

**PURDUE SCHOOL OF ENGINEERING AND TECHNOLOGY**  
**Faculty Senate Minutes**  
**December 8, 2009**

Representatives in Attendance: Doug Acheson, Karen Alfrey, Sohel Anwar, Ed Berbari, Debra Burns, Jie Chen, Rongrong Chen, Elaine Cooney, Jan Cowan, Yingzi Du, Hazim El-Mounayri, Eugenia Fernandez (alternate), Cliff Goodwin, Connie Justice, Nancy Lamm (alternate), Roberta Lindsey, Emily McLaughlin, Ken Rennels, Steve Rovnyak, John Schild, Erdogan Sener, Joy Starks, Bill White

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

Presiding: Ken Rennels, Faculty Senate President

Meeting began at 11:05 a.m.

Ken Rennels asked everyone to look at the agenda for the meeting; Ken noted a minor change and the agenda was approved. Rennels also noted there are times now noted for each report on the agenda.

Ken Rennels asked everyone to look at the minutes from the November 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 November 2009 minutes; all approved.

Ken Rennels advised that Wanda Worley, along with Ed Berbari, Cliff Goodwin and Deb Burns, is also an IUPUI Faculty Council member.

**Administrative Report**

Dr. Yurtseven advised Faculty Senate of the following:

**Academic Programs:**

Enrollment for the spring semester looks good so far; both student credit hours and headcount increase are up around 6% as compared with last year at this time.

The Energy Engineering proposal did not make it through the December Purdue University Board of Trustees meeting; the proposal was not on their agenda. The proposal should be on the agenda for the February meeting.

**Grants and Contracts:**

Steve Rovnyak (ECE): IPower, Supplement Research Award, 9/1/2008-10/25/2010, ICR: \$9,117, Total: \$26,000

Afshin Izadian (ENT): IND-OED, New Research Award, 9/1/2009-2/28/2010, ICR: \$1,644, Total: \$9,989

Patrick Gee (NSAAC): US Navy, New Support, ICR: \$2,909, Total: \$12,000

**Faculty News:**

Jian Xie (ME) and Meixian Wang (ME) submitted innovation disclosure to the IU Office of Technology Commercialization

### **Science and Engineering Research Complex (SERC)**

The money has been allocated for this building, early planning has started, and the architect's office is working on this also. Dr. Yurtseven advised there will be more space planning meetings coming up. This will be a \$20M building for Phase I; the building has to be 60% research since research dollars will pay on the building. The campus will pay \$2.2M per year for the mortgage, \$1M will come from campus, \$1.2M will be shared by the two schools in proportion to the space each occupies.

Dr. Yurtseven advised he is not sure how the Angel funds will be used for this building; the school is in process of confirming this. Dr. Yurtseven speculates that \$5M from Angel funds will be used for the building. These funds will help the school get more space or pay less on the mortgage.

### **Events:**

International Motorsports Show and Exhibition took place December 2-3, 2009 at the Indianapolis Convention Center. Pete Hylton gave Dr. Sukhatme and Dr. Bantz a tour around the exhibition and they were both impressed; this was a connection for them to keep Motorsports on their radar screen. This is the first time it was held in Indianapolis, and there were unexpectedly large crowds.

The Spring 2010 Faculty and Staff Convocation will be on Thursday, January 7; Dr. Yurtseven advised they are finalizing the agenda and an email will be sent out soon.

### **Budget:**

The governor previously reported shortfalls in tax revenue of \$254M for September 2009, \$46M for October 2009 and \$144M for November 2009. Last Friday the governor asked for \$150M cut from higher education. The Indiana Commission for Higher Education will submit a plan to the governor within a month. IU and Purdue are using the angle advising they have already done some cuts. Dr. Yurtseven advised 6% cut will be around \$500,000 for our school. It is not clear when the governor wants the funds back; we have not received any direction from campus yet.

Steve Rovnyak asked if the indirect costs used to pay the debt for the building is in addition to the \$700K a year to fund the activities for the Associate Dean for Research; Dr. Yurtseven noted this is from the base, have to generate more or give all of it to the base. Jan Cowan asked about the location of the building; Dr. Yurtseven advised we have requested the building be located near the SL and ET buildings, but the location has not been finalized.

*For further details of the Dean's Report see Attachment 1.*

### **Associate Dean's Report**

Stephen Hundley presented the following report (see Attachment 2):

Stephen Hundley advised his report would be brief, and a lot of the information was presented at the CDD meeting recently.

Hundley noted the enrollment is up for the spring, nearly 7%; breakdowns per department/program will come out in the near future.

RISE working groups and GREAT Environment working groups have been meeting; reports will be forthcoming this spring. RISE is looking at how we can embed pre and post reflection since this is a campus requirement for many RISE initiatives. The group is looking at developing a framework for helping faculty to drop in some pre-work and post-intervention reflection.

Hundley noted we did the Oncourse engagement survey; response not real high and will report findings in January.

ABET is underway.

Brief note about Early Warning; the Registrar is asking for any undergraduate course to provide some feedback early to students around their attendance; if you have a chance to do a low stakes, yet representative assignment early in the semester, try to do this as it makes sense for your course. The Advising Center is taking the lead on this for the spring, and ME is test piloting an intervention process and working with the Dean's office on this program. There were some missteps from the campus level in the fall so the data was not archived; they have corrected this so there will be archives for the spring.

The National Survey for Student Engagement is noted in Dean Hundley's report, as the campus participates in this survey every three years. Hundley did not summarize the strengths, but noted there is room for improvement especially around critical thinking and higher level interventions that we ask our students to participate in. Hundley asked everyone to think about making sure your course is challenging as you develop and refine your courses for spring. If you have high challenges, yet achievable stretch goals for students to participate in, the course will have a positive impact both on retention and GPA. Our students will rise to the level of performance that is required. The E&T specific results of this information were distributed at the CDD meeting last week.

Hundley noted a separate PDF file titled, "Knowing IUPUI Students" was developed by the Institutional Research and University College and will be distributed with these minutes. It is a factoid sort of quiz asking how much you know about our students. Hundley noted for those of us who have been around five, ten or more years or longer our assumptions around our students may be a bit outdated. Hundley encouraged everyone to look at the information, which shows how the IUPUI student population is changing, largely because we are making a large number of referrals to the community college.

Events with regard to faculty development:

EC Moore Symposium on Teaching Excellence: Thursday, March 4, 2010, 8:00 am – 5:00 pm, Campus Center – proposal submissions deadline is December 11. Hundley noted a few colleagues have worked with him to develop some proposals. This is a great place to have your Scholarship of Teaching and Learning displayed and distributed and to receive feedback from local peers.

PUL Symposium: Monday, February 1, 2010, 9:00 am – 3:30 pm, Campus Center 409.

### **Associate Dean for Graduate Programs and Research**

Ken Rennels advised Andrew Hsu was not able to attend the meeting, but forwarded a report (see Attachment 3).

Rennels noted in terms of graduate programs and research, the numbers are positive. The awards we received through November of this year are over \$5M compared to \$2.1M last year. There are some positive trends in the Graduate Programs and Research areas.

## **Budgetary Affairs Committee**

Razi Nalim presented the following report and advised the Budgetary Affairs Committee has met several times this semester. The Dean advised of two items the committee has been discussing, the state budget and how it will affect our school and the research plan complex.

At the beginning of the academic year the committee thought that we would meet the initial budget shortfall that was predicted, because of the increase in enrollment and tuition income, and would be able to adjust the base budget and still be able to look at spending on some priorities. There was discussion about the priorities. Will have to revisit to look at additional cuts possibly; not sure priorities will be possible at this time.

Some of the budget priorities included:

1. Many members discussed – salary raise, not happened in significant way in past years
2. Additional positions to help with teaching load, when departments have research funding and research faculty
3. Move associate faculty to base
4. More resources for research
5. Salary raise for staff
6. Look at growth areas, and invest more in these areas

There were others, but these were the top ones discussed. Referring to the growth areas, the committee identified these by looking at the balance sheet for each program, and looking at the income and expenditures, from the balance sheet information from one year ago. This year it is at the preliminary stage and the committee is in process of developing this; will continue to try to improve this.

Nalim advised from the Campus Budgetary Affairs committee there was discussion on a number of items. Nalim advised the committee was meeting later this afternoon, and he distributed information on the IUPUI priorities for 2010-11 to Faculty Senate during the meeting. Ken Rennels noted on the first point, felt the word “teaching” should be added to the information (mainly mentioned research). Ed Berbari noted that campus does not distinguish faculty roles like our school.

## **Computing Resources Committee (CRC)**

Connie Justice advised the Business Continuity Team has been working hard and hopefully departments have been meeting to discuss this.

The deadline for the Business Continuity planning is January 31<sup>st</sup>. Justice noted the committee will take what they currently have and make sure we are headed in the right direction. This is the first reiteration, and our school is the first group in the IU system to use the Business Continuity planning tool. The committee is doing the best they can with what they have, realizing there will be a revision two for this information. The committee is moving along, very difficult process. Justice advised the team members should be thanked because they are putting in some time for this planning process.

## **CNC and TST Update**

Elaine Cooney presented a CNC/TST Taskforce update (see Attachment 4).

Committee members were highlighted, Cooney noted the work of the committee was very insightful. The committee worked with Human Resources, UITS and Campus Facilities. The committee was tasked and

constituted by Dean Yurtseven at the beginning of the semester to look at some of the issues that we are having with our technical services in our school, both computer related and technical service related as well. The committee met, shared stories, and met with all of the CNC and TST staff (all but one). The committee interviewed each one to hear what their struggles and successes were. The committee then summarized the information and came up with recommendations. Some of the recommendations included:

- Improving communication
- Need more staff
- Sometimes staff struggle with work, how to prioritize requests
- Technical services staff – outdated job descriptions, need to be revised
- Need better management of ticket request systems for our technical staff. CNC is currently using Footprints, which does embed some feedback to the requester, but right now our technical staff does not have any feedback they can give their customer.

Very important to the committee work is the work that the CRC group is doing in moving some of the funding and responsibility for our Student Technology to UITS. Cooney has been working with Connie Justice, who presented results of the Computing Resources Committee findings to Faculty Senate in November. Dean Yurtseven has been working with Garland Elmore to develop a memorandum of understanding.

The importance to the Task Force because of this is that approximately half of the seats that CNC is currently responsible for will now be moved to UITS. The CNC/TST Taskforce believe this is a great opportunity to free up some of our own technical and CNC staff to help with some of the other projects going on in our school. Cooney and committee feel that part of the problem of having too little staff or too much work will be reduced because UITS will oversee a big chunk of the seats that CNC is currently responsible for.

The report from CNC/TST includes recommendations for what they see as the mission for CNC. The committee sees research, teaching and service in the form of desktop support to faculty, as they went through part of CNC's responsibility. The committee also believes we need good coordination with UITS. The committees noted we have UITS in the network, connecting us to the rest of the world wide web, we have CNC that has been working in our own school, and we have local support providers in our own departments that are serving oftentimes for our own teaching laboratories and sometimes our own desktop and research environment.

Committee recommends that UITS is working hard to take over commodity computing; commodity computing meaning student labs where all of the computers are the same build, printing, email service; UITS is working to take these areas over. The committee is proposing to allow UITS to take this over, and let CNC move back closer to specific special needs of E&T in engineering and technology, research and teaching and free up our local service providers to do even more of this specialized support.

Committee recommends looking to UITS to partner with the school to supply a full time director for our CNC. Cooney advised the committee proposes the person be brought in from UITS and should have management experience with supervising both technical computing staff and technical computing services in order to tune up our system that we currently have and move us forward.

Committee recommends the technical service support and staff remain the same; department technicians will still report to their department chairs, and the CNC director will continue to work to facilitate cooperation between CNC and TST. With the CNC director with ties to UITS, the committee suggests

that ½ be paid by E&T and ½ be paid by UITS. This should facilitate our school leveraging whatever UITS can offer us, and free up our resources to work on specific areas that can only be done inside E&T. The committee also recommends that TST be switched to the Footprint system; this system is the report system that CNC and UITS use, that does include feedback as it goes through.

Cooney advised a key message to the Faculty Senate from the TST is that it is very important that faculty use the system and give the technicians as much forewarning as possible. The technical staff do plan their work and it is very disruptive when faculty stop and ask them to do things at the drop of a hat. TST is asking faculty and staff to use the request system so they can prioritize their work based on the big picture and not on the needs of the individual faculty member.

#### *Comments/Discussion*

Sarah Koskie advised the Footprints system does not work well with external email forwarding; Koskie has reported this to UITS.

Cooney noted that UITS is very committed to making E&T a showcase on how well they can support a school; they are very excited to work with us in our student labs, helping with high powered research computing, and there are a lot of initiatives they are looking forward to doing with us.

Connie Justice stated that we have discussed the fact of centralizing and decentralizing the labs in schools; knowing that the ultimate piece of the puzzle is that you have to have a mixture of decentralizing and centralizing computing service, and we are trying to reach a good balance so that we can have ultimate good service to the school and then the bulk or common computing areas be done by UITS. The school will work through this as time goes on; this will be the model we will use, will need to have a mixture of areas working together, the school and UITS.

Cooney advised these are the recommendations the committee has submitted to the Dean; the Dean is working out some of the details with UITS. Cooney noted the committee is presenting their recommendations to Faculty Senate to get buy-in of the process and any other recommendations.

John Schild asked if the memorandum of understanding would be forwarded to CRC. Justice advised the memorandum would be distributed, but waiting to finalize the document.

Razi Nalim questioned releasing of space; Cooney advised the task force just looked at staffing and organization. The task force did not look at any space issues in any way; the only space that was considered was what was addressed last month from the CRC recommendations.

Eliza Du asked for an incentive for staff who responds to issues quicker than others. Cooney advised one of the reasons for using the Footprints system is they can now get reports on the response rate. Currently the request goes to the technician and the paper trail ends there.

Koskie questioned the issue of having CNC take care of those things that will be dealt with locally; will they need more training to look at more complex tasks; Cooney noted we are looking at this as a continuum. We will have a local support provider that you need for your lab or department, then we have CNC and then we have UITS. It is up to faculty to work with CNC or negotiate the needs of your research laboratory on what your level of support is; if it cannot be managed by CNC or you need someone present more then you may want to employ someone else within your laboratory.

Eugenia Fernandez asked about the selection of the director, if there will be a search committee. Dr. Yurtseven noted this is not real clear yet; may be a temporary one semester assignment to see how things

work out without going through search. Dr. Yurtseven believes the current UITS manager position will include this role, and his/her job description will be modified. In all likelihood there would not be a search. Fernandez wondered if there would be a faculty or committee, for suggestions with regard as to who we are taking from UITS. Dr. Yurtseven advised the person from UITS would report to the Dean, and the Dean has advising coming from CNC. Dr. Yurtseven is hesitant to have someone permanent from UITS.

Marj Rush-Hovde questioned #4 and #5 on the CNC/TST report. Cooney noted to imagine that there are some labs in the lower level of E&T that have some computers in them and software kits installed in them, but there is nothing special about those boxes; compare these labs to ET 224 or ET 216 where there is additional hardware installed in the boxes. The hardware as well as the software is specialized. Cooney noted this is what #4 and #5 were referencing. Basically saying that sometime the labs are for the school or they can be specific to a department, if specific to a department you may have a local support provider employed by the department, but they would have to work with UITS.

Sohel Anwar questioned #2 and #3, Cooney noted if you purchased hardware that has to interface with a computer, your technician may be responsible for that hardware, and therefore they would have to interface with CNC in order to get the computer to interface with the hardware. For instance, in ENT their technician is also their local service provider; she does both.

Koskie noted one concern she has is that more and more frequently she is being told by UITS to ask her local service provider to answer questions that UITS cannot answer. Cooney noted we are trying to allow UITS to come in and do the commodity computing that our local support providers have been busy doing to free up our local support providers so they can handle our local needs. Marjorie is a local support provider for most of our desktop machines; Kyle and Anna are local support providers for a lot of the teaching laboratories in their departments. We will then look at CNC to provide the local support for the research labs, and if that need is too great, then the research labs will need to look at employing someone as part of their research budgets just as they would employ additional technical support for a large scale project.

**Constitution and Bylaws Committee** - No report

**Graduate Education Committee**

Hiroki Yokota advised the Graduate Education Committee met on November 30<sup>th</sup>; he presented a brief report.

1. GRE requirements – after discussion the committee decided to require all Graduate program applicants to take the GRE. However, the committee will allow some exceptions during the transition period. Individual departments can allow some students to apply for a waiver or substitute by other exams such as MCAT or GMAT.
2. Out of state tuition supplement – applies to out of state domestic student; decided to request the Dean to provide out of state tuition supplement to graduate students who are supported by 22 accounts. The same criteria for the supplement to the students supported by research grants will be used.
3. Degree auditing – the committee decided that degree auditing should be done by individual departments; Valerie Lim-Diemer will provide a workshop next semester and assistance to department faculty or staff who will be involved with this process.

4. Graduate Committee membership – Hiroki Yokota spoke with Sarah Koskie; Graduate Committee membership needs to be re-visited. Currently, the committee members are coming from all of the divisions even without graduate degree program; some departments send members who are not a departmental committee chair. Yokota has requested to draft an amendment for membership.

Other items the committee is discussing include:

- Minimum GPA guidelines for admissions; some departments are accepting a 2.5 GPA for the graduate program. The Graduate Committee is working to make a guideline.
- Responsible conduct of research training – IU is developing an internet training program.
- Graduate transcript for 5-year BS/MS program in ME and ECE; most of the transcript covers BS information; if you see the MS transcript there are not many classes listed; some concern on the ECE side to look at this issue.

**Grievance Board** – No Report

### **Faculty Affairs Committee**

#### *Course Coordinator Description*

Marj Rush-Hovde advised the Course Coordinator description was read and discussed during the November Faculty Senate meeting. Rush-Hovde noted the Course Coordinator description was motivated by the fact that we have course coordinators and there is a great deal of diversity in what they do; faculty are not sure how to note this role in their annual reviews, tenure and promotion documents, etc. Rush-Hovde read the document to Faculty Senate.

Roberta Lindsey questioned the “overseeing assessment for ABET” item, and noted there are two other assessment groups, NASM and CIDA, questioned if they should be included in the statement. **Lindsey noted changing the item to “overseeing assessment, as needed.”**

#### **Faculty Senate unanimously approved the above noted change to the Course Coordinator description.**

Sarah Koskie questioned the rationale regarding “address disagreements between students and instructors...” Rush-Hovde noted this would be the initial person to talk to if there is an issue between student and instructor. Koskie believes chair is the only person who has power to deal with issue. Rush-Hovde advised if the instructor and course coordinator cannot resolve the issue then it would go to the chair. Eliza Du also notes that chair should be responsible for student/course issues. Ed Berbari is questioning what type of disagreements students and instructors have. Eugenia Fernandez advised students come to the chair or course coordinator because a part time instructor is not replying to emails quicker, grading items in a timely manner, etc.

Sarah Koskie asked whether faculty who disagree with suggestion would want to delete the point. There was a proposed amendment to delete the item “addressing disagreements between students and instructors of the course.”



Ken Rennels called the question as to those who wanted the item “addressing disagreements between students and instructors” deleted. Only 7 Faculty Senate members wanted the item deleted. The rest were in favor of keeping the item. The amendment did not pass.

Karen Alfrey proposed the amendment adding the wording “providing the first point of contact for”

Stephen Hundley noted the decision making should stay at the lowest possible level so issues can be resolved quickly for the best interest of the student.

Hundley noted the pragmatic recommendation would be for the course coordinator, chair and student to meet together to get the issue resolved; we may be micromanaging the language. Rennels noted faculty should have an understanding of the grievance and disciplinary process within the IUPUI system, and can give options to students.

Ken Rennels called the question regarding the following Amendment – **add “providing the first point of contact for” to line item “addressing disagreements between students and instructors of the course.”**

**Faculty Senate unanimously approved the above noted change to the Course Coordinator description.**

Steven Rovnyak wanted to add “part-time” wording in front of the *instructor* to the “addressing disagreements between students and instructors of the course”; Faculty Senate did not approve this.

**Faculty Senate unanimously approved the Course Coordinator Description as amended.**

Rush-Hovde advised she will put the final document on the website under the faculty link; good resource.

See Attachment 5 for the Approved Course Coordinator Description.

*Guidelines for Peer Review of Teaching*

Rush-Hovde noted the Guidelines for Peer Review of Teaching have been discussed in a past meeting. The major change to the document was clarification of a few points and a description was added on how online teaching may be evaluated; understanding for this is that these are general school guidelines, departments are requested, expected, encouraged, to make more specific guidelines, specific to their mission, etc.

Rush-Hovde was submitting the document for action. Rennels asked if there was any discussion on the revised draft; document was first approved in 2002. Rennels asked if the updates were highlighted, they were not.

One of the main revisions is the sentence under C. Guidelines, “Both on-line and classroom performance and course materials...” and a few other points of clarification.

Eliza Du noted the guidelines are important to faculty and would be good to know the exact changes. Rennels noted the document was sent out last week with the agenda for faculty review.

Rush-Hovde advised she would highlight the changes and bring the document back to Faculty Senate in February 2010. The Faculty Affairs Committee will table the request for now.

## *Miscellaneous*

In general the committee is continuing to work on revising the P&T Guidelines. The committee had a productive meeting recently. Rush-Hovde will make the revisions and distribute to the unit board and the Dean for their feedback to make sure they are consistent with the IUPUI guidelines. The P&T guidelines from our school have not been revised since 2004. The committee is making some fairly major revisions. Rush-Hovde asked Faculty Senate to read it closely and compare it to the old document.

Ed Berbari noted the Vice Chancellor has asked everyone to have department criteria, questioned if school criteria are needed as much; Rush-Hovde noted we will still need school criteria; encouraging departments to make more detailed criteria for their department and mission.

The guidelines will include MAT and will add clinical and research lines, because these items were not in the old guidelines.

Dr. Yurtseven noted that departmental expectations were sent to campus, were reviewed and returned with some suggestions; chairs now have to discuss with their faculty members. Dr. Yurtseven advised he would forward the information to Rush-Hovde to share with the Faculty Affairs Committee.

Stephen Hundley questioned if these are Mary Fisher's suggestions or are they more? Dr. Yurtseven believes that they are suggestions from Mary Fisher and it is up to faculty to accept those suggestions. Department faculty should look over; but campus needs to be on board with the decisions made by our school.

## **Nominations**

**Resource Policy Committee** – No Report

**Student Affairs Committee** – No Report

**Undergraduate Education Committee**

Karen Alfrey advised there are one action item and two information items.

Honors minor in Leadership being jointly proposed by OLS and the Honors College. See attachment 6 and 7 for Honor Minor in Leadership information.

Cliff Goodwin advised OLS would like to partner with Honors College to encourage and recruit the finest students we can; OLS put together a minor for those students. Also this would be a good tier system into our Masters program. OLS already has the option of honors courses that they are proposing as part of the minor, but it is not currently offered as a minor, just offered as part of Honors courses. OLS is now trying to formalize this into a minor. Goodwin advised this is another step for our school to attract and retain the best students we can. OLS has met with the Honors College and they are on board and positive about the minor. Goodwin is asking Faculty Senate for approval.

Stephen Hundley advised anyone who is admitted to the Honors College, which they target a lot of Engineering and Technology students, has to take 24 hours (x number of hours) that have Honors specific courses. There are a range of honors courses around the campus, one of the challenges is there are not any packaged opportunities focused for Honors students.

Eliza Du stated that the honors courses and programs are great for students. She shared some information about the honors program that she learned from Dr. Luzar, the Dean of Honors College. There are several ways for students to take honors courses, such as one extra credit for regular course, honors seminar, honors independent study, etc. Goodwin noted this is different than these processes. Goodwin advised the Honors Leadership Minor credits will only have honors students in the courses. Goodwin noted this is the first minor offered from the Honors College, will be a nice opportunity for students and school. Karen Alfrey advised the Undergraduate Education Committee recommends the minor for approval.

**Faculty Senate unanimously approved the Honors Minor in Leadership.**

Karen Alfrey, ME and Motorsports have agreed on a 5-year dual degree program leading to BSME and BSMSTE Dual Degree. The dual degree plan does not require approval since neither program is new.

Jie Chen advised basically there was a need for the degree from the students. We have a good motorsports program, and the students were requesting a broader program; looked at curriculum and formed the degree. See attachment 8 for BSME and BSMSTE Dual Degree information.

Alfrey advised the other information item is a reaffirmation of endorsement for articulated credits from Ivy Tech. We have an existing agreement with Ivy Tech that allows technical credits that have been earned through certain Ivy Tech Associates of Science and Associates of Applied Science degrees to be brought in as undistributed tech credit that show up on the student's transcript. Bringing the courses in that way means that they are not necessarily automatically applied in place of the IUPUI course, but it gives programs the freedom to use those credits as they see fit if they meet the requirements for the plan of study. See attachment 9 for the Reaffirmation of Endorsement information.

**IUPUI Faculty Council**

Ed Berbari advised the IUPUI Faculty Council met on Tuesday, December 1, 2009.

The Chancellor discussed the Wishard referendum that passed. The first item they will build is a parking garage. This will not affect us.

However, the school will begin building a new parking garage near us; the bids are in and they will start building this as soon as possible.

The Chancellor reported to the trustees, included a presentation on the campus; report also includes parking issues, timing for students to get to class; and using the Master Plan asked for support for facilities to help with these problems and others.

Budget hearings for the campus are happening in the spring; will present on two Saturdays. There is nothing new in the budget, but now the governor has made his statement since this.

Faculty Council President Simon Atkinson gave his presentation. Simon Atkinson pointed out the Chancellor review process is coming to fruition.

UFC is working on review procedures for deans of core schools that work on both the BL and IN campuses.

The University VP for Research candidates were on campus the week of December 1<sup>st</sup>. Ed Berbari advised he has attended some of these meetings.

The faculty in E&T have been concerned about the universities policies on publication which keeps them from accepting contracts on export control on research; spoke positively to getting something done along these lines.

The Handbook committee on this campus and the draft of the new version of the supplement is almost ready.

School of Public Health at IUPUI is moving forward.

One action item is every two years Faculty Council has the Determination of “N”; this is the number of faculty that they determine Faculty Council representation from. The recommendation from the EC is to maintain N as 51 which is unchanged from the previous N.

There was a big discussion about tenure clock extension policy. There is still some issue as to whether this is an administrative policy, and does not need faculty council approval; Mary Fisher presented the information from the Executive Vice Chancellor Sukhatme’s office. This has to do primarily with the competitiveness of medical schools around the country; apparently some medical schools are giving 9 and 10 year tenure clocks, as opposed to the 6 year tenure clocks. Vice Chancellor is willing to change the policy to those schools that provide data that that is in fact the nature of their competitors. The medical school said many schools they polled are giving 10 year tenure clocks.

There will be another round of Signature Centers coming up; the first Signature Centers can apply for new help.

There was a presentation from the Undergraduate Student Government.

Cliff Goodwin advised for the coming new year the school will launch IUPUI campus campaign and as you might expect “Impact” will be the title.

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

### **IUPUI Graduate Affairs Committee**

Andrew Hsu was not able to attend the Faculty Senate meeting; Ken Rennels presented a copy of the report from Andrew Hsu (see Attachment 3).

### **Purdue Intercampus Faculty** – No Report

### **Purdue Technology Senate** – No Report

### **Purdue Faculty Senate** – No Report

### **Purdue Graduate Council**

Andrew Hsu was unable to attend the Faculty Senate meeting; Ken Rennels presented a copy of the report from Andrew Hsu (see Attachment 3).

### **IUPUI Council of Associate Deans for Research** - No Report

### **Assessment Committee** – No Report

**New Business** – No Report

**Update on Dean Search and Screen**

Stephen Hundley advised the committee meets this Thursday and next Thursday. The timeline will be over the weekend of January 15<sup>th</sup> offsite, neutral areas. We will invite candidates to the school early February. The school will not guarantee their confidentiality at this time in the process. There will be a lot of opportunity for interaction with the candidates at that time. The target is in early March to provide the Chancellor with three unranked names, and the person will begin on or about July 1<sup>st</sup>.

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.

Meeting ended at 12:30 p.m. The next Faculty Senate meeting will be Tuesday, February 9, 2010, 11:00 a.m. in SL 165.

*Last updated 2/1/2010, 9:30 a.m.*

### **Dean's Report for December 8, 2009 Faculty Senate Meeting**

#### **Academic Programs**

- The student enrollment looks good for spring 2010. Both the student credit hour and the headcount increase are around 6% as compared to last year this time.
- Energy Engineering-BS program proposal is still at Purdue University Board of Trustees. It will go to Indiana Commission for Higher Education after the Board approval.

#### **Grants and Contracts**

- Steve Rovnyak (ECE): IPower, Supplement Research Award, "Hybrid Intelligent Power Mgmt Phase 1", 09/01/2008-10/25/2010, ICR: \$9,117, Total: \$26,000.
- Afshin Izadian (ENT): IND-OED, New Research Award, "Green Cell Phone Towers", 9/01/2009-2/28/2010, ICR: \$1,644, Total: \$9,989.
- Patrick Gee (NSAAC): US Navy, New Support, "Minority Engineering Advancement Program", ICR: \$2,909, Total: \$12,000.

#### **Faculty News**

- Jian Xie (ME) and Meixian Wang (ME) submitted innovation disclosure "New Method for Producing Nanographite" to the IU Office of Technology Commercialization.

#### **Science and Engineering Research Complex**

- Science and Engineering Research Complex (SERC) is the new proposed name for what used to be IUPUI Laboratory Building. The first phase (\$20M) will be 60% 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 \$2.2M per year for 20 years. We anticipate that \$1M per year will come from the campus and the remained debt will be paid from the Indirect Cost Recovery funds of the two schools in proportion to the space each occupies.

#### **Events**

- International Motorsports Show and Exhibition took place during December 2-3, 2009 at the Indianapolis Convention Center. Our school shared a booth with Purdue University and the first-time event attracted unexpectedly large crowds.
- The Spring 2010 Faculty and Staff Convocation will be on Thursday, January 7, 2010. We will start at 9:30 am with refreshments and in the afternoon, we will have faculty research presentations, one from each department.

#### **Budget**

- State was \$254M short of projected tax revenues in September 2009 and the October 2009 shortage is \$46M. When the November 2009 revenue also fell short of projections by \$144M, the Governor asked \$150M cut from the Higher Education budget. Indiana Commission for Higher Education will provide guidelines within a month on how those cuts are to be implemented.

Attachment 2: Report from Associate Dean Hundley

Report from Associate Dean for Academic Affairs and Undergraduate Programs

E&T Faculty Senate: Tuesday, December 8, 2009

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Updates

- Enrollment update for spring 2010
- RISE Working Group and GREAT Environments
  - Fall meetings; spring plans include development of pre/post reflection tools for use in RISE classes and focus groups to augment GREAT data and fall discussions
- OnCourse E&T Student Engagement Survey
  - Launched 11/16; concluded 12/4
  - 416 completed surveys so far (17.2% response rate)
  - Analysis underway; report in January
- ABET
  - Preparation meetings
  - Alumni and employer surveys
  - Information received from outside departments

Early Warning

- Plan for spring
  - Advising Center will coordinate for freshmen E&T students
    - Mirrors what UCOL and other units are doing
  - ME will pilot-test interventions at department-level
    - Continuation of proactive retention communication plan
  - Focus will be on students receiving more than one concerning feedback indicator
    - Emails, telephone calls, and resource referrals will be made
  - We will analyze what approaches work best and enhance practices for fall 2010; data will also be archived to identify trends/patterns by student, program, and department

National Survey of Student Engagement Results

- IUPUI Areas of Strength:
  - Worked harder than you thought you could to meet an instructor's standards or expectations
  - Campus environment emphasizes spending sufficient time studying and on academic work
  - Made a class presentation
  - Worked with other students on projects during class
  - Participated in a community-based project (e.g. service learning) as part of a regular course
  - Talked about career plans with a faculty member or advisor
  - Participate in a learning community or some other formal program where groups of students take two or more classes together
  - Culminating senior experience

- Quality of relationships with administrative personnel and offices
- IUPUI Opportunities for Improvement:
  - Coursework emphasizes: *Analysis* of the basic elements of an idea, experience, or theory; *Synthesis* and organizing of ideas into more complex interpretations and relationships; and *Making judgments* about the value of information, arguments, or methods
  - Worked with classmates outside of class to prepare class assignments
  - Participating in co-curricular activities
  - Serious conversations with students of different religious beliefs, political opinions, or personal values
  - Serious conversations with students of a different race or ethnicity than your own
  - Campus environment helps you cope with your non-academic responsibilities
  - Campus environment provides the support you need to thrive socially
  - Quality of relationships with other students
- Noteworthy finding:
  - Course challenge (e.g. high/stretch-goal expectations) has positive impact on both retention and GPA
- E&T-specific results:
  - Department Chairs provided handout at CDD meeting on 12/1

#### IUPUI Students By-the-Numbers

- See separate handout
- Departments/faculty are encouraged to review this information to get an up-to-date portrait of IUPUI student body

#### Upcoming Events

- PUL Symposium: Monday, February 1, 2010, 9:00am-3:30pm, Location: CE 409
- E.C. Moore Symposium on Teaching Excellence: Thursday, March 4, 2010, 8:00am-5:00pm, Campus Center
  - Call for proposals open through 12/11; visit [ctl.iupui.edu](http://ctl.iupui.edu) for more information



**Report to Faculty Senate by Associate Dean for Research and Graduate Programs**

December 8, 2009

**Research Data:**

Fiscal Year 2010 to date:

Proposals submitted: 70 for \$12,472,165  
Awards Received: 29 for \$5,389,276

Last Year same time frame:

July – November 2008

Proposals submitted: 51 for \$13,445,321  
Awards Received: 28 for \$2,191,279

**Graduate Program**

1. School submitted the 2010-2011 block-grant and teaching assistantship proposals to IUPUI Graduate Office. A total of \$207K was requested from block grant and \$72K requested from teaching assistantship grant.
2. Program development:
  - a. Multi-disciplinary PhD concept paper sent to campus (SPEA, Kelley, Liberal Arts, Science);
  - b. MS in Energy Systems proposal sent to NSF, (in collaboration with SPEA, Kelley, and Science);
  - c. NSF proposal Responsible Conduct in Research (RCR) in science and engineering graduate education being organized as a multi-school effort;
  - d. System Engineering certificate and MS program being organized by ME, ECE and ENT
3. IU to implement RCR training for graduate students and post-doctoral fellows to meet new NSF requirement.
4. Agreement to waive indirect cost for student support is being negotiated between IUPUI and PUWL.
5. Joint MS in Logistics with Yeditepe University being renegotiated and fine tuned.
6. Enrolment data of Fall 2009:

**Fall 2009 Graduate Enrollment/Headcount**

MSBME: 15  
MSECE: 65  
MSME: 56

MSMT:	52
MSTECH:	52
PhD BME:	13
PhD ECE:	5
PhDME:	4
Total:	<u>262</u>

Total application processed for Fall 2009 admission: 244  
Total application processed for Fall 2008 admission: 166  
Total new student enrollments Fall 2009: 82  
Total University Fellowship awards: 4 (1 MSBME, 3 MSECE)

**Purdue Graduate Council Meeting (November 19, 2009)**

Approved the following new programs:

1. New MS concentration in Logistics Systems Management and Engineering for Mechanical Engineering at IUPUI
2. Combined BS/MS in Computer Technology at WL

## Attachment 4: CNC/TST Taskforce Report

Report from CNC/TST Taskforce to ET Faculty Senate –  
Tuesday, December 08, 2009

Committee members:

- Scott Deal (MAT)
- Hazim El-Mounayri (ME)
- Connie Justice (CIT)
- Todd Herring (UITS)
- Caren Krahulik (HR)
- Marilyn Kuhn (HR)
- Duane Schau (UITS)
- Russ Woodard (CFS)
- Elaine Cooney (ENT) – Chair

### **Engineering & Technology Computer Network Center Responsibilities:**

CNC will support the strategic and the high quality educational and research mission of the school by supplying the specialized hardware and software needs and interacting with UITS for engineering and technology faculty, staff and students. Specifically, this entails:

1. Desktop support for faculty and staff.
2. Research computing support in collaboration with department specialists/technicians.
3. Research lab support in collaboration with department specialists/technicians (note this can be different from research computing needs).
4. Teaching computing lab support for E&T that are specialized in nature and present a need for the school.
5. Teaching computing lab support for E&T that are specialized in nature and present a need for departments in collaboration with specialists/technicians.
6. Coordination and leveraging of computing support offered by UITS.
7. Overseeing special departmental or school-related events that require technical support.
8. Coordinating technology-related facility usage and resources with other academic units; interface at regular intervals with CNC peers in related units.

### **Technical Services Team**

The work request system for non-computer technical support (e.g. department technicians) should be replaced with the Footprint system. Any non- “regularly scheduled” work should be vetted through the system.

## Attachment 5: Approved Course Coordinator Description

The School of Engineering and Technology

Course Coordinator Description

Draft -- November 2009

Most departments in E&T need someone to coordinate courses, especially multi-section ones or co-taught ones. The description below outlines the responsibilities of Course Coordinators and how their work is valued in reappointment, tenure, and promotion decisions.

- Each multi-section or co-taught course, especially those staffed by part-time instructors, should have a Course Coordinator assigned to it.
- The Course Coordinator should be a full-time faculty member in a tenure-line, clinical, or lecturer appointment.
- Typical responsibilities of the Course Coordinator may include but are not limited to:
  - reviewing course content and teaching approaches periodically for currency and quality
  - orienting new instructors to the course
  - overseeing assessment, as needed
  - helping in the professional development of instructors of the course
  - providing the first point of contact for addressing disagreements between students and instructors of the course
  - participating in the selection of textbooks and other course materials
  - acting as liaison with the director of a program or chair of a department in issues relevant to the course
  - coordinating the evaluation of instructors
- Course Coordinators should list their activities in the Faculty Annual Summary Report. This work should also be evaluated in reappointment, tenure, and promotion decisions.
- Departments may not be able to provide course release time for Course Coordinators. However, the time commitments of this role should be considered when assigning service responsibilities to Course Coordinators.

**IUPUI APPLICATION FORM FOR MINORS**

I. School: **ENGINEERING & TECHNOLOGY** Department: **COMPUTER, INFORMATION, & LEADERSHIP**  
**TECH**

Program: Organizational Leadership and Supervision

II. Proposed Minor: **Honors Minor in Organizational Leadership**

III. Related Major: **Bachelor of Science in Organizational Leadership and Supervision (OLSBSBS)**

IV. Projected Date of Implementation: **Fall 2010 (4108)**

V. List the major objectives of the proposed minor and describe its chief features briefly.

The OLS Honors Minor in Leadership consists of five courses (15 credit hours), providing high potential IUPUI undergraduates admitted to the new Honor's College or other degree programs outside of OLS from securing strong foundation in current theories designed to prepare students for future leadership roles and/or advanced degrees such as the Masters of Technology with a concentration in Organizational Leadership. Students admitted to the Honor's minor must follow a sequence of specific courses to explore advanced topics in Organizational Behavior, Global Leadership, and Leadership Theories and Processes. Once these courses are completed, the students must complete two 400 or 500-level Leadership Challenge courses with significant research, study abroad, and internship components to meet campus RISE objectives and provide the students with opportunities to expand the breadth and depth of their leadership understanding through practical application of their knowledge.

VI. Why is the minor needed? (Rationale)

The Honors Minor in Leadership provides a pathway for students seeking H-option courses. It will fulfill scholarship requirements to integrate honors coursework and build the leadership skills needed for careers in science, technology, engineering, and all organizations. Through PUL-focused Honors courses taught only by full-time Engineering and Technology faculty with limited enrollments, highly-motivated IUPUI undergraduate students will be afforded the opportunity to supplement their primary degree program within a curriculum consisting of their academic peers while preparing themselves for post-baccalaureate studies.

VII. Describe the student population to be served and market to be targeted.

High-ability students seeking a foundation in leadership skills with a global focus and local urban applications for participating in translational research, study abroad, or internship

opportunities (admission to the minor requires a 3.0 GPA and all students must earn a 3.0 or higher in each course to receive the minor).

VIII. How does this minor complement the departmental and campus missions? Address how it conforms to IUPUI's **Principles of Undergraduate Learning**.

Each OLS course listed in the minor, teaches with a major emphasis, one of the PULs. Thus, this minor advances the learning goals and mission of the OLS department and the IUPUI campus. The PUL covered with a major emphasis in each course is identified below.

**Courses 1-3 below are required of all students.**

1. OLS- H 25200 Human Behavior in Organizations  
PUL learned in this course: PUL #3 (Major emphasis) Integration and application of knowledge.
2. OLS- H 32700 Leadership for a Global Workforce  
PUL learned in this course: PUL #5 (Major emphasis) Understanding Society and Culture
3. OLS-H 39000 Theories and Processes  
PUL learned in this course: PUL #1 (Major emphasis) Written oral and visual skills.

**Students must select any two of the following challenge courses.**

4. OLS-H 40600 Ethics in Engineering and Technology  
PUL learned in this course: PUL #3 (Major emphasis) Integration & Application of Knowledge
5. OLS -H 47700 Conflict Management:  
PUL learned in this course: PUL #3 (Major emphasis) Integration & Application of Knowledge
6. OLS -H 48600 Management of Change:  
PUL learned in this course: PUL #3 (Major emphasis) Integration & Application of Knowledge
7. OLS 49900 Individual Research Problems:  
PUL learned in this course: PUL #3 (Major emphasis) Integration & Application of Knowledge
8. OLS-H 49100 Internship:  
PUL learned in this course: PUL #3 (Major emphasis) Integration & Application of Knowledge

IX. List and indicate the sources (including reallocation) of any resources (personnel, financial, learning, library holdings, equipment, etc.) required to implement the proposed program.

Courses offered as part of the Honors Minor in Organizational Leadership will be taught by full-time faculty supporting the curriculum in Organizational Leadership and Supervision or faculty partners with advanced degrees beyond the MS/MA level, thus ensuring the best talent is directed

towards supporting this high performance cohort. Program marketing will be limited to the partnership between OLS and the new IUPUI Honors College. Administrative support, in terms of modifications to student program plan stack and verification of meeting requirements for completion of the minor to be awarded with the student's baccalaureate degree, will be dispersed to existing school staff and faculty. No additional personnel or fiscal resources are needed to support the minor.

X. Describe any innovative features of the program (e.g., involvement with local or regional agencies, offices, etc., cooperative efforts with other institutions, etc.)

Cooperation with the IUPUI Honors College is critical to the success of the Honors Minor in Organizational Leadership. Most of the OLS-H option courses offer students the chance to pursue funded or non-funded undergraduate research. The Honors Minor presents a platform for engaging students in IUPUI's RISE initiative. Added to this, students will come from many disciplines across IUPUI and thus have the opportunity to engage in interdisciplinary RISE activities in the classroom and beyond.

XI. List the major student outcomes (or set of performance-based standards) for the proposed minor. That is, what learning will the program produce in a comprehensive sense? (See Attachment following XII for a model that incorporates illustrations of the outcomes and assessment mechanisms specified in Items XI and XII.).

Student Learning Outcome:	Where will students learn this knowledge or skill?	How will student achievement of the outcome be assessed?	In what setting will the assessment take place?
<b>Comprehend significance of how one's leadership abilities affect: personal vision, development of followers, industries, communities, disciplines, and the world.</b>	Working in small autonomous work groups, organizational observation.	Group and team projects, reports, writing assignments, comprehensive final exams	OLS- H 25200
<b>Explain how international contexts affect organizational behavior and leadership. Evaluate effectiveness of leadership theory and apply the most effective ones within and across diverse, complex organizations.</b>	Interactions with cultural informants, readings, group work, and research identifying effective strategies for leadership and supervision within international contexts, applying various models to describe differing cultures, international experiences	Individual and group/team projects, experiential exercises, international service, written assignments, comprehensive final exams	OLS- H 32700

<p><b>Evaluate, defend and challenge research based contemporary leadership theories using evidence based analytical methodologies.</b></p>	<p>Read, analyze and discuss case studies; interview/job shadow, research and writing designed to apply contemporary leadership theories to situational, real life, and workplace issues.</p>	<p>Case studies, leadership job shadow, Comprehensive essays, reflection papers</p>	<p>OLS-H 39000</p>
<p><b>Logically defend the need to develop interpersonal/human skills necessary for leadership. Value and apply concepts such as, the leader as relationship builder, as social architect, and as a visionary.</b></p>			
<p><b>Value their knowledge of leadership and thus behave congruently with that knowledge while leading others.</b></p>			
<p><b>Integrate leadership theory to practice in discipline-specific organizational settings leading to sustainable organizational practices.</b></p>	<p>Multidisciplinary Research Projects; Sponsored Research(e.g., UROP, MURI,) sponsored internships through the Solution Center, and community service</p>	<p>Project Reports, Publications, conference attendance and presentations</p>	<p>OLS-H 40600; OLS-H 47700; OLS-H 48600; OLS-H 49900; OLS-H 49100; OLS 500-LEVEL</p>
<p><b>Apply appropriate methodologies for solving problems, making decisions, resolving conflict, fostering change, innovation, growth and for investing capital.</b></p>			

XII. Explain how each of the student learning outcomes identified in XI above will be assessed using, for example, course-embedded assessments, graduate follow-up, employer surveys, standardized tests, etc? Will assessment take place in courses? in practice settings? in a culminating project or seminar? (Please use the matrix in the Attachment to indicate how the outcomes will be assessed and in what setting(s).) On what basis will you demonstrate that this program has been successful? What performance indicators will you use?

Success of the Honors Minor in Organizational Leadership program will be based on the following:



<b>Criterion for HMOL Program-level Success</b>	<b>Performance Indicators</b>
<b>Increases preparedness of recent graduates for leadership positions</b>	Employer surveys; alumni surveys
<b>Increase in number of undergraduate publications and presentations at local, national, and international conferences and events</b>	Internal statistics and record keeping disseminated through reports. Assessment and evaluation (e.g. student surveys, graduation rates, completion rates and time taken to complete the minor),
<b>Fosters relationship with Honors College and strengthens collaboration with local organizations</b>	Track and document student engagement in research, international travel, service to others and experiential learning afforded by the leadership minor.
<b>Increase in number of undergraduate students transitioning to MS programs immediately after completion of BS</b>	Institutional enrollment statistics (enrollment stats)
<b>Provides interconnection of H-option alternatives for undergraduates admitted to Honors College</b>	Institutional enrollment statistics (completion stats)
<b>Participation in Honors Minor</b>	Institutional enrollment statistics (enrollment stats)

**School of Engineering and Technology**  
**Organizational Leadership & Supervision**  
Honors Minor in Leadership  
(15.0 credit hours)

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**PLAN OF STUDY: OLS Honors Minor in Leadership**

The OLS Honors Minor in Leadership consists of five courses (15 credit hours). The courses in this minor provide a solid foundation in leadership competencies that fit well with other majors, providing a strong foundation in current theories designed to prepare students for future leadership roles and/or the Masters of Technology with a concentration in Organizational Leadership. Honors sections of each course are available to students admitted to IUPUI's Honor's College, on academic honors scholarships, or with a cumulative GPA of 3.0 or higher.

**OLS Minor - five course sequence**

- **OLS-H 25200** Human Behavior in Organizations (3.0 credit hours)  
(Pre-requisite: ENG-W 131)
- **OLS-H 32700** Leadership: Global Workforce (3.0 credit hours)  
(Pre-requisite: OLS-H 25200)
- **OLS-H 39000** Theories and Processes (3.0 credit hours)  
(Pre-requisites: Junior Standing, OLS-H 32700)
  
- **400-Level Leadership Challenge Course** Select from **two** of the following options:
  - OLS-H 40600 Ethics in Engineering and Technology (3.0 credit hours)
  - or OLS-H 47700 Conflict Management (3.0 credit hours)
  - or OLS-H 48600 Management of Change(3.0 credit hours)
  - or OLS-H 49900 Individual Research Problems (3.0 credit hours) – *Consent Required.*
  - or OLS-H 49100 Internship Program (3.0 credit hours) – *Consent Required.*
  - or any approved 300/400-level H-option course offered within the student's major curriculum.  
(Pre-requisites: Junior/Senior Standing; OLS-H 39000)

**NOTE:** Each of the 400-level courses above fulfills the RISE Requirement for OLS BS Majors.

To be admitted to the Honors Minor in Leadership, students must either be admitted to IUPUI's Honors College or have sophomore status with a cumulative GPA of 3.0 or higher. Once admitted, students must earn a "B" or higher in all required courses and have a GPA of 3.0 or higher to be awarded the Honors Minor in Leadership. All students must submit an application for completion of the minor when requesting authorization to enroll in OLS-H 39000. Contact OLS for additional information: (317) 278-0277.

## Curriculum

Students are required to successfully complete the following courses to earn the Minor in Leadership from OLS:

Course	Title	Credit Hours
OLS-H 25200	Human Behavior in Organizations	3.0
OLS-H 32700*	Leadership: Global Workforce	3.0
OLS-H 39000*	Theories and Processes	3.0
400-Level H-option	Leadership Challenge Course	3.0
400-Level H-option	Leadership Challenge Course	3.0
<b>Total</b>		<b>15.0</b>

### Course Descriptions

#### **OLS-H 252 Human Behavior in Organizations (3 cr.)**

Studies the bases of human relations and organization of individual and group behavior. Special emphasis is placed on typical supervisory relationships.

#### **OLS-H 327 Leadership for a Global Workforce (3 cr.)**

Variety of organizational leadership issues including expatriate assignments, international business strategies and their culture and managerial implications, and a review of business and management practices around the world.

#### **OLS-H 390 Leadership Theories and Processes (3 cr.)**

Knowledge and applied leadership skills essential for establishing and continuously improving organizational effectiveness by forestalling and solving workplace problems.

#### **OLS-H 400-level OLS Challenge Courses (3 cr.)**

Students enrolled in the Minor in Leadership must select 6.0 credit hours of OLS-H, TECH Graduate, or OLS Graduate-level courses to fulfill the Challenge Requirement. Courses should be chosen in consultation with a faculty advisor, based on a student's area of interest. Up to 6.0 credit hours of 400-level/500-level courses taken toward the Minor in Leadership may be applied towards the Masters in Technology through the School of Engineering and Technology at IUPUI. Students may also use 300/400-level H-option courses required for their primary degree plan of study to fulfill the 6.0 credit of Challenge Coursework.

*Courses for the 400-level Challenge include, but are not limited to the honor's sections below:*

**OLS-H 40600** Ethics in Engineering and Technology (3.0 cr.)

**OLS-H 47700** Conflict Management (3.0 cr.)

**OLS-H 48600** Management of Change (3.0 cr.)

**OLS-H 49900** Individual Research Problems (3.0 cr.) – *Consent Required.*

**OLS-H 49100** Internship Program (3.0 cr.)– *Consent Required.*

**Purdue School of Engineering and Technology, IUPUI**  
799 West Michigan Street, Room ET 309  
Indianapolis, Indiana 46202-5160  
Phone: (317) 278-0277/Fax: (317) 278-3669  
<http://www.engr.iupui.edu/index.shtml>

Attachment 8: BSME and BSMSTE Degrees

**The Distribution of Credit Hours by Semester for BSME and BSMSTE Degrees**

**First Year**

***First Semester (17 cr.)***

CHEM C105 Chemical Science I (3 cr.)  
COMM R110 Fundamentals of Speech Communication (3 cr.)  
ENGR 195: Introduction to the Engineering Profession (1 cr.)  
ENGR 196: Introduction to Engineering (3 cr.)  
MATH 165 Integrated Calculus and Analytic Geometry I (4 cr.)  
[P: Placement]  
MSTE 27200: Intro to Motorsports (3 cr.)  
[P: none]

***Second Semester (16 cr.)***

ENG W13100 Elementary Composition I (3 cr.)  
ENGR 19700 Introduction to Programming Concepts (2 cr.)  
[C: MATH 16500]  
MATH 16600 Integrated Calculus and Analytic Geometry II (4 cr.)  
[P: MATH 16500]  
PHYS 15200 Mechanics (4 cr.)  
[C: MATH 16600]  
MATH 17100 Multidimensional Mathematics (3 cr.)  
[C: MATH 16500]

**Second Year**

***Third Semester (17 cr.)***

MATH 26100 Multivariate Calculus (4 cr.)  
[P: MATH 16600, MATH 17100]  
ME 20000 Thermodynamics I (3 cr.)  
[P: PHYS 15200; C: MATH 26100]  
ME 27000 Basic Mechanics I (3 cr.)  
[P: PHYS 15200; C: MATH 26100]  
PHYS 25100 Heat, Electricity, and Optics (5 cr.)  
[P: PHYS 15200]  
ENGR 29700 Matlab (1 cr.)  
[P: ENGR 19700]  
MSTE 29700 (1 cr.) Computer Modeling for Motorsports  
[P: none]

***Fourth Semester (16 cr.)***

ECON E201 Introduction to Microeconomics (3 cr.)  
ECE 204 Introduction to Electrical and Electronic Circuits (4)

[P: PHYS 251]  
MATH 26600 Linear Algebra and Differential Equations (3 cr.)  
[P: MATH 166]  
ME 26200 Mechanical Design I (3 cr.)  
[P: ME 27000; C: ENGR 29700]  
ME 27400 Basic Mechanics II (3 cr.)  
[P: ME 27000; C: MATH 26600]

### **Third Year**

#### ***Fifth Semester (17 cr.)***

ME 27200 Mechanics of Materials (4 cr.)  
[P: ME 270]  
ME 31000 Fluid Mechanics (4 cr.)  
[P: ME 20000, MATH 26600, C: ME 27400]  
ME 33000 Modeling and Analysis of Dynamic Systems (3 cr.)  
[P: MATH 266, ECE 204]  
General Education Elective (3 cr.)  
MSTE 35000 Computer Aided Design & Mnfg (3 cr.)  
[P: MSTE 29700]

#### ***Sixth Semester (17cr.)***

General Education Elective (3 cr.)  
ME 31400 Heat and Mass Transfer (4 cr.) (MSTE Tech. Elect.)  
[P: ME 310]  
ME 34000 Dynamic Systems and Measurements (3 cr.)  
[C: ME 330]  
ME 37200 Mechanical Design II (4 cr.)  
[P: ME 26200, ME 27200, ME 27400]  
Statistics Elective (3 cr.)  
[P: Junior Standing]

### **Fourth Year**

#### ***Seventh Semester (15 cr.)***

ME 34400 Introduction to Engineering Materials (3 cr.)  
[P: Junior Standing]  
MSTE 31000 Business of Motorsports I (3 cr.)  
[P: MSTE 27200]  
MSTE 33000 Data Acquisition in Motorsports I (3 cr.)  
[P: ECE 20400]  
General Education Elective (3 cr.)  
ME 41400 Thermal-Fluid Systems Design (3 cr.) (MSTE Tech. Elect.)  
[P: ME 26200; C: ME 31400, STAT Elective]

#### ***Eighth Semester (16 cr.)***

MSTE 32000 Motorsports Design I (3 cr.)  
[P: ME270, ME274, MSTE 29700, MSTE 31000]  
MSTE 33100 Data Acquisition in Motorsports II (3 cr.)  
[P: MSTE 33000, MSTE34000]  
MSTE 31100 Business of Motorsports II (3 cr.)  
[P: MSTE 31000]

ME 48200 Control Systems Analysis and Design (3 cr.)  
[P: ME 34000]  
General Education Elective (3 cr.)  
MSTE I41000 Internship (1 cr.) (ME I184 for ME Sci/Tech Elective)

**Fifth Year**

*Ninth Semester (12)*

MSTE 472000 Vehicle Dynamics (3 cr.) (ME Tech. Elect.)  
[P: ME270, ME274]  
MSTE 42600 Internal Combustion Engines (3 cr.) (ME Tech. Elect.)  
[P: ME20000]  
[P: Senior Standing]  
MSTE I41000 Internship (1 cr.) (ME I284 for ME Sci/Tech Elective)  
Free Elective (3 cr.)  
TCM 36000 Communication in Engineering Practice (2 cr.)  
[P: ENG W131, COMM R110]

*Tenth Semester (12)*

ME 50400 Automotive Control (3 cr.)  
[P: ME 48200]  
ME 462 Engineering Design (3 cr.)  
[P: ME 34400, ME 37200; C: ME 41400, ME 48200, ME40500]  
TECH Elective (3 cr.) (ME & MSTE Tech. Elective)  
[P: Senior Standing]  
ME40500 FE Exam Prep. & Seminar (1 cr.)  
MSTE I41000 Internship (1 cr.) (ME I384 for ME Sci/Tech Elective)  
ME 40100 Engineering Ethics and Professionalism (1 cr.)

Total Credits = 155

**MEMORANDUM**

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**TO:** Mary Jane Brown, Director  
Daniel Callison, Dean

**FROM:** Stephen P. Hundley, Associate Dean

**RE:** Reaffirmation of endorsement for articulated technical credits from Ivy Tech

**DATE:** November 12, 2009

This document will serve as a reaffirmation of the Purdue School of Engineering and Technology's endorsement for technical credits from Ivy Tech's associate of science and associate of applied science degrees to be used in appropriate degree programs at IUPUI. The distribution of technical credits from Ivy Tech to satisfy degree program requirements shall be subject to the articulation agreement(s) and/or faculty recommendations in each degree program. Furthermore, technical credit distribution decisions are granted to the General Studies degree program administrators, advisors, and faculty at IUPUI and throughout the Indiana University system.

This document reaffirms a longstanding practice related to technical credit distribution, as reflected in two memoranda (November 19, 1997 and September 29, 2003).

Please contact me at 317-274-2876 or [shundley@iupui.edu](mailto:shundley@iupui.edu) when I may provide further details or answer additional questions.

Copy to: H. Öner Yurtseven, Dean  
Karen Alfrey, Chair, Undergraduate Education Committee