooms and fill them up, and then let the school know where there are free classrooms. Keep a certain number of classrooms for our school, or see where there may be open labs available at certain times.

Dean Yurtseven advised UITS will not have any ownership and we will not have ownership, but will be owned by campus. Neither UITS nor School of E&T will be taxed on the rooms. After 3 years UITS will have the option of giving up more or less lab space.

Ken Rennels asked about the wireless laptop program, infrastructure issues, is this a given that UITS will handle this? Justice noted she can add some information about this in the proposal.

Software request system, UITS maintaining rooms beginning July 1st; Rennels questioned the plans for faculty to request software. Justice advised this is under general inventory classroom and general inventory computer lab; there will be a date where UITS requires software requests. There should be an announcement to faculty/staff when to request labs. Timeline for software requests to UITS is a lot earlier than you are used to.

Rennels questioned courses that need a computer lab for part of the semester only, he teaches a class that only needs a lab the first five weeks, is there any provision for flex scheduling or something along those lines. Justice will check into this.

Connie Justice advised she will make the appending changes and additions to the proposal as discussed, and is currently asking for endorsement for concept of document, etc.

Elaine Cooney noted that the committee has done some good work…comes with high recommendations from the committee.

Faculty Senate unanimously approved the E&T Student Technology Fee Transition Proposal proposed by the Computer Resources Committee.

Constitution and Bylaws Committee - No report

Graduate Education Committee

Hiroki Yokota distributed the concept paper for the Proposal for a Multidisciplinary Ph.D. Degree Program at IUPUI (see Attachment 3).

Discussed the following items:

1. GRE requirements – done in some departments, but the Graduate Education Committee wants to make it a school wide requirement; asking individual departments to look at this requirement.

2. Tuition supplements - for international students, currently supported by faculty research grants; the committee wants to expand this supplement to the international students who are supported by faculty's 22 accounts; Graduate office is now looking at how many students are supported by research funds, etc.

3. Research integrity/ethics - NSF recently issued the requirements of research integrity/ethics training to Postdoctoral fellows, Graduate and Undergraduate students. Indiana University is now preparing for a web-based training and test to satisfy the requirements; thus we do not have to develop our own training program. Yokota is waiting for more information from IU; the committee may want to request this training to all postdoctoral fellows and graduate students regardless of NSF support.

4. Auditing of proposed plan of study – The committee thinks it more appropriate for individual departments to look at and evaluate the plan of study prior to graduation. Committee feels it should be done by individual departments.

5. Multidisciplinary Ph.D. concept paper, organized by Dr. Hsu, including 5 schools. The Schools include Public and Environmental Affairs, Business, Liberal Arts, Engineering and Technology, and Science. This will be an IU degree and there is no detailed curriculum. The committee just briefly discussed and all of the members are supporting the idea; there is no conclusion, each department will discuss and bring back feedback.

Yokota noted that this is need based and not just IUPUI based. The Graduate Education Committee believes we need to offer multidisciplinary training opportunities; Some faculty in our school have two PhDs, but dual PhD training is not an ideal option. For instance, to some students who may want to learn how to develop not only therapeutic drugs but also their marketing plan, the proposed multidisciplinary program is a good option.

Secondly, multidisciplinary PhD training is a national trend as well as an international trend. Many big names including Harvard, Stanford and some of the big 10 schools have a multi-disciplinary degree. Third, both depth and breadth are important in PhD training. However, the current options are all discipline based, and few options for breadth are available at IUPUI.

Discussion items regarding Multidisciplinary Ph.D. Degree

Ed Berbari questioned international students and tuition, does this include out of state students also; many may be international students; should include non-resident students in general. Hiroki will check on this.

Mark Bannatyne questioned the amount of credit hours, seems low. Ph.D. is 60 hours past B.S. course work.

Debra Burns questioned the terms of multi-disciplinary, trans-disciplinary, and interdisciplinary, believes overall package will be important and should stay with one word. Burns believes trans-disciplinary is the highest level of integration and multi-disciplinary is the lowest level of integration. Believes you need to decide to stay with one term and not deviate, conceptual issue.

Ed Berbari noted that when Uday Sukhatme spoke with them was the campus funding. Berbari hopes that people recognize if you are going to offer Ph.D. programs, there has to be an investment. If you are trying to sell this as a zero cost program, it will not be zero cost, there will be funds needed for more faculty, more space, administrative report, etc. Basically, we had a Graduate office in our school that every time more work comes along the work is distributed to the departments. These are unfunded mandates; end up with less and less support for current programs. If this is going to go forward, Berbari believes we need a real investment from campus, have all of these course they exist, does not believe we can have quality Ph.D. programs without quality investment of resources.

John Schild questioned if the group of associate dean's somewhere along the line are no longer trying to take advantage of the current IU and Purdue Ph.D. programs. Yokota believes the current programs are not affected and the committee wants to have comments and suggestions from faculty. Yokota understands that Andrew Hsu spoke with Uday Sukhatme and came up with a white-paper proposal for a new multidisciplinary program. Dean Yurtseven gave some additional background…noted Higher Education Commission is looking at awarding of PhD. Degrees. Currently, almost all IU and Purdue Ph.D. degrees are granted in Bloomington or West Lafayette. Indiana Commission on Higher Education is saying if work is done on one another campus, the PhD diploma needs to identify where it is completed; this has been a tug of war between ICHE and IU/Purdue during the past 7 months. West Lafayette will allow some PhD Science degrees labeled by campus but not for others. This proposed degree will say it was done on the IUPUI campus. Schild asked if this would obligate us to handle the administrative area. Yurtseven advised the degree would be handled by the Graduate office on campus. At this time the degree and resource issues are in the conceptual stage.

Grievance Board – No Report

Faculty Affairs Committee

Marj Rush-Hovde advised the Salary Guidelines (see Attachment 4) were distributed via email with the agenda; there was a first reading last month, during this meeting Faculty Affairs Committee is requesting Faculty Senate approval. Central campus administration requested that each school have a Salary Guidelines policy. Rush-Hovde displayed the policy during the Faculty Senate meeting. The policy explains philosophy, and Faculty Affairs Committee reviewed the document since it covers salary issues.

The document covers: academic base salary, administrative supplement, summer compensation, bonus compensation, teaching and overload compensation, along with faculty ranks and general information.

Steve Rovnyak questioned since there are times when faculty go years without salary increases, that the salary increase should perhaps reflect the work done over the past 2-3 years; asked if anyone else agrees, and should be encouraged in the document.

Rush-Hovde noted she did not get any feedback over the past month. Ken Rennels asked if there was anything that would preclude looking at past years work. Last paragraph it is noted that the salary increase is based on the Faculty Annual Report, possibly add some information there, or make this plural. Treat people fairly, if no pay raises one year look at previous year(s) when there was no salary increase.

Faculty Senate unanimously agreed that the sentence below should be added to the E&T Salary Guidelines and unanimously agreed to accept the Salary Guidelines with the update.

When no raises were awarded in the previous year(s), the evaluation may include those years of reports and chair's evaluations.

Marj Rush-Hovde will put a copy of the updated document on the school website; there is a link for faculty and staff, under documents.

Faculty Affairs committee is still working on the P&T document, revising the peer reviews of teaching, and revising the end of the semester questions. Faculty Affairs will be meeting with CTL on Friday to discuss peer review guidelines and end of semester questions. The committee hopes to bring these items to Faculty Senate for a vote in the near future.

Rush-Hovde advised apparently the campus is planning to make provision for some schools under certain circumstances to make tenure probationary period 9 years in some instances, proposal being given to schools to see if they want to accept document. Some schools have adopted this new provision, possibly because some of the grant time issues. Faculty Affairs will look at this as to whether it should be offered by our school.

Nominations

Joy Starks advised Rob Wolter is working with Sherri Alexander on the nominations and voting database.

Resource Policy Committee – No Report

Student Affairs Committee – No Report

Undergraduate Education Committee

Karen Alfrey advised there is one action item and one information item. See Attachment 5 for the E&T Undergraduate Education Committee Report.

ECE 26200 Engineering Programming Lab – one credit course is the lab component supplementing an existing three-credit course.

This course was originally proposed as a 4-credit hour course; however, during remonstrance Computer Science protested that they already offered a four-credit course covering similar material. Steve Rovnyak noted the department has been trying to revise the programming requirement for ECE; this one-credit lab course will supplement an existing three-credit lecture course. The course content includes C programming language.

Faculty Senate unanimously approved ECE 26200, Engineering Programming Lab, 1 credit hour

Karen Alfrey advised there are ongoing discussions of the admission requirements. Recommendations from the New Student Academic Advising Center that any further changes to the Technology admissions requirements that were clarified last month should wait one year; traditionally, the school has not had a large amount of direct admits for Technology. On the engineering side, the specific requirements for direct admission into E&T include high school math and chemistry, 3.0 GPA requirement and these requirements will remain. Mainly want to discuss if we want to change our current SAT requirements for dual admission in Engineering. Currently we required a minimum SAT-M 520 and minimum SAT-V 480 which are relatively ancient requirements from Purdue. Purdue no longer publishes their requirements; do we want to adjust them? The other point of information that Nancy brought up is that because students have another path to us besides being directly admitted. Students can still go through University College, difference is they are advised by University College in their first year and not us, is this desirable, for students not prepared for our program this is good; for students who may have borderline SAT scores but some high-school experience with calculus, however, being advised by Freshman Engineering may

provide greater flexibility for placing them into appropriate math classes. Would you like to see standards change and if so what would be desired purpose…if we raised math SAT score, might send a message that we expect our students to be good at math. Alfrey advised the committee will continue to discuss, if they decide changes are warranted will present again.

IUPUI Faculty Council

Cliff Goodwin advised the IUPUI Faculty Council met on Tuesday, November 3rd.

The IUPUI Faculty Council meeting was brief because of the State of Campus address by Charles Bantz presented after the meeting.

One action item was the Intellectual Revenue Policy; units define how the 15% of intellectual funds would be distributed; if center and a unit divided in half for example.

Chancellor Bantz administrative review is completed, and will be presented in spring 2010.

Vice President for the university, CFO, talked about budget as far as IU and State of Indiana are concerned. Dr. Yurtseven covered a lot of the information. Cliff read from a budget response handout that was distributed during the IUPUI Faculty Council meeting, following items noted from handout:

1. University foregoes salary increase for first time in at least 50 years.
2. IUPUI required to sequester $8.6 million of scheduled state operating appropriation cut.
3. Purpose is to lower IUPUI's base budget by $10.5 million by Spring 2011.

School believes they will have this budget issue for at least 3 years.

Purpose to lower IUPUI base budget and projected that for at least 3 years will have this issue…

State of Campus address can be seen on the IFC website; Ali Jafari and Barb Christe were featured during the address.

For details on the above information and all other IUPUI Faculty Council meeting notes, please look at their website: www.iupui.edu/~fcouncil.

IUPUI Graduate Affairs Committee

Andrew Hsu noted the following:

- Approved new degree program: MA in Sports Journalism
- Approved new certificate program: Graduate Certificate in Medical Dosimetry
- Discussed Exam Preparatory Courses, and concluded that they should not be used for degree purposes.
- Administrative home for multidisciplinary PhD: the possibility of housing it in the Graduate office on campus.

Ed Berbari questioned the Multidisciplinary Ph.D. Hsu discussed the idea with Dean Sukhatme and said if we can have a multidisciplinary program, which is actually needed. Many universities have these types of programs. This type of program is prominent in the United States and Europe. The idea is that if each individual school is having difficulties running their own Ph.D. program, the perhaps if 5 schools get together and each contributes a certain number of courses the program will be viable. The five schools

met and discussed the program; there are two ways of thinking. One is that you can have a very generic multidisciplinary program, under which you can have as many tracks as you want, but the group noted this would not be a good program to offer and felt we should have a more specific emphasis. The group decided the program focus should be Sustainable Development; all of our schools are interested in this area. Sustainable Development is human development in industry, science. Hsu advised Hiroki Yokota will present additional information on this degree program.

Hsu advised Dean Yurtseven will present the concept to the Dean's council, and is still in development and they are looking for input as to what would be the right balance of generalities and specifics. There will need to be some topic but broad enough for multiple school participation. Ed Berbari is concerned that we will have a Ph.D. program that is across many disciplines and not have depth in a particular area. Hsu advised the program will have depth, but is a collaborative effort among the five schools. In the concept paper there are examples of universities that offer this type of program.

Sarah Koskie noted that some schools will allow the student to propose and outline their Ph.D. program, specify what schools/faculty involved; in depth but did not fit into specific tracks available. Hsu noted there are many different models, another model would be a student comes in and rotates through all the various participating programs over a year's time and then drill down in a specific area; have exposure in entire area, dissertation will be in one specific area.

Purdue Intercampus Faculty – No Report

Purdue Technology Senate – No Report

Purdue Faculty Senate – No Report

Mark Bannatyne advised Purdue Senate will meet next week; let him know if you have any issues you want him to mention.

Purdue Graduate Council

Andrew Hsu advised the Purdue Graduate Council also has an intercampus committee meeting associated with the council; the associate dean's from various Purdue campuses meet monthly.

Purdue graduate enrollment is up on all campuses.

Purdue Graduate School is implementing electronic Graduate Faculty Appointments and Graduate Plan of Study, which will soon be made available to IUPUI. All of our faculty members will have to access the Purdue account with a password and account number through the OnePurdue account. Students will need this also; will go to the website for their plan of study.

IUPUI Council of Associate Deans for Research

Andrew Hsu advised this council had a meeting the first Friday of this month. IU Interim Vice President for Research Dr. Bobby Schnabel spoke about the new office that will be a system wide office. They are in the process of searching for a permanent Vice President of Research. The position is mainly for IUPUI and Bloomington; the person will reside at Bloomington.

Campus Signature Center has been discussed. There is now an April 1st deadline, currently the main issue is that continued funding for existing centers: Centers will be reviewed at the end of the first 3 years and

will decide if center is worthy of title of signature centers. If centers are granted Signature Center status, there will be 5 more years of continuous funding at a reduced level.

Assessment Committee – No Report

New Business – No Report

Update on Dean Search and Screen

Meeting ended at 12:47 p.m. The next Faculty Senate meeting will be Tuesday, December 8, 2009, 11:00 a.m. in SL 165.

Additional note from Ken Rennels:

Karen Lee distributed an email from IUPUI Faculty Council, recruiting at large nominees for IUPUI Faculty Council; Dr. Yurtseven suggested we put some faculty forward. Cliff Goodwin, Ed Berbari and Debra Burns are currently representatives from our school. Faculty agreed it would be good to recruit some faculty to be at large members. Ken Rennels will work with Rob Wolter regarding nominations. Ken Rennels will also distribute a list to department chairs of their Faculty Senate members to make sure they are attending the meetings, or send alternates.

Attachment 1 – Dean's Report

Dean's Report for November 10, 2009 Faculty Senate Meeting

Academic Programs

- Energy Engineering-BS program proposal is now at Purdue University Board of Trustees. It will go to Indiana Commission for Higher Education after the Board approval.
- Computer Graphics Technology-BS and Computer and Information Technology-BS programs were visited by ABET team for initial accreditation during October 18-20, 2009. The preliminary draft report by the ABET team will be available early 2010 for us to respond.
- Music Technology program went through initial National Association of Schools of Music (NASM) accreditation during November 7-10, 2009.

Grants and Contracts

- Charles Turner (BME): University of Delaware, Non-competing Continuing Research Award, "Mechanotransduction: Purinergic Signaling in Bone", 09/08/09-08/31/10, ICR: $52,640, Total: $154,854
- Mohamed El-Sharkawy (ECE): Endress Hauser, Competing/Continuing Research Award, "Behavioral Modeling of a Digital Signal Processor Application", 10/01/09-09/30/10, ICR: $3,744, Total: $18,844.

Faculty News

- Jie Chen (ME) and Feifei Jiang (ME) submitted innovation disclosure "A Method to Quantify Bone Stiffness Using Ct Data" to the Office of Technology Commercialization.
- Eliza Du (ECE) and Luke Thomas (ECE) submitted innovation disclosure, "New Method of Biometric Recognition" to the Office of Technology Commercialization.

IUPUI Laboratory Building

- Multidisciplinary Laboratory and Classroom Building which was renamed as IUPUI Laboratory Building during last summer has now new names of IUPUI Lab Sciences Building or IUPUI Life Sciences Building with perhaps two distinct phases. The first phase ($20M) will be 80% research as dictated by the State and it will not use any State funds and student tuition income. The second phase ($20M) will come from the State, if approved, from the 2011-13 budget. The plan to cover the cost of first phase is to have IU President contribute $5M and to have campus come up with $15M. This will be borrowed with a debt payment of $1.3M to $1.5M per year for 20 years. These funds will come from the indirect cost recovery funds of the campus, our school, and the School of Science.

Budget

- State appropriation to IU was cut by 4.2% and backfilled with federal stimulus funds for 2009-10 and 2010-11. These federal funds will not be available for 2011-12 and beyond. Thus, each academic unit needs to reduce its base funds by 4.2% for 2009-10. Our School's share for 2010-11 is $396K.
- State was $254M short of projected tax revenues in September 2009 and the October 2009 shortage is $46M. The Governor may ask some cash funds back from this year's budget and he may impose new cuts on the base budget for next year.

Attachment 2: STF Proposal

Engineering and Technology
Student Technology Fee Transition Proposal
****Revised Version (Draft)**
Fall 2009

1. UITS is committed to pay the salary for filled positions that in FY 09 were budgeted and paid by Student Technology Fees. Please identify current E&T appointed staff paid in FY 2008 in whole and in part with Student Technology Fees (position # / FTE/ name).
    a. 00029252 / 100% / FTE
    b. 90 hours a week of hourly support at the Help Window
    c. 20 hours a week of hourly support for Academic Computing

2. Identify the services in Engineering & Technology that are currently supported by Student Technology Fees, and provide a short description of those services.
    a. E&T supports 12 facilities with 375 computer seats in the Engineering and Technology Building.
    b. E&T provides 17 printers in various locations for student use.
    c. ET002 is an open lab with 23 seats
    d. ET006 is a computer classroom with 30 PCs
    e. ET010 is a computer classroom with 30 PCs
    f. ET014 is a computer classroom with 36 PCs
    g. ET015 is a computer classroom with 30 PCs
    h. ET019 is an open lab with 31 PCs
    i. ET224 is a computer classroom with 32 computers and ELVIS training stations
    j. ET308 is a classroom with no installed technology
    k. ET329 is a computer classroom with 27 PCs

3. Which of the services detailed above do you recommend continue to be covered by Student Technology Fees? For those services, when should this transition begin?
    a. The remaining portion of STF funds for FY ’10 will be returned to E&T to cover hourly and S&E expenses.
    b. Computer classrooms and labs listed below will be administered by UITS beginning July 1, 2010. The registrar will schedule classes for fall 2010 with Engineering & Technology maintaining priority scheduling rights on the program level. Space requests for school recruiting and conference functions will be filled after classes are scheduled. Space assignment is subject to periodic review as set forth in the Memo of Understanding developed jointly by the School of Engineering & Technology and UITS. There will also be a list of labs to follow.
    c. UITS will provide consulting support for the facilities administered by UITS.
    d. UITS will provide printing support for facilities administered by UITS.
    e. Access to the facilities in the basement of ET will be opened to allow all IUPUI students unfettered access to the facilities during classroom and lab open hours. Afterhours access mechanisms will be maintained by CNC.
    f. Any variance from the total projected STF funding will be covered or retained by UITS.

**MOU and exact labs and cost still under review

Attachment 3: Concept Paper Multidisciplinary Ph.D. Degree Program

Concept Paper
Proposal for a Multidisciplinary Ph.D. Degree Program at IUPUI
September 24, 2009

1. Name of proposed new program: Multidisciplinary Ph.D. in Sustainable Development

2. Conferring Institution: Indiana University

3. Degree Home: IUPUI Graduate Office

Note: Many universities are now housing multidisciplinary degrees in the graduate schools or graduate offices. Examples of these include SUNY Buffalo, Portland State, and University of Georgia at Athens.

4. Schools involved:
    a. Public and Environmental Affairs
    b. Business
    c. Liberal Arts
    d. Engineering and Technology
    e. Science

5. Rationale and objectives

Contemporary research often requires an interdisciplinary approach, and many of the new research frontiers are at the boundaries of multiple disciplines that previously had little or no intersection. Training of PhD students along the old disciplinary lines are outdated in many fields, and the need for a multidisciplinary training is especially keenly felt in the area of sustainable development as it touches upon diverse disciplines such as sustainable energy, sustainable design and manufacturing, environmental science, economics, and public policy.

For example, a Ph.D. student dealing with energy systems will not only have to consider the efficacy of the particular technology from a scientific angle, but will also have to consider its life cycle impact on the environment, its economic and social impact, and its political and policy implications. A student of bio-fuels will not only have to be familiar with the fuel's heat of combustion content, but also its biological origin and its conversion from biomass into fuel, and will need a foundation in science, as well as biology and chemistry. Examples like these abound, pointing to a need for a new category of Ph.D. program in lieu of the traditional Ph.D. in, say, Chemistry, Biology, Economics, Engineering, Environmental Science, etc.

To address this new need, we propose the establishment on the IUPUI campus of a new Multidisciplinary Ph.D. in Sustainable Development program as a collaborative effort among the Schools of Engineering and Technology, Science, Public and Environmental Affairs, and Business.

There is a national trend among higher education institutions to establish multidisciplinary Ph.D. programs. Examples include the Harvard Multidisciplinary Ph.D. Program in Inequality and Social Policy, the Multidisciplinary Ph.D. degree directly awarded by the Graduate School at the University of Wisconsin – Milwaukee, the Multidisciplinary Ph.D. offered by the School of Earth Sciences at Stanford University, and the Multidisciplinary Engineering Ph.D. Program at University of Alaska, Fairbanks. Northwestern University has three multidisciplinary Ph.D. programs in the life sciences. Internationally, multidisciplinary Ph.D. programs are quite common in many European countries.

6. Curriculum

Admission to the Ph.D. program is normally granted to students who have completed a master's degree. The program allows exceptional students with bachelor's degree be admitted directly into the PhD program and attain a master's degree while in the program.

A Ph.D. student is expected to take 21-30 credit hours of course work in addition to Ph.D. dissertation research credit hours and in addition to a minimum of 30 credit hours earned during a master's program.

A core curriculum will be provided jointly by the participating schools.

7. Employment opportunities for graduates

The graduates from the program will be prepared for industry, government, and academic positions. Both industry and government agencies are placing more emphasize on sustainability. Most of the major companies in the US and Europe have established sustainability offices within their organizations, and sustainable development are crucial for both Federal and local governments and their agencies. As demands in industry and government increases, so will it in academic institutions. It is envisioned that a interdisciplinary PhD graduate from this program will be conversant in the basic science, applications, economics, and policies of sustainable development that they may choose to specialize in any of the above and grow a career in that specialization.

8. Proposed starting date: August 15, 2010

9. Relevance to IUPUI's mission

IUPUI is recognized as an urban research campus by the Indiana Commission for Higher Education. Research activities have grown considerably during the past decades. The proposed multidisciplinary Ph.D. program will help enhance the research capabilities of the campus and help IUPUI find its own niche in multidisciplinary research.

10. Relationship with existing programs

IUPUI currently offers discipline-specific Ph.D. programs in the Schools of Science and Engineering through individual agreements with various Purdue West Lafayette schools and colleges. These agreements restrict advisory committee participation to faculty members mostly from a single school/department, and are not conducive to the multidisciplinary research required by modern day issues and problems. The new proposed program will therefore serve as a much needed complementary venue for faculty research and for student training.

11. Relationship with similar programs in other Indiana institutions

There are a few Purdue WL and IU Bloomington multidisciplinary Ph.D. programs; however, these programs are mostly still housed within a particular school and are designed to address the need with a particular field. The proposed IUPUI program aims to address the need of truly cross-school, multidisciplinary research, such as energy systems, nanotechnology, climate change, and sustainability, where researchers from widely divergent disciplines, such as engineering, science, business, and policy studies, are required to work together. As a result, the proposed new program will not directly compete with any of the existing programs at IUPUI or at other Indiana campuses.

12. Resources needed

The new program will use existing faculty and lab space with minimal needs for office space to house the additional students. Some resources will be needed for administrative infrastructure and program advertising.

Attachment 4: School of E&T, Salary Guidelines

School of Engineering and Technology, IUPUI
Salary Guidelines
Approved by the E&T Faculty Senate
November 10, 2009

The School of Engineering and Technology at IUPUI recognizes a faculty member's commitment of time and intellectual resources with appropriate compensation for teaching, research, professional service, university and campus citizenship, and, when applicable, administrative activities. Employment as a faculty member presumes a primary commitment of time and intellectual resources to the academic mission of the School and its functioning as a community. To ensure that faculty members are appropriately compensated, that their salary components are clearly communicated, and that their activities are properly recognized, the School has developed the following salary guidelines.

These guidelines are consistent with the Indiana University Academic Handbook and related policies and procedures concerning faculty affairs (http://www.indiana.edu/~vpfaa/policies.shtml). Where conflicts or inconsistencies arise, the Indiana University Academic Handbook is the controlling document. The Dean, with approval from IUPUI Campus Administration and in compliance with federal/state/local laws and University policies, is responsible for all matters related to faculty compensation and is the only School official authorized to approve faculty compensation payments.

The School strives to adhere to compensation principles of internal consistency, market competitiveness, and the recognition of individual meritorious contributions. *Internal consistency* refers to the School's approach to using standard methods for evaluating faculty members' performance and determining salary increases. *Market competitiveness* refers to the School's ability to use compensation as a means of attracting, motivating, and retaining faculty members in relationship to its institutional peers; it also refers to the differences and distinctions within and between disciplines. *Recognition of individual meritorious contributions* refers to the School's desire to differentiate faculty members' compensation decisions based on the annual performance of individual faculty in his/her assigned area(s) of responsibility.
Faculty compensation is comprised of one or more of the following components:

- *Academic base salary* This represents the 10- or 12-month budgeted base salary, and the recipient receives the applicable retirement benefits from this compensation; this compensation is subject to applicable tax withholdings. The School will recognize career advancements/promotions through the awarding of additional base salary compensation.
- *Administrative supplement* This represents additional compensation received for administrative duties; such supplements are discontinued when administrative duties cease. Retirement benefits do not apply, but compensation is subject to applicable tax withholdings.
- *Summer compensation* Based on available resources and consistent with School/department guidelines, summer compensation is applied for teaching, research, and/or service activities. Retirement benefits do not apply, and compensation is subject to applicable tax withholdings.
- *Bonus compensation* Based on available resources and consistent with University/School/Department guidelines, this form of compensation recognizes special or extraordinary efforts and accomplishments on the part of faculty members. Retirement benefits do not apply, but compensation is subject to applicable tax withholdings.
- *Teaching overload compensation.* From time to time, enrollment demands may create the need for faculty members to teach additional courses above their normally-assigned teaching load. In these instances, and with prior approval of the chair and dean, full-time faculty members are eligible to earn overload compensation for assuming additional teaching duties. Compensation will be based on an appropriate portion of the faculty member's academic year salary. Faculty members are typically

limited to a maximum of two overload payments per academic year and are expected to meet minimum performance expectations in other aspects of their work (e.g. research; service/engagement) while receiving teaching overload compensation.

The salary guidelines for the School reward faculty for meritorious performance. In the context of these guidelines, "meritorious performance" is defined as the quality of a faculty member's performance as it relates to assigned responsibilities. For the purpose of these salary guidelines, "faculty" includes the following full-time ranks:

- Professor
- Associate Professor
- Assistant Professor
- Clinical Professor
- Clinical Associate Professor
- Clinical Assistant Professor
- Senior Lecturer
- Lecturer

Based on available resources, a pool of funds will be set aside annually for faculty *academic base salary* increases**.** Determinations of the relative quality of a faculty member's annual performance will be made in accordance with the School's evaluation procedures. The Faculty Annual Report will be the principal document for determining a faculty member's performance, and evaluation will include input by the faculty member, Department Chair, and Dean. Using this approach, a faculty member will be evaluated annually in the areas to which he or she has been assigned (teaching; research; professional service; and university and campus citizenship) and in accordance with the performance expectations of his or her appointment and rank.

Evaluations of the quality of one's annual performance for salary purposes will be distinct from evaluations for promotion and/or tenure, which are based upon sustained long-term performance. A faculty member might not satisfy all the conditions for a favorable recommendation for promotion and/or tenure, but might nevertheless deserve a salary increase based upon quality of performance in assigned areas of responsibility for a given year. In other words, a faculty member's annual contributions in any assigned area will be evaluated and rewarded; however, such evaluations and rewards should not be viewed as an implicit or explicit endorsement of a faculty member's progress toward promotion and/or tenure. Additionally, any faculty member receiving a salary increase because of promotion would still be eligible for a merit-based increase in this context.

With the resources available, the Department Chair will recommend to the Dean the salary increases for faculty members, based on the Faculty Annual Report and the Chair's own evaluation of a faculty member's work. (When no raises were awarded in the previous year(s), the evaluation may include those years of reports and chair's evaluations.) The Dean will review all recommendations of increases, make adjustments if necessary, and forward them for review and final approval to IUPUI campus administration and, ultimately, the IU Board of Trustees.

Attachment 5: E&T Undergraduate Education Committee Report

E&T Undergraduate Education Committee
REPORT TO FACULTY SENATE
10 November 2009

New Course Request: ECE 26200 Engineering Programming Lab

This one-credit course is the lab component supplementing an existing three-credit course.

DISCUSSION: This committee and Faculty Senate originally passed a 4-credit version of this course (a sophomore-level computer programming course) last year. However, during remonstrance, Computer Science protested that they already offered a four-credit course covering similar material. ECE will instead offer three credits of lecture under an existing number, plus this new one-credit lab component.

The committee voted unanimously to recommend this new course for approval by Faculty Senate.

Discussion of requirements for direct admits to ENGR/TECH

Based on the recent increase in indicators for incoming students to the campus, do we want to increase the standards for direct admission to our ENGR/TECH programs?

DISCUSSION: Nancy Lamm advised that because we have just clarified the TECH admissions standard in a way that may lead to many more direct admits to TECH, the freshman advising team would like to wait to see what the new cohort of direct-admitted students looks like next year before making any additional changes to the TECH requirements. In particular, TECH has traditionally not had very many direct admits; however, the clarification of admitting students meeting either the GPA OR the SAT/ACT requirement (rather than requiring both) may significantly increase these numbers.

The freshman advising team further advised against increasing the GPA requirement (currently 3.0) for direct admission to ENGR, as evidence suggests this requirement is already more stringent than the class rank requirement (top half of high-school graduating class) that stood for a number of years before the recent clarification.

Nancy provided some historical perspective on the existing ENGR requirements, which have been in place for more than 20 years: these standards (minimum SAT-M 520, minimum SAT-V 480) were the old published admissions standards for Purdue West Lafayette. These standards pre-date changes to the SAT such as adding critical writing and re-normalization of scores. West Lafayette no longer publishes any standards, instead saying that they consider students on a case-by-case basis according to evidence based on their GPAs, test scores, extracurricular activities, etc.

Raising the standards for direct admission to ENGR means that some students who formerly would have been admitted directly to ENGR will instead be admitted to UCOLL. Nancy provided some perspective on the difference between being admitted to ENGR and UCOLL: because UCOLL deals with students who are more likely to be unprepared for college, they apply very strict rules in placing students into classes. UCOLL students who place into MATH 111 on the Math placement test, for example, will be placed in that class even if they were only one point away from placing into the next highest level. Freshman Engineering, in contrast, considers the student's transcript and works with the Math department to allow some flexibility: students who have had some high-school calculus and have scored above 600 on the SAT-M, for example, may start in calculus even if they performed poorly on the math placement test.

Nancy Lamm estimates that raising the Math SAT minimum requirement from 520 to 550 would result in about 5 to 10 enrolled students per year who previously would have started in ENGR instead starting in UCOLL.

The question before the faculty, then, is: do we want to raise admissions standards for direct admission to ENGR, and if so, what is our goal in doing so? Since students admitted to IUPUI have the opportunity to satisfy freshman engineering requirements and move into our programs even if they are not directly admitted, what would an increase in ENGR admissions standards gain us?

The Undergraduate Education Committee offers these questions as discussion points to the faculty. We will consider the responses of the faculty and will offer a recommendation to the Faculty Senate at a future meeting.