1. Attendance:
   Aero – Not present (Jen-Ping Chen)
   AVN – Seth Young
   BME – Rita Alevriadou
   CHE – Not present (Dave Tomasko)
   CEGS – (Civil, Environmental, Geomatics) – Halil Sezen (for Patrick Fox)
   CSE – Bruce Weide
   ECE – George Valco - Chair
   ENG PHY – Harris Kagan
   FAB – Ann Christy
   IWSE –
     ISE – Clark Mount-Campbell
     WLD – Dave Farson
   MSE – for Kathy Flores
   ME – Gary Kinzel (for Marcelo Dapino)
   Graduate Student – Hannah Gustafson (not present C.J. Mullin)
   Undergraduate Student – Japheth Pritchett (not present Tim Schroeder)
   Secretary – Ed McCaul
   Guests – Bob Gustafson

2. The minutes from the 16 February 2009 meeting were approved as written.

3. Rita Alevriadou presented the Course Proposal Subcommittee’s recommendations.
   3.1. The subcommittee recommended that ENG 658, 659, 659.01, 659.02; ECE 717; BME 611, 651, 734, 764, 783; CE 670, 672, 673, 775, 776 be approved. Rita informed the committee that the ENG capstone courses will have industry sponsors and are currently being taught under a Mechanical Engineering number. Except for 783 all of the BME courses have been offered as group studies. The Civil Engineering courses requests are an effort on the part of Civil to update their courses. Rita Alevriadou made a motion that all of the course requests be approved. Dave Farson seconded the motion. The floor was opened for discussion.
   3.2. A question was asked as to why the ENG courses can be taken by graduate students when they are undergraduate capstone courses. The response was that at times this is appropriate when a graduate student has a non engineering undergraduate degree.
   3.3. The question was asked as to who will be tracking the ENG capstone courses. The response was that these courses will be under the supervision of Bob Rhoads and Peter Rogers from EEIC. Tony Luscher from Mechanical is the faculty member coaching the students currently taking the course.
   3.4. The comment was made that MSE would like to have an opportunity to concur on BME 734. This was added to the motion as a friendly amendment.
3.5. The comment was made that CSE 202 rather than CSE 201 should be one of the prerequisites for CE 776 as CSE 202 is the equivalent of EG 167 while CSE 201 is not. This was added to the motion as a friendly amendment.

3.6. There being no further discussion a vote was taken: 12 approved, 0 opposed, and 0 abstentions. The motion with its amendments passed.

4. Bob Gustafson informed the committee about the role of the Engineering Education Innovation Center (EEIC). The center was established in May of 2007 with the role of inspiring innovation in engineering education, particularly undergraduate education. Its core programs are First Year Engineering, multidisciplinary capstone, Technical Communications Resource and Consultation Center, Technological Literacy Minors, and faculty and student professional development. The minors are a recent addition and it will be some time before they will know if there is a market for these minors. The minors were well received during their approval process as people saw them as an engineering outreach to the broader university community. Last summer Engineering Graphics was added to EEIC and they are working on revising and updating the graphics curriculum. Bob views EEIC as offering cross disciplinary opportunities to our students and faculty. The floor was opened for discussion.

4.1. The question was asked as to whether any cross disciplinary graduate curriculum and degrees would come under EEIC such as the proposed Masters of Engineering Leadership. The response was this is not currently part of EEIC’s charge and that graduate curriculum is the responsibility of the Associate Dean for Graduate and Professional Education, Hazel Morrow-Jones.

4.2. The question was asked as to whether all ENG courses were under EEIC. The response was no but that all ENG courses come under the Core Committee.

4.3. The question was asked as to where the professors who teach courses under EEIC come from. The response was that the courses are taught by professors from various departments as well as hired instructors. EEIC is currently investigating ways for faculty to officially associate with the center.

4.4. The question was asked as to whether EEIC is receiving any external funding for research. The response was that right now external funding for research is pretty thin but they are working on getting more.

4.5. The comment was made that the available projects in the current multidisciplinary capstone course offering seem to be very light on electrical engineering content. ABET wants a multidisciplinary capstone experience for engineering students but at the same time the students need to have a capstone experience that covers their major. The response was that they are currently recruiting companies to sponsor multidisciplinary capstone courses for next year but that it is hard to predict what the disciplinary mix will be. A company is asked to provide $10,000 in funding for a project as well as the time of some of their employees.

4.6. The question was asked as to how EEIC communicates with the various departments on the multidisciplinary capstone courses. The response was that they communicate through the individual who is in charge of the program’s capstone experience.
5. George Valco informed the committee that Dave Tomasko, Ann Christy, Prabhat Gupta, and he met with the dean to discuss how the college core will be managed for the possible change from quarters to semesters. The decision was to create an ad hoc taskforce/committee to manage the process. The dean left it to the group to suggest to him a list of candidates for membership and to create a draft charge for the taskforce/committee. The dean also expressed an interest in making the core more global with the possibility of including a foreign language or foreign culture course.

6. The chair commented that not everyone has completed and turned in their Service Course Topic Reports and requested that those who have not please do so as soon as possible. The question was asked as to how these reports will be used. The response was that they would be made available to the taskforce and then to the appropriate offering department.

7. The committee was given a copy of the draft Report of the Ad-Hoc Semester Conversion Committee (attached). The Conversion Committee presented this report to the Faculty Council on the 26th of February. After hearing the report the Faculty Council approved a resolution recommending approval of the change to semesters by the University Senate with wording that semesters not have fewer than 65 class days. If this suggestion is accepted it will mean that we will go from 30 to 26 weeks of instruction. One suggestion to balance the instructional time would be to increase the typical course period from 48 minutes to 60 minutes with 15 minutes between classes. However, this was not part of the resolution. The chair would like for everyone to go back to their departments and get a discussion going about this. Currently ECE is not in favor of a 13 week semester. We need to let the groups who will be creating the policies implementing the know change how we feel about the length of a semester. The floor was opened for discussion.

7.1. The comment was made that a 15 week semester is more the norm throughout the country. Another comment was made that there is a range of different lengths of semesters and that 15 is on the upper end of that range.

7.2. The comment was made that based on the calendar included in the report that we will be going to four terms, not including summer, rather than the three we currently have. Will this mean an increased work load for the faculty?

7.3. The comment was made that the short three week terms are not intended to be used to cram in a course. Rather they are designed for service learning, learning abroad, and research.

7.4. The comment was made that the number of weeks in a term is only one measure as classroom time and seat availability also need to be considered.

7.5. The comment was made that if our three hour courses go to two hours our students will need to take more courses in any one term and that classroom space may become an issue.

7.6. The comment was made that none of this is cut in stone yet and that 65 class days is the lower limit with an upper limit not yet being designated.
7.7. The question was asked as to what students think of the three week mini semesters. Could the mini semesters be an expensive proposal that not many students take advantage of? The comment was made that how students will pay for courses offered during the mini semesters has not yet been determined and those courses could very well be part of the previous semester’s tuition.

7.8. The comment was made that there are a lot of details that still need to be worked out.

7.9. The comment was made that there was an overrepresentation of humanities on the committee that developed the proposal.

8. The committee was given a copy of the draft Performance Plan Acceleration Task Force (PPAT) Report (attached) and the draft Rollout Process (attached). Because of all of the proposals that the committee may receive based on the report and rollout process extra meetings have been scheduled for spring quarter. In addition, each meeting will be 1 ½ hours long. The time line shown on the Rollout is an aggressive one and we will likely have quite a bit of work to do.

9. The committee was given a copy of the proposed university wide syllabus. There are some problems with the proposed syllabus as it requires information that is not used to determine the academic feasibility of a course. In addition, it would require extra work for engineering as we would still need to create an ABET version of every syllabi. It was decided that the chair would make a list of concerns engineering has with the proposed syllabus, distribute it to CCAA members by email for comment, and then send it to Dan Mendelsohn and Randy Smith.

10. A motion was made to adjourn the meeting. The motion was seconded and approved by acclamation. The meeting was adjourned at 11:35.
REPORT OF THE 2008-09 AD HOC SEMESTER CONVERSION COMMITTEE

THE OHIO STATE UNIVERSITY

MARCH, 2009

Ad-Hoc Committee Membership

Timothy Gerber, Professor of Music; Vice Chair, Faculty Council, Committee Chair

Kathy Corl, Associate Professor of Germanic Languages and Literature; Council on Academic Affairs

Brad Myers, University Registrar and Acting Director of Student Financial Aid

Martha Garland, Vice Provost and Dean; Office of Academic Affairs

Don Haurin, Professor and Chair, Economics Department; Council on Enrollment and Student Progress

Christopher Highley, Associate Professor of English; Chair, Arts and Sciences Committee on Curriculum and Instruction

Adam Kolatorowicz, Graduate Student in Anthropology; Council of Graduate Students

Brian McEnnis, Professor of Mathematics; Regional Campuses

Meghan Meredith, Pharmacy Student; Inter Professional Council

Ron Piscalko, Office of the Chief Information Officer

Josh Rackers, Undergraduate Student Government

John Roberts, Professor of English and Dean; Colleges of the Arts and Humanities

Valerie Shafer, Office of Student Life

W. Randy Smith, Associate Provost; Office of Academic Affairs

Harald Vaessin, Professor of Molecular Genetics; Senate Fiscal Committee

Ingrid Werner, Professor of Finance; Graduate Council
INTRODUCTION

The Ohio State University has delivered instruction within a quarter-based calendar since 1922 when it converted from semesters to quarters. The prospect of reverting to a semester calendar has been considered on several occasions in modern history, most recently in 1991 and again in 2001. The 1991 commission, chaired by Professor Christine Verzar, was formed by Gordon Gee in his first term as president in response to a resolution from the Council of Graduate Students. The later investigation, chaired by Professor Grady Chism, came at the request of then president Brit Kirwan in response to provisions of the Academic Plan. Both committees produced thorough reports on the feasibility of converting to semesters. While the Verzar report recommended no action, the Chism committee by a vote of 11 – 4 recommended a calendar conversion in 2001, but an inadequate student information system prevented its implementation. The current study stems from a recommendation in the Strategic Plan for Higher Education, 2008-2017 to adopt a common academic calendar across all universities in the recently established University System of Ohio.

While several state universities have switched from quarters to semesters since the mid-nineties (Cleveland State, Kent State, Youngstown State, Shawnee State), four of the thirteen universities in the University System of Ohio remain on the quarter system in 2008-09. Of these, Ohio University and the University of Cincinnati have decided to convert to semesters, and Wright State University will conduct its vote on February 27, 2009. In response to the “common calendar” recommendation of the higher education strategic plan, the Faculty Council at Ohio State voted unanimously on October 16, 2008 to approve a proposal to appoint an ad hoc committee to explore the desirability and feasibility of Ohio State shifting to semesters and to propose to the University Senate that the University shift or not. Faculty Council also recommended guidelines for the composition of the ad-hoc committee.

On October 21, the four faculty leaders representing Faculty Council (Secretary of the Senate Chris Zacher, Steering Chair Heather Allen, Faculty Council Chair Richard Gunther, and Vice-Chair Tim Gerber) met with President Gordon Gee and Provost Joe Alutto to discuss the process for exploring a possible conversion. Agreement was reached concerning the need for a broadly representative committee, as well as a timetable for its deliberations during the 2008-09 academic year. By November 10, a diverse representation of experienced faculty, staff, administrators, and students had agreed to serve on the committee. Composed of 7 faculty, 3 staff members, 3 administrators, and 3 students, the committee convened for the first time on November 13, 2008.

It was agreed when the committee was charged by Faculty Council chair Richard Gunther that it would build on the relevant data and source material disseminated in the previous “Verzar” and “Chism” semester conversion reports. The task of the committee was to explore the feasibility of converting to semesters rather than to ascertain details of a potential implementation process. Accordingly, the committee was asked to present a resolution to the University Senate by the end of the Winter Quarter, 2009, concerning whether the University should move forward with this conversion, as well as
recommendations concerning key issues related to that conversion, such as the length of semesters and other aspects of the University calendar. The University Senate will vote on this proposal. If a shift to semesters were recommended and then approved by the Senate and the Board of Trustees, studies by the Ad Hoc Committee on Semesters regarding the implementation of the conversion would begin in the Spring quarter of 2009. It is anticipated that all work on curricular and other related matters would be completed by the end of the 2011-2012 academic year. The new academic calendar would come into effect in the autumn of 2012.

COMMITTEE PROCESS

The ad-hoc committee was charged with (1) analyzing all materials disseminated by the two previous semester review committees, and (2) deliberating all necessary and sufficient research that would enable the committee to propose that either the University adopt a semester calendar or not. In order to acquire enough information to develop such a proposal, the committee began its investigations through shared assignments and follow-up discussions in weekly meetings. The scope of this work led members of the committee to:

- form two subcommittees to investigate questions and concerns surrounding funding responsibilities (the budget and finance subcommittee), and possible calendars (the calendar models subcommittee);
- meet with Provost Alutto and Vice-President Shkurti to ascertain how funding liabilities would be addressed;
- study conversion documents describing the respective processes at Ohio University, the University of Cincinnati, and Wright State University;
- discuss with colleagues from these schools the issues and challenges of converting -- through e-mail, conference calls, and a meeting at Wright State University;
- meet with Peter Zetterberg of the University of Minnesota to understand key problems and recommendations for an effective conversion process;
- study the calendars of 31 different universities, including all OSU benchmarks and all CIC institutions except those that remain on quarters (UCLA, the University of Washington, and Northwestern and Chicago, respectively);
- investigate conversion results at the University of Minnesota, a benchmark land grant university that converted from quarters to semesters in 1999);
- meet with the members of the Arts and Sciences Committee on Curriculum and Instruction;
- meet with the presidents of OSU’s sanctioned student governance bodies, USG, CSG, and IPC;
- consult with Dr. Alan Kalish, Director of Faculty and TA Development about course redesign, student learning styles and related university resources;
- participate in discussions with members of the Ohio Faculty Council about common semester conversion issues;
- meet with the Council for Enrollment and Student Progress;
• discuss faculty concerns at three meetings of the Faculty Council;
• meet with to solicit recommendations and feedback from members of Faculty Cabinet;
• meet with members of AAUP in an open forum;
• present details of a proposed calendar model to the USG senate;
• describe the committee’s work and recommendations to an open student forum;
• provide updates on committee progress to the University Senate;
• ascertain whether major impediments to converting, such as an inadequate Student Information System, still existed as “deal-breakers.”

On February 13, 2009, following three months of meetings and extensive investigation, the committee agreed that it had acquired sufficient information and concluded that no insurmountable obstacles stood in the way of a conversion to semesters. Accordingly, it voted on the following proposal:

NOW BE IT THEREFORE RESOLVED that The Ohio State University adopt a semester calendar with no fewer than 65 days of instruction in each semester to take effect no earlier than Autumn, 2012.

The resolution passed by a vote of 15 in favor, 0 opposed. One member was absent for the vote.

AXIOMS

The committee determined in its initial meetings that a set of guiding principles or axioms would helpfully inform all deliberations. We subsequently developed the following list of axioms that describe the qualities of both the product (a newly adopted semester calendar) and the process of making the transition (the implementation).

The Product. A successful conversion from quarters to semesters will yield the following results:

1. A semester calendar will protect and enhance the intellectual mission and content of all academic programs.

2. The commitment to a strong general education component in all undergraduate majors will be preserved.

3. The distribution of courses by credit hour will be justifiable as judged by the impact on faculty workload and on student progress toward a degree.

4. The total amount of instruction needed to meet degree and accreditation requirements offered in any major or minor program will be approximately the same in a semester calendar as in a quarter calendar.
5. The beneficial relationship among programs will be maintained and enhanced, particularly in the service of one program area to another and especially in inter-departmental and interdisciplinary course offerings.

6. A semester-based calendar will not require substantially greater financial resources when implemented than its quarter-based predecessor.

7. A semester-based calendar will be justifiable in terms of space requirements for classrooms, laboratories, offices, and other university resources.

8. A semester-based calendar will not alter faculty allocations of time devoted to teaching, research, and service.

9. A semester-based calendar will enable substantial flexibility in stimulating and accommodating innovative approaches to course length and scheduling.

10. A semester-based calendar will facilitate opportunities for specialized programs, internships, international study, research initiatives, and service learning projects.

**The Process. A successful conversion from quarters to semesters will ensure consideration of the following concerns:**

11. The conversion of academic programs should be carefully coordinated to preserve the integrity of programs, especially those with an interdisciplinary focus and involving the intellectual resources of more than one department.

12. The impact of the conversion to semesters on students should not disrupt the academic progress toward degrees.

13. Provisions should be made to minimize complications created in the transition year by providing for additional and intensive student advising that accommodates the transition with a liberal treatment of exceptions, course substitutions, and other requirements.

14. Non-instructional staff will not be expected to increase their workload or time commitments during the transition process.

15. It is recommended that each department select an individual who will be compensated to serve as the coordinator for the redesign of courses, majors, minors and related programs.
SEMESTER CONVERSION FEASIBILITY

The costs of conversion from quarters to semesters involve a complex set of questions that few individuals can solely answer. Some involve huge expenditures that indeed, can be “deal breakers.” For example, the 2001 “Chism Report” stipulates among its recommendations that “the new Student Information System (SIS) be fully functional prior to a switch to semesters.” A subsequent reference in that report estimated the SIS costs to be approximately $50 million, rendering conversion at that time infeasible. In the years following that recommendation, the SIS is now nearly complete and its costs have been largely paid and accounted for.

In 2009, the budget and finance subcommittee (Don Haurin, Brian McEnnis, Harald Vaessin, Ingrid Werner) in collaboration with the Senate Fiscal Committee compiled a list of 12 key questions discussed at length by the entire ad-hoc committee and was presented to Provost Alutto and Vice-President Shkurti. In his response, Provost Alutto identified no obstacles of similar scope that would make conversion infeasible by 2012. He wrote:

*It is important to note that while there are “costs” involved, virtually all of these involve one time allocations of cash rather than continuing costs. In addition, these issues should be placed in the context of an economic and political set of realities that argue for moving forward if the costs of transition are not unmanageable. For example, at a time when the Governor and State Legislature are focusing limited resources in higher education, and [on] Ohio State in particular, it is important that we follow through on expectations that we will actively support the concept of a reasonably integrated system of higher education for Ohio. In addition, we have a Chancellor who has designed funding systems that support the recognition of differential resource allocation based on quality and distinction. His plans assume greater coordination between units of higher education with Ohio State playing a leading role.*

With this context, the provost described his responses to the committee’s questions about cost of conversion in a letter dated February 18, 2009. (Please see Appendix A for the full contents of the Provost’s letter to the committee.) The total costs as estimated by the Provost amounted to a range of $6.3 at the low end to $8.8 million at the high end. These funding levels were considered by the committee to be low, “minimally sufficient” at best. Several committee members expressed concerns that additional funding would be required, particularly in the areas of advising for students enrolled during the conversion and in support of faculty research and professional development leaves. We recommend that the Provost regularly monitors and assesses the real funding needs of all aspects of the conversion and that he commits to funding them adequately.
SEMESTER CONVERSION DESIRABILITY

In its review of previous semester conversion studies, the committee acknowledged that student and faculty preferences for quarters or semesters vary based on certain assumptions and experiences. This decades-old variance continues to be true today, especially considering recent conversations campus-wide. As revealed in the “Chism Report,” there is no clear pedagogical advantage to one calendar system over the other. While the issue of pedagogy is clearly relevant, different disciplines profit from different pedagogical schedules, and the divergence of human learning styles and capacities often require unique information bundling. For example, learning languages, writing extended works, and mounting artistic performances and exhibits often benefit from distributed rather than massed practice. One approach will not be seen as equally beneficial for all.

Proponents on either side of the calendar debate can readily cite the perceived advantages of both systems. Rather than reiterate them here, we direct readers to the yet-relevant listing on pp. 48-49 of the “Chism Report” which can be found at this URL:

http://senate.osu.edu/Reports/Calendar/CalendarReport01.pdf

The calendar models subcommittee was formed in conjunction with the Council of Enrollment and Student Progress, (CESP), the senate committee charged with reviewing recommendations related to the university calendar. Its members (Anne Smith, Chair of CESP, Tim Gerber, Robert Gustafson, Meghan Meredith, Josh Rackers, Allen Zimmerman, and Carl Zulauf) concluded that the most desirable semester plan would be one that afforded students and faculty the greatest flexibility in scheduling courses and taking advantage of unique opportunities for teaching and learning.

In this context, the subcommittee created and recommended to the larger ad hoc committee a semester calendar with the following distinguishing features:

1. Two semesters of at least 65 days of instruction in each;
2. A winter term of approximately three weeks;
3. A May term of approximately three weeks; (which may be connected to)
4. A summer session of approximately nine weeks that may be divided into three terms of approximately three weeks each.

In this model, the academic year would begin at approximately the beginning of September and conclude in early May. Each semester would include a full week of break, reading days prior to exams, and one week of exams. The two short terms following each semester are designed to accommodate international study abroad, special projects, short courses, and research initiatives.
The full committee endorsed moving this model forward for further discussion by Faculty Council and the Council on Enrollment and Student Progress.

Please see the attached DRAFT model (Appendix B), for an illustration of what such a calendar might look like. [Note that typical class time may be adjusted to meet the spirit of Axiom #4 above. e.g., a typical 48-minute class period in the current quarter system would become a 60 minute class in the semester calendar.]
Appendix A: February 18, 2009 Letter to Ad Hoc Committee from Provost Alutto

February 18, 2009

TO: University Senate Calendar Conversion Committee

FROM: Joseph A. Alutto, Executive Vice President and Provost

SUBJECT: Conversion to Semesters – Responses to Committee Questions

The committee has requested clarification of a number of issues involved in any conversion from quarters to semesters. Responses to these questions are noted below. It is important to note that while there are “costs” involved, virtually all of these involve one time allocations of cash rather than continuing costs. In addition, these issues should be placed in the context of an economic and political set of realities that argue for moving forward if the costs of transition are not unmanageable. For example, at a time when the Governor and State Legislature are focusing limited resources on higher education, and Ohio State in particular, it is important that we follow through on expectations that we will actively support the concept of a reasonably integrated system of higher education for Ohio. In addition, we have a Chancellor who has designed funding systems that support the recognition of differential resource allocation based on quality and distinction. His plans assume greater coordination between units of higher education with Ohio State playing a leading role. The concept of one format for delivery of instruction, facilitating student, faculty and resource utilization across the system is central to such plans. This consideration should certainly inform, although not determine, any discussion of cost of conversion.

I should also note that many of the questions posed by the committee cannot be answered with precision. Responses depend on a variety of different assumptions. Thus it is important to keep in mind that these are best estimates. Related to this, a number of analyses have been forwarded to me that make assumptions that are simply not reasonable, include inaccurate information, or omit issues that serve to affect final estimates of cost. I would ask that the committee forward to my office any additional estimates so they can be reconciled with central information. In each of the following responses my office has attempted to clearly examine assumptions and the reliability of estimates indicating where we believe there will be the greatest uncertainty as to projected outcomes.

1. What will be the impact on faculty compensation, particularly 9 month appointments? – There will be virtually no impact on short or long range compensation for individual faculty. The projected impacts on university
budgeting are estimated to be negligible as illustrated in Appendix A. Interestingly, when a faculty member receives “two checks” the first month of overlap he/she will see that benefits are only deducted from one check, providing a bit of “bonus” to the second check. Technically, a faculty member receiving a “second check” the first September of conversion will receive a check that is a bit smaller than one that would have been received at time of retirement (e.g., 5, 10, 20 years later) but would also have had use of those funds for the years between transition and retirement.

2. **How will the change affect support for faculty leaves?** – Current policy in the one unit that is on semesters (Moritz College of Law) is that faculty receive full pay for one semester on sabbatical and 2/3rds pay if they take a two semester sabbatical leave. The cost for this is borne by the TIU. We expect to follow this policy going forward.

3. **How will the change affect support for the coordination and redesign of courses, majors, minors, programs?** - The assumption here is that every unit will identify at least one individual to coordinate these activities. In some units this will be a relatively easy task but in other, larger units, it will require significant time and effort. Support for this will be determined and provided by each unit with an assumption that a maximum commitment of one course reduction from normal teaching and 1/9th summer support may be justified. This unit level of support would be provided only for the time of transition. This cost will be controlled by the unit through its internal policies.

4. **How would changes affect faculty teaching loads?** - Teaching loads currently vary considerably across the University making it difficult to project individual impacts of a semester conversion. As other universities have adapted to this change, quarter courses worth five credits have tended to convert to three credit hours under semester formats. In effect, the total number of courses taught by a faculty member will tend to remain the same. For example, given the proposed calendar developed by the committee the total number of classroom/contact hours required for a course will actually be considerably fewer than is currently the case (e.g., a three semester credit course generating 39 contact hours vs. 50 contact hours for a five credit quarter course). Thus, roughly speaking, there should not be any significant increase in teaching loads experienced by faculty, but again, that will vary by individual and department/program decisions.

5. **What will be the impact of implementation activities on faculty time and will there be incentives for units that make transitions earlier than expected?** – Faculty are expected to normally revise courses, redesign programs, change curriculum, etc., to meet deadlines. In addition, this is a one time event, although a very significant one. Finally, we are anticipating a three tiered process in which units with more complicated changes will have a longer period of time to complete their proposals. As a result there will be no centrally provided cash
incentive payments for units or individuals who complete their planning ahead of or on time.

In a related issue, the calendar being developed by the committee is structured in such a fashion that faculty can link together extensive periods of time for research purposes. This is an issue that has been addressed successfully by our current and aspirational peer institutions without the level of flexibility anticipated in the projected calendar developed by the committee.

6. **What will be the cost of information technology upgrades?** – The new SIS can be reconfigured to support semester operations in a similar fashion to what has been done to provide functionality for the Moritz College. However, this will require additional one time investments for system upgrades and modifications. Based on planning assumptions including minimal external consulting resources, data conversion, process re-engineering and system alterations, converting the SIS, other systems and interfaces to support semesters across the university, it is estimated that the activity will take 18-24 months and cost $5-7 million for labor and one time hardware and software purchases.

7. **Do we have adequate classroom and laboratory capacity to handle additional class and laboratory requirements?** – Current surveys of space usage indicate that there is adequate space for classrooms and laboratories, particularly if we use the full day and week for scheduling purposes. As part of our review of space usage and facilities deferred maintenance, such increased space utilization will occur even if we remain on a quarters system. One difference is that in a quarter format we would be in a position to eliminate underutilized classroom/lab space while in a semester format we would expect to use some of that excess capacity for classes. Completion of the instructional space study that compliments the Academic Facilities Planning initiative will more completely inform decision-making to improve the overall type, quality and utilization of our facilities, including pool and unit-assigned instructional and laboratory space. Appropriate quarter to semester credit and contact hour conversions must be used in such analyses as would any changes in delivery modes. What can be said is that both semester and quarter formats will have to deal with limited access to 350-500 seat classrooms. All of the above are issues being explored in ongoing studies by external space planning experts (e.g., Sasaki).

8. **How would we handle potential enrollment declines due to “loading up of credit hours prior to conversion?”** – Should this prove to be a problem we may well place a limit on the number of hours that can be completed in quarters prior to the conversion, thereby limiting revenue losses or by increasing tuition charges for enrollments over some limit. If there is a sense that we will experience a credit hour drop at the beginning of the semester conversion we will most probably increase enrollments from either incoming freshmen or transfer students to offset any negative financial impact.
9. **What will be the impact of a change on student financial aid?** – If the larger payment required for semesters (i.e., total bill in two payments rather than three) proves to be a problem students will be free to use the T.O.P.P program, allowing them to pay monthly and stretch their commitment over the course of the year. SFA and the Budget Office are examining the interaction pattern between tuition/fees and financial aid to be certain that during the year of conversion we are prepared for any temporary cash-flow dislocations. This is not expected to present significant difficulties.

10. **Will there be negative implications for external funding of research?** – There would not seem to be a significant impact on grant applications or funding cycles. As of now, there are grants with start dates that span every month of the year and this would not change with a semester calendar. Some faculty have indicated that the grouping of research time might be impacted (i.e., being able to string spring and summer or summer and autumn together for research). Alternatively, some faculty members have indicated that our current calendar makes it more difficult to do collaborative projects with faculty from other institutions. Overall, percent effort on grants should not be substantially affected by conversion to semesters. Summer salaries are limited to a maximum of three months by most federal agencies and that would not change with a different academic calendar. One upside to switching to semesters is for student research. The Summer Research Opportunities Program (SROP) in the CIC is intended in part to allow students to participate in research on other campuses. Because many of these campuses are on semesters, now, we do not receive as many students from other universities here and it is more difficult for our students to go to other campuses.

11. **How will we handle anticipated increases in student advising needs?** – We plan to increase academic advising support during the period of transition. This will be handled with cash allocations for the hiring of consultants and special overtime allocations as we deal with the peak year or two of need for increased advising services. Such temporary transition funds will be provided by the provost’s office and are not expected to exceed $500,000-$600,000 over the transition period.

12. **What will be done to assure adequate administrative and communication support for the change process?** – It is anticipated that the provost’s office will recruit temporary faculty assistance to guide and monitor activities over a three year period. These activities will be integrated with and shared among existing vice-provosts as well. It is anticipated that $200,000-$300,000 per year will be set aside by the provost’s office to support this activity.
APPENDIX B: DRAFT GRAPHIC MODEL OF SEMESTER CALENDAR

- Regular Semester Instructional Days
- Breaks
- Final Exams
- Special Terms
- Summer Intensive Term A
- Summer Intensive Term B
- Summer Intensive Term C

Holidays (2012-2013):
- Thanksgiving week: Nov 19-23
- Labor Day observed: May 19
- Veterans Day observed: Nov 20
- Thanksgiving: Nov 21-22
- Christmas Week: Dec 24-31
- Martin Luther King Day: Jan 21, 2013
- Memorial Day: May 27
- Independence Day: July 4
Report of the College of Engineering Performance Plan Acceleration Task Force

DRAFT

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respectfully submitted on behalf of the COE PPAT Committee,

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Report of the College of Engineering Performance Plan Acceleration Task Force

1. General Premise and Summary
The College of Engineering Performance Plan Acceleration Task Force (PPAT) was formed with a goal to make bold recommendations that will accelerate the implementation of the College of Engineering Performance Plan. Included and highlighted within this goal are specific charges required of the PPAT to develop and recommend innovative solutions that address specific issues raised in the Doctoral Program Review and in doing so, assist the College in reaching its Performance Plan goals with fiscal soundness and vitality. Hence, all deliberations were conducted within an inclusive context of promoting a modified college structure (both real and ideological) that the PPAT suggests is necessary for Engineering to expeditiously reach the stated goals of the Performance Plan. Thus, overarching issues that influenced the deliberations were the College’s overall quality and impact, its ability to function at the highest level in the current challenging economic climate, its ability to be nimble and maximize its relevancy with respect to global and interdisciplinary research trends, and its ability to attract the best and brightest students and faculty. The goal is to provide the Dean’s Office with a coherent and inclusive set of specific department/program level recommendations that address issues raised in the Doctoral Program Review and build toward an evolved college structure that will enable the Performance Plan to succeed in an accelerated timeframe. Since the focus of the PPAT revolved around the Engineering graduate program and research, the ramifications of these recommendations on undergraduate and other aspects of Engineering, were not addressed in any substantive fashion, but would have to be considered during the implementation of these recommendations.

2. Background
The College of Engineering Performance Plan Acceleration Task Force (PPAT) was convened in mid-November 2008 at the request of the Interim Dean of Engineering, with the explicit task to make recommendations leading to accelerated implementation and impact of the College of Engineering Performance Plan, with primary focus on the College Graduate and Research programs. The PPAT consists of the following COE Faculty Members:

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The PPAT was provided with a set of specific charges derived from the Graduate School Assessment of the College doctoral programs and the College’s internal assessment of the same. The PPAT was required by the Dean’s office to make recommendations based on these charges. The specific issues to be deliberated and discussed were: (1) the future of Aeronautical and Astronautical Engineering, City and Regional Planning, Civil Engineering, Industrial and Systems Engineering, Geodetic Sciences and
Surveying, Welding Engineering, Aviation and Nuclear Engineering, each of which scored deficiencies noted by the Graduate School Assessment of the Doctoral Program; (2) recommendations on the administrative location of the Knowlton School of Architecture, i.e. to remain within Engineering or be a stand-alone entity or be part of another college; and (3) potential strategic arrangements between key departments within the College. The PPAT was also tasked with the more general charge of making recommendations which, through their implementation will allow the entire College to achieve the goals of the Performance Plan and beyond.

3. PPAT Timeline and Process

Due to the complex nature of the tasks, the significant impact of the recommendations on the programs and departments of the College, and in order to understand and take into account sensitivities and historical issues within departments and programs that otherwise could not be appreciated by the PPAT group to the level needed in order to generate an informed set of recommendations, the following careful process was implemented in the short timeframe provided to the committee:

1. The PPAT member(s) from each department or program in question and others of interest to the PPAT were requested to prepare a 1-2 page summary of the local situation within each department/program, to be distributed to the entire PPAT for review and comment. These were: Welding Engineering (WE), Industrial Systems Engineering (ISE), Aeronautical and Astronautical Engineering (AAE), Aviation, Nuclear Engineering (NucE), Biomedical Engineering (BME), City and Regional Planning (CRP) and the Knowlton School of Architecture (KSA), Civil Engineering (CVL), and Geodetic Sciences and Surveying (GSS).

2. To provide context and additional background, a set of recent documents generated either internally or externally, including the College of Engineering Performance Plan of 2008, the College’s Internal Assessment of its Doctoral Programs, the Graduate School Doctoral Program assessment, statistical tabulations of various rankings and performance metrics of the College and its departments and programs (e.g. PhD students graduated and advised, publication records, funding, faculty profiles, etc) were distributed and discussed at the outset. The purpose here was twofold: (1) to ensure the PPAT could make recommendations within the appropriate context of quality given the diversity of the fields being discussed and thus could justify its recommendations with objectivity and (2) to gain a more external view of how the College performance stacks against peer institutions and so that the PPAT recommendations could impact the College as an external force, and avoid this from being just another internal retooling exercise. The sets of information within these documents were discussed in detail, giving the PPAT a common ground on which it could begin its deliberations.

3. Each individual who contributed a written summary was asked to present the situation to the entire PPAT for open discussion. The intent was to introduce a certain level of understanding and appreciate per department/program for the entire PPAT and also to provide an opportunity to note errors or inconsistencies in the Doctoral review early in the process so that the PPAT could deliberate from a sound base.

4. The PPAT discussed and deliberated each program listed in (1) above in great detail, resulting in various levels of recommendations to address the issues raised by the Doctoral review and also resulting in requests for clarifications as appropriate, since in more than one case inaccuracies in the Doctoral review were identified.

5. Once each department/program was discussed, the PPAT decided it was imperative to explore the much larger issue of COE as a single entity, noting that the programs called out in the Doctoral Program Review constituted a minority of the aggregate COE faculty and students. Significant discussions ensued regarding the structure and strategies of COE so that the goals of the
Performance Plan could be met, with an objective that the set of recommendations be integral within a college-wide context, inclusive of all programs, highlighting the need to advance the quality and productivity of faculty and graduate programs in every department and program regardless of how they graded out in the Doctoral Program assessment. In other words, all recommendations are made with the goal to have each and every faculty member find a College structure than unlocks their potential to maximize quality and productivity.

Implementation of this process began in mid November 2008, immediately after the PPAT was formed by the COE Interim Dean. Due to the challenge of achieving the stated goals in a timely fashion given this short time period in which the PPAT could deliberate, the PPAT agreed to meet weekly for meetings often lasting up to 4-5 hours per session. The dedication of the PPAT members was remarkable.

4. Findings and Recommendations

Summary of Recommendations (details in next section)

1. Aeronautical and Astronautical Engineering (AAE) be realigned by merger with Mechanical Engineering (ME), leading to the creation of the Department of Mechanical and Aerospace Engineering.
2. Aviation be realigned within the recently formed EEIC (Engineering Education Innovation Center) as a cross-disciplinary undergraduate degree program within the College of Engineering.
3. City and Regional Planning (CRP) be re-aligned with the Knowlton School of Architecture’s (KSA) core by strategic use of retirements, hires and curricular development. This will put KSA in a better position to determine its optimum administrative location within OSU.
4. Civil and Environmental Engineering and Geodetic Science (CEEGS) be restructured and realigned, with strategic reinvestment for its component programs.: Eliminate GSS graduate program, incorporate CoE GSS faculty into a restructured CVL graduate program, reinvestment in growth areas - energy, environment, green infrastructure, and geoinformation, create mechanism to exclude FTEs associated with EEIC from evaluative metrics for CEEGS.
5. Industrial, Welding and Systems Engineering (IWSE) be restructured to support the transition and refocus to Integrated Systems Engineering by moving Welding Engineering outside the department
6. Welding Engineering (WE) program be divested from Industrial Systems and Welding Engineering and realigned by merging with Materials Science and Engineering (MSE) following Faculty Rule 3335-3-37, Alteration or Abolition of Units.
7. Nuclear Engineering be modestly reinvested through targeted hiring, coupled with closer realignment with the Department of Mechanical Engineering and the College’s energy initiatives.
8. Biomedical Engineering be reinvested through the hiring of senior faculty, finding a home for the department and undergraduate program on main campus, and the formation of a college-wide task force to develop strategies to further strengthen the BME program.
9. Both Electrical and Computer Engineering and Computer Science and Engineering departments seriously and immediately explore mutually beneficial scenarios leading to realignment, reinvestment, and possible merger of the departments.

If all recommendations are followed to the maximum possible extent, this plan will optimize and strengthen the College by reducing the number of departments/schools from 12 to 9 (merge AAE/ME, move Aviation into EEIC, merge ECE/CSE), eliminating 1 PhD program (GSS), restructuring 2 programs (CRP and CVL), realigning 1 program (WE), and targeting reinvestment in several specific areas.
**Context**

Prior to making recommendations on specific programs and departments as just outlined, the PPAT had deliberated extensively on the question of what potential barriers may exist in the College that could hinder achieving the levels of excellence sought by the Performance Plan. These discussions generated a context within which, a coherent set of specific recommendations could be made that are in full alignment with the goals and needs of the College. The result of these discussions is a recommendation on the structure of the college as a whole.

The PPAT recognized that a primary issue in the College that may present itself as a significant barrier against COE reaching its performance plan goals may be the traditional structure of the College itself, which has followed a path of evolution based on historical strengths in the classical fields of engineering and the undergraduate pedagogy of these distinct fields. Certainly this surprises no one since the classical fields of Engineering at OSU are indeed strong and undergraduate teaching is a central mission of the COE. However, the classic rigidity of this structure tends to make adaptability to emergent fields difficult, especially when those fields are between the classical engineering disciplines rather than within one of those cores. This is a natural evolution of engineering as an entire community and is fully based on successes for the past 100 years of engineering. In our College, the result of that is the presence of departments that at times may include oddly appended programs, others that could be better tethered to the college core, and gaps between the traditional cores. The PPAT strongly felt that this issue must be explored, addressed, and commented on prior to determining just how the various departments and programs singled out in the Graduate School report should be evaluated. In some cases the reasons for deficiencies might well be the structure of the College, and we wanted to be sure we understood all angles to the questions that have been raised.

Figure 1 shows a simple schematic of what the PPAT suggests the COE should strive to look like for it to be a consensus top 10 college from both an ideological and practical perspective. This “tee” structure is based first on sustained strengths within the core disciplines and departments that are the pillars of Engineering, and second based on a parallel level of sustaining and expanding backbone that binds the core disciplines via key thrust areas, shared research infrastructure, new initiatives, centers, institutes, unique programs, etc. such that every core can participate as desired or needed across a variety of fields.

![Figure 1](image_url)

**Figure 1.** Suggested schematic for a College structure that can respond to global opportunities in a nimble, cost-effective fashion. The “connective tissue” across the top of the “TEE” enables low barriers to collaboration, fiscal efficiency and a strong support structure for all in the College.

In this model, the core disciplines would be the strongest, most sustainable departments and programs, i.e. pillars of the College from a discipline standpoint. In the context of the PhD program assessment by the Graduate School, these would be those departments and programs grading very highly in that study. The backbone across the top of the TEE enables maximum leveraging of major research facilities and infrastructure (as well as administration), and this should be a primary goal since this enables true interdisciplinary collaboration from multi-discipline sources as well as enabling fiscal efficiency with reduced redundancy.
A basic tenet of this recommendation is that proliferation of departments and programs at the level of a core discipline without regard to how this fits into *a priori*-defined, unified college-wide goals must no longer be allowed. Figure 1 shows, and what we endeavor to explain, is that the backbone is, in fact a “connective tissue” between, surrounding and even permeating (and amplifying) the core traditional strengths of Engineering at OSU and that there be a structure and process to allow both the core and connective tissue to enter into symbiotic relationships, all safely couched within the College’s superstructure. To move into this structure requires re-organization and re-aligning of specific groups, programs and departments. When major, interdisciplinary opportunities present themselves, the college itself should be able to easily mobilize groups to add to the connective tissue, as it is often the case that most major new agendas are too complex, have too short a time fuse and require unusual infrastructure such that most individual departments cannot respond effectively. To a large degree, the formation of TIEs, centers and institutes are designed to address this issue and become this connective tissue. Having faculty formally jointly appointed in some fashion to departments AND centers may assist connectivity. Further, this connective tissue must itself assist in forging an appropriate set of courses that faculty in joint appointments can teach and remove the traditional overhead inherent in cross-listed courses and discipline specific counting of course requirements for such faculty. Current barriers in conducting research and manning staff across the joint disciplines should also be eliminated.

There is another benefit that may be of even more importance for the College to achieve the level of excellence sought by the Performance Plan. Our analysis suggests that COE may be in danger of losing its ability to attract and retain the best and brightest students (not to mention faculty). This might be because those individuals generally desire to apply their skills and knowledge to truly multi/interdisciplinary problems. Thus it is important that the college structure be obviously attractive to these individuals. The PPAT is not in a position to advise the College as to how to implement this structure. But, the PPAT strongly encourages a structure that tends to generally match the research agenda nationally and internationally since it is the activity of research that attracts top faculty, attracts top graduate students, enhances reputation, and ultimately defines the (r)evolution of engineering and its many disciplines down to the undergraduate level, and this is because the global issues (not the discipline issues) attract the imagination of bright K-12 students and potential donors alike.

So it is within this context of transitioning from less than optimally connected boxes of departments and programs with solid boundaries, to pillars of disciplines with intimate interconnections that we make the specific recommendations on a department and program basis. We urge the College of Engineering to seriously consider this strategy and act with haste so that this model can become reality.
**Required Recommendations of Specific Department and Programs**

This section focuses on those recommendations that were specifically required based on the Doctoral Program Review and the charge to the PPAT. Each program/department reviewed in this report is described in a somewhat consistent format. In some cases, recommendations were isolated to the PhD program itself, whereas several programs required somewhat broader considerations for which there exists the need for more elaboration beyond this report. The summary recommendation for each program is organized in the following format: (i) PPAT recommendation, (ii) brief summary of program background and doctoral assessment result, (iii) discussion of the 4 options available (reinvest, realign, restructure, disinvest) and their relevancy to the particular program.

(I) **AERONAUTICAL AND ASTRONAUTICAL ENGINEERING (AAE)**

**Recommendation.** The committee recommends that AAE be realigned by merger with Mechanical Engineering, leading to the creation of the Department of Mechanical and Aerospace Engineering.

**Background.** The Department of Aeronautical and Astronautical Engineering (AAE) was formed in 1948 and from around 1960 - 1990 was a consistent “top 10” Aerospace Engineering department nationally. AAE has been historically strategic to the college of Engineering and to OSU, due in part to its sustained excellence in multiple areas and also to its proximity to NASA Glenn, Wright Patterson AFB and to GE Aerospace, which together make OSU a naturally central location for high impact aerospace research and education. However, AAE entered an era of some uncertainty from 1994-2003 during which it was merged with various smaller departments within COE, losing some of its historic presence. In 2003 a committee of internal and external members reassessed AAE and decided to revitalize and strengthen AAE. As a result, of the 10 faculty members in AAE, 6 have been hired in the past 5 years, not including 3 other faculty positions were moved from AAE to Mechanical Engineering before 2003. Additionally, AAE currently has active searches to fill 2 more positions that are endowed senior faculty positions. Hence, AAE has in essence been receiving reinvestment by the College since 2003.

In spite of this important positive progress, there remain issues noted by the Graduate School review that led to a conclusion that AAE must be reassessed or restructured in order for the College to bring its graduate program up to the levels of excellence it expects from its Performance Plan. Specifically these issues are the size of the faculty and the small graduate student population. While not disagreeing with that conclusion, The PPAT notes that the above mentioned reinvestment history might not have been known and considered in the Graduate School review and perhaps a grade of “Premature Assessment - Future Assessment Required” might have been more appropriate for the AAE situation.

**Options and Process.** Among the options for programs the committee was asked to consider (disinvest, reinvest, realign, restructure), the committee believes the best overall course for AAE is realignment through a merger with the department of Mechanical Engineering.

The committee noted that a thorough reassessment recently occurred (2003) and appropriate moves to reinvest were recommended at that time and taken, some of which are still in effect. However, the committee notes that even with these moves there is sufficient cause (low graduate student population, relatively small faculty size, lack of fiscal support to grow beyond current plan) for a restructuring of AAE in order to achieve the level of excellence commensurate with the College goals. It is viewed that AAE is a critically important component of the College of Engineering, due in part to the need for a strong AAE program in a state with a very strong aerospace presence. Since there is already strong synergy and collaboration at the research level between AAE and ME, and faculty who are already joint between the departments, and there exists overlap of fundamental principles between the two departments, merging with Mechanical Engineering would help to stabilize AAE in its current growth.
trajectory, enhance its reputation, generate a healthier level of student interest and PhD production, and also expand the range of impact by Mechanical Engineering.

The committee also recommends preservation of both undergraduate and graduate degrees in AAE, administered within a renamed Department of Mechanical and Aerospace Engineering.

The committee recommends that serious discussions between the departments and EAD commence immediately. This realignment must take place through the university’s unit merger process, which prescribes development of a merger proposal with appropriate periods of due diligence. This process should permit the development of a merger plan that best meets the needs of the faculty, staff, students and other constituencies involved.

(II) AVIATION

Recommendation. The committee recommends that Aviation be realigned within the recently formed EEIC (Engineering Education Innovation Center) as a cross-disciplinary, stand-alone undergraduate degree within the College of Engineering.

Background. The Aviation Department does not currently have a graduate program. It does have 3 undergraduate tracks: Aircraft Systems (Pilot Certification), Aviation Management, and Air Transportation Systems (new in 2008). There are currently two tenure track faculty members in Aviation and 4 instructors serving a large (~300) undergraduate population. The department proposed a new MS in Air Transportation Systems in 2007 to serve a need for trained professionals to design, create, and manage available air transportation systems. The degree was approved by COE in 2007 contingent on increasing the number of tenure track faculty in the department. However, no additional tenure-track faculty hires have been authorized for the department since that assessment and one tenure-track faculty left OSU in 2008. Though discussions have been ongoing regarding a possible merger of Aviation as a program within Aerospace Engineering to enable an Aviation MS program, this is not warranted in part due to the importance of the AAE-ME merger. The PPAT noted the considerable community interest in retaining the aviation program at OSU, as it has significant industrial support, namely with NetJets as a very interested party.

Since the Aviation Department does not currently have a graduate program, it was not included in the Graduate School review; however its presence with respect to AAE warrants PPAT consideration.

Options and Process. Among the options for programs the committee was asked to consider (disinvest, reinvest, realign, restructure), the committee determined the best overall course for Aviation is to be realigned by inclusion within the EEIC, and retain its independent status as an undergraduate-only degree program.

The committee noted that interested aviation faculty can pursue active research programs in Air Transportation Systems in conjunction with faculty and graduate students from the Integrated Systems Engineering department, a more compatible marriage than with Aerospace or Mechanical Engineering. Thus, the TIE for the 2 Aviation faculty would be within either ISE or Mechanical/Aerospace Engineering. The committee also noted that a merger between Aviation and Aerospace may be counterproductive to the continued health of the Aerospace department and certainly would influence the recommended merger between Mechanical and Aerospace.

The committee recommends that current plans to merge Aviation with Aerospace be put on indefinite hold while discussions are enjoined between the Mechanical and Aerospace departments. At the same time, the committee suggests that the College begin discussions leading to the integration of Aviation as a program within the EEIC umbrella.
Recommemndation. The committee recommends that City and Regional Planning (CRP) be re-aligned with the Knowlton School of Architecture’s (KSA) core by strategic use of retirements, new hires and curricular development. This will put KSA in a better position to ultimately determine its optimum administrative location within OSU at the appropriate time.

Background. The City and Regional Planning Program at Ohio State was first established in 1958 and has nine faculty (7.25 lines) and approximately 100 students. The program emphasizes preparing students to be able to perform on the job as beginning planners and, more importantly, to be able to adapt over a life-long career to the changing public agenda. To do this, the program emphasizes courses with intellectual rigor and a thoughtful approach to decision-making. Moreover, the program provides not only important academic material but also requires students to take at least one studio where they come into contact with real world clients and problems.

KSA’s CRP program has several notable strengths. The program’s emphasis on applying academic teaching to professional practice is especially evident in the Intern Program which is the largest in the country. The program also provides opportunities for numerous dual degree programs, including transportation, law, social work, landscape architecture, environmental science, public policy and management. The program is also home to the Journal of Planning Literature, one of the three major planning journals in the US. Its faculty is very actively engaged in research, with average research revenue per faculty member in 2003-2007 reaching $149,460 which is above the national average.

Despite these strengths, there are challenges that face the program. Its national ranking is good but could be better: according to the Planetizen program survey, of more than 90 departments of City and Regional Planning in the country, KSA’s CRP program ranks: #15 according to Educators; #20 according to Practitioners; #13 for Faculty Scholarly Productivity (see www.academicanalytics.com); retirements and the current financial constraints on new hires put the program in a vulnerable situation for re-accreditation; and the future of the intern program is uncertain in the current fiscal situation (the City of Columbus withdrew its future funding; and as one of three sections, it is not well integrated into the core activity of the Knowlton School of Architecture which is a TIU with a total of 24 faculty and 500 graduate and undergraduate students.

Looking forward, there are opportunities for CRP. The OSU University Senate has approved a CRP undergraduate program which will begin once it passes through the Ohio Board of Regents. The KSA’s Strategic Plan calls for an integrated first year undergraduate curriculum across all three disciplines (Arch, LArch and CRP). Of the nine faculty members, two will retire by summer 2009. Strategic Planning Discussions have led to discussions about CRP’s future direction in the school specifically the manner in which it will recalibrate its focus to better integrate with the other design sections

Considering the current status of CRP and the threats it faces, the Graduate School concluded in the 2008 Doctoral Program Assessment articulated the Graduate School’s position that the CRP doctoral program must “reassess and/or restructure”.

Options and Process. Among the options for programs the committee was asked to consider (disinvest, reinvest, realign, restructure), the committee believes the best overall course for CRP is realignment with the core of the KSA’s teaching activities by careful realignment of focus through the use of retirements. At the appropriate time, this also enables KSA to move toward a unified position with respect to its optimum location, within Engineering, as a stand-alone entity, or within a different college.
The committee does not believe that disinvestment in the CRP doctoral program is warranted at the present time. The program has proven its value by strong placement of graduates in top planning programs in the country and in the public and private sectors. Re-assessment of the doctoral program should be conducted after new hires have been made and integrated into the school and program.

The committee does not believe that disinvesting in the CRP program overall is warranted or productive. This section is integral to the KSA mission and purpose which is about the inter-relationship of socio-cultural practices with material practices through design and planning, at multiple scales (ideas to building components to buildings to cities to landscapes to territories). CRP represents the scale of systems and territories and therefore is a unique part of the mission of the school.

The committee does not believe restructuring CRP within another academic entity on campus is productive or useful for the section of or for the KSA. The KSA needs to move forward with the full strength of its faculty and programs supporting the mission as articulated above.

Greater realignment of the CRP group with the core mission of the KSA is not without risk but it is essential for the KSA to achieve its core mission. The realignment should include investment in new faculty hires using vacancy credit from retiring CRP faculty, expansion of the urban design components of the section through careful selection during the hiring process, integration of undergraduate CRP coursework with Arch and LArch undergraduate coursework, and continued support on the part of the KSA of CRP’s bridging relationships with other departments external to the KSA. Additionally every attempt shall be made to secure new funding sources for CRP’s internship program.

The committee also recommends preservation of doctoral program in CRP at this point in time. The CRP program will strengthen with new hires and deliberate attention to its role within the entire school. The committee notes that this recommendation has been made with input and consensus from the CRP faculty that they wish to remain within the structure of the KSA.

(IV) **CIVIL ENGINEERING AND GEODETIC SCIENCE AND SURVEYING**

**Recommendation.** The committee recommends significant restructuring and realignment combined with strategic reinvestment. Noting that the committee viewed CVL and GSS as part of the same circumstance for its deliberations, the following set of recommendations were made:  

- Eliminate the GSS graduate program and incorporate CoE GSS faculty into a restructured CVL program (graduate and undergraduate) that is aligned with current program strengths  
- Through reinvestment and restructuring, refocus and integrate CEEGS on growth areas such as energy, environment, green infrastructure, and geoinformation.
- Balance ratio of PhD to MS-level students to favor PhD students. Award fellowships to PhD students. Eliminate barriers allowing for a direct route from BS to PhD for select students.
- Focus faculty efforts (e.g., eliminating weak tracks and programs, streamlining teaching)
- Create a mechanism to exclude FTEs associated with EEIC from evaluative metrics for CEEGS.

**Background.** Civil Engineering is an important component of the CoE, as it is critical to supporting our land grant mission. In fact, in the Grand Challenges for Engineering NRC report 3 of the 14 grand challenges fall primarily under civil engineering (manage the nitrogen cycle, provide access to clean water, restore and improve urban infrastructure). Additionally, geospatial information is a growing research area of national importance.
Civil Engineering (CVL) and Geodetic Science and Surveying (GSS) are housed in the Dept of Civil and Environmental Engineering and Geodetic Science (CEEGS). This department is a collection of merged departments: Engineering Graphics, Civil Engineering and Geodetic Science and Surveying. In 2008, faculty originally from Engineering Graphics have been placed in the new Engineering Education Innovation Center (EEIC) but their FTEs remain in CEEGS (none are research active, do not have Category P status in CVL or GSS, and do not report to CEEGS dept. chair). Additionally, five of nine faculty from Geodetic Science have moved to Earth Sciences. The GSS program is now a cross-college program with four CoE faculty members and five MAPS faculty members. As of Fall 2007, the CVL program had 24 faculty with Category P status, with 18 FTEs in CEEGS. A recent analysis of size of graduate programs indicates that the average size of top 10 Civil programs have 51 faculty. Although environmental engineering faculty (current size: 3.5) advise graduate students in civil engineering, there is a USNWR ranking for the Environmental/Environmental Health ranking (OSU rank: 39 of 95). This size is also small compared to an average size of 13 for top 10 programs. In fact, it is the highest ranked program for its size.

The PhD assessment report indicated that improvement is needed for CVL. Further, it stated that improvement must begin with a significant increase in the research and Ph.D. student productivity of its current faculty, and be further enhanced through the hiring of replacement faculty for positions vacated through retirements. The major concerns for the GSS program are the small number of faculty within the CoE, their high teaching load, and the non-standard nature of the program. Significant retirements in CVL and the beginning of replacement hires are already beginning to pay off. For example, last year’s research expenditures per faculty in CEEGS were significantly improved over previous years.

**Options and Process.** Due to the complexity of the graduate programs of CVL and GSS, a simple recommendation of either disinvest, reinvest, realign, or restructure was not possible. Instead, a hybrid of realign, restructure, and reinvest emerged as the best option for the CVL and GSS programs. This recommendation strengthens the CVL program, facilitates integration of the department, and allows for strategic reinvestment in discipline growth areas. Additionally, in the US, GSS is typically found as a component within CVL programs.

The committee does not believe disinvestment in the programs is strategically sound. A thriving CVL program is critical to the COE and land grant mission of Ohio State. Additionally, the GSS faculty in COE though a small group, are visible, active and productive.

Maintaining the GSS and CVL programs “as-is” was not recommended because the size of CEEGS is small and relatively diffuse. The committee strongly feels that the many activities of CEEGS cannot be effectively maintained.

For GSS, a realignment option consisting of moving the BMPS part of GSS to BMPS and leaving the GSS part in COE as a self-standing program was discussed. Although administrative savings may occur, if the 4 faculty in GSS in COE would keep the GSS program, they would have an even smaller program and higher teaching loads. Although the quality is high, the non-standard nature of GSS has less value as a stand-alone entity than as part of a standard discipline (e.g., CVL). Therefore, this option is not recommended.

It is apparent that CEEGS is a collection of groups. The committee strongly believes that GSS faculty need to become integrated into CVL. A name change, better incorporation of GSS faculty into CVL graduate and undergraduate teaching and a department seminar based on cross-cutting research topics are ideas that should be explored. Additionally, the committee felt that CEEGS should carefully consider how to best focus faculty efforts to allow more time for research endeavors. Therefore, realigning GSS with CVL and restructuring CVL focusing and integrating programs and groups in CEEGS is recommended.
Another restructuring need discussed is a legacy of a past merger with Engineering Graphics. A number of EEIC faculty maintain their TIU in CEEGS but have no substantial interactions with the department. The additional faculty of the EEIC, especially in “per faculty” comparisons for CEEGS, skews information compared to other COE departments and Civil and Environmental programs nationally. Therefore, a mechanism is needed allowing FTEs associated with the EEIC to not be included in evaluative metrics for CEEGS.

Further, restructuring by eliminating small sub-groups in CVL is recommended. The many CVL tracks and teaching needs involved increases barriers for faculty interactions between groups, increases teaching loads, and reduces class sizes. A focused strategy to move forward based on thematic cross-cutting research areas would reduce barriers among groups. Incorporation of GSS into CVL would increase the number of faculty, graduate students, and research productivity in CVL possibly improving its ranking.

Finally, for the health of the department and to allow the entire department as a focused group to rise in stature, consolidation is necessary. As they have demonstrated, they are now lean and with careful focus on growth areas a unique opportunity exists to reinvest, rebuilding CEEGS into a successful, well-regarded program.

(V)  INDUSTRIAL AND SYSTEMS ENGINEERING

Recommendation. The committee recommends to restructure IWSE to support the transition and refocus to Integrated Systems Engineering (ISE) by moving Welding Engineering outside the department

Background. The Industrial and Systems Engineering (ISE) program within the Industrial, Welding and Systems Engineering (IWSE) Department at OSU has a long and distinguished history within the profession. The program has enjoyed reasonably good national ranking in the late 80’s and early 90’s when it was ranked between 12th and 15th nationally. IWSE also has had a generally good research funding history (currently #4 in College) although it has struggled of late with the recent downturn in manufacturing and the faltering national economy. Since 2004 the program’s U.S. News ranking has been between 12 (2004) and 19 (currently 18) out of 80 accredited programs in the U.S. (UIUC ranking - 23). Department strengths include the Human Factors/Ergonomics group (considered #1 in nation) and the Manufacturing group that was well funded until recent years. The department merged with Welding Engineering in 1994. The Welding Engineering program is a “one of a kind” program within the United States. While Welding Engineering enjoys a strong alumni base, partnerships with the Manufacturing group have not developed as was originally envisioned. As a result, Welding Engineering has not assimilated well into the department structure.

The department is in the process of changing its focus and image. In order to align itself with the evolving transformation in the manufacturing and service sectors of society the department has initiated a change from “Industrial, Welding, and Systems Engineering” to “Integrated Systems Engineering.” This new name not only reflects the direction of modern enterprises but also reflects the department’s strategic plan that emphasizes the interdisciplinary and multi-disciplinary approach to addressing societal enterprise issues.

The Doctoral Program Assessment and Plan Report (April, 2008) identified Industrial and Systems Engineering as a program that must reassess and/or restructure. The specific comments from the report narrative relative to the ISE program identify two points of concern:

- “City and Regional Planning, Geodetic Science and Surveying, and Industrial and Systems Engineering (is) are not standard disciplines elsewhere, except perhaps for the last. This makes them more difficult to assess form the outside and less valuable to a college seeking to reach the top tier nationally.”
The ISE program response to these two points consisted of the following points and actions:

- The “not standard discipline” comment was identified as a factual error. Supporting information for the mainstream nature of the field was provided.
- The “long times-to-degree” comment was considered a valid comment. The ISE program provided a 5-point plan to respond to the comment. The points included:
  - Restructure grad committee to emphasize program integrity
  - Review graduate faculty Ph.D. membership category
  - Explore reinstituting Ph.D. qualifying exam
  - Monitor “reasonable” progress among grad students
  - Streamline application and review process

All of these actions are now underway.

**Options and Process.** The options available to ISE consist of the following:

- **Reinvest** – While reinvestment generally helps programs, given the budget situation it is important that investments strengthen the emerging fields. Investments must be made strategically to strengthen not only the college pillars but also a college thrust area. In this manner, the college infrastructure can be enhanced. Therefore, to the extent the College is willing to enhance an emerging thrust area it makes sense to reinvest in a component of ISE.
- **Disinvest** - Given the need for ISE support to enterprises throughout the state of Ohio and the nation, this is not an option.
- **Realign** - Given the societal need and the interdisciplinary trends in engineering it is important that Integrated Systems Engineering remain one of the College “pillars” of engineering science.
- The recommended option is to restructure. Given the discontinuity of the Welding Engineering program within ISE it makes sense to restructure ISE so that the “pillar” is strengthened and move WE to a department (MSE, see below) that is a better fit with its focus.

(VI) **WELDING ENGINEERING**

**Recommendation.** The committee recommends for the Welding Engineering (WE) program divestment from Industrial Systems and Welding Engineering and realignment by merging with Materials Science and Engineering (MSE) following Faculty Rule 3335-3-37, *Alteration or Abolition of Units* and using approaches described in the document “The Plan for the Future”, submitted by the Welding Engineering Faculty to the Transition Planning Committee, June 15, 2007.

**Background.** The WE program currently finds itself in a precarious state. Faculty research has declined, leading to a decline in the graduate and research programs and reduced visibility in the research community. Historically, institutional and department support for courses and laboratories has been low thus requiring more faculty time for the routine aspects of the instructional program. As measured by the University fiscal model, the Program is currently operating at a deficit. Recent retirements have reduced the WE faculty to six; a dangerously low level that threatens viability of the undergraduate and graduate educational offerings. Over the past 15 years, there has been a loss of program identity stemming in part from the IWSE merger. Recent changes in IWSE program direction do not appear to favor strengthening of WE, and there are attendant threats to student and faculty recruitment.

Despite its current situation, WE at OSU enjoys a national and international reputation for high quality research and education programs. Current overall graduate program enrollment is now 58 and
undergraduate program enrollment is 96. WE is the only ABET accredited Bachelor of Science program of its type in the country, with its graduates highly sought and well regarded by industry and government. The Program has excellent research facilities and is capable of leading edge research in many areas of welding and materials joining. It shares a modern facility on West Campus with The Edison Welding Institute, which is one of the most highly regarded research and technology organizations in the world dedicated to the subject of materials joining.

Looking forward, there are notable opportunities for WE. The WE faculty estimates that there is $100m - $150m available annually is available through government and industrial sources. The college “Performance Plan 2008” has thrusts in advanced materials, bioengineering, energy, manufacturing, and power/propulsion where welding can play a major role. Closer collaboration with Edison Welding Institute can provide more opportunities for research funding, graduate/undergraduate research and joint use of equipment.

In addition to the circumstances surrounding the WE program, the committee notes the following comments from the Graduate School regarding the WE program in its 2008 Doctoral Program Assessment and Plan. The report states that “The doctoral program in Welding Engineering at present is not strong enough to be viable on its own and is categorized as a candidate for disinvestment or elimination”, yet it also notes that “the program and college should explore strengthening connections with the Edison Welding Institute and industry as a means of gaining additional support”, and that “a more appropriate name for the program would be “Materials Joining Science and Engineering.” In view of the circumstances surrounding WE, the committee understands the divergence presented in these comments and believes it has formulated a recommendation that best addresses the complexity of the situation.

**Options and Process.** It is the opinion of the committee that prompt disinvestment in the PhD program would not support the goals of the College’s Performance Plan, due to the positive comments made above and due to the potential of strategic linkages between the College and the Edison Welding Institute. Without a PhD program, it is extremely unlikely that high caliber faculty could be attracted to WE. Without excellent faculty, no academic programs are viable. Realignment of WE with MSE enables a continuation of materials joining research programs, opportunities for attracting materials joining faculty, solidification of the EWI-OSU linkage, and a cost-neutral continuation of the WE undergraduate program.

The committee does recommend realignment and the appropriate restructuring through a merger with MSE and is optimistic about the outcome. The realignment should include investment in new faculty hires using vacancy credit from retiring WE, expansion of research and integration with the MSE research programs, as well as increasing cooperation with the Edison Welding Institute at the department, college and university levels.

The disciplines of MSE and WE are both rooted in metallurgy and integration of welding and joining into perhaps the best metals program in the country is an intriguing and attractive prospect. In fact, WE students, both graduate and undergraduate take many MSE courses. Bringing WE into MSE would likely enhance the ability of WE to recruit high caliber faculty, which is the core of any rehabilitation effort. Alignment of curricula may enable efficiencies that would help to sustain the WE programs in view of the small size of the present faculty. Collaboration among faculty researchers would lead to growth in research programs.

WE realignment through a merger with MSE is not without risk. There is a possibility for negative impact on reputation for MSE and WE. MSE at OSU is viewed by some as a traditional program strongly attached to its metallurgy heritage and unwilling or unable to modernize as the field of materials science evolves. Incorporation of WE would validate that opinion for some. There are cultural differences
between the two programs that are well documented. These would need to be managed as the programs integrate. The programs would be faced with merging during a period of fiscal regression, with an impending ABET accreditation visit in 2011, and on the cusp of a quarter-to-semester transition in 2012.

The committee recommends that realignment take place through the university’s “3-37” process. This process involves WE and MSE constituencies, and allows for self-determination within an appropriate framework subject to appropriate approvals. The committee also suggests that a revision of the WE Faculty’s “The Plan for the Future” be undertaken and incorporated into the “3-37” proposal and used as the basis for setting the course, resource needs, duration of the probationary period and appropriate benchmarks for assessing the success for any WE program revitalization effort.

(VII) NUCLEAR ENGINEERING

**Recommendation.** The committee recommends modest reinvestment coupled with closer realignment with the Department of Mechanical Engineering and the College’s energy initiatives.

**Background.** The Nuclear Engineering Ph.D. Program is located administratively within the Department of Mechanical Engineering, and is a small program with 15 Ph.D. students and four regular, full-time faculty members (3 Full Professors and 1 Assistant Professor). There are also five part time (adjunct or emeritus) faculty members associated with the program, as well as several part time lecturers. There are relatively few such programs in the country (ASEE counts 21, though the OSU program indicates that only 15 are “credible”). In 2006 the OSU program was ranked 14th out of these 15 programs. The student body is considered good, with an average quantitative GRE score of 731 and an average total GRE score 1244 (weighted three-year average). The faculty advise five Ph.D. students each, on average, and graduate 0.67 Ph.D students each per year, near the national average. The annual average research expenditures are $394,159 per faculty member. OSU is a member of a University Consortium with Battelle that operates the Idaho National Laboratory providing direct access to the principal reactor development research programs funded by the department of energy. OSU operates an Academic Center of Excellence in Instrumentation, Control and Safety within this consortium. OSU also has a research nuclear reactor on West Campus, which provides an excellent facility for a wide variety of research. The program has historically focused on the area of Instrumentation, Control and Safety, and has what is considered a national and world-class strength and reputation in this area.

The primary issue identified by the College of Engineering’s PhD program review was that the small size of the NCL program makes it extremely difficult to realize the goal of advancing it to top ten status (out of 21 programs). The Task Force also noted that the Nuclear Engineering program, while formally part of the Department of Mechanical Engineering, was in fact rather insulated from the ME department as a whole, both in terms of graduate program structure and in inter-faculty research collaboration. Nonetheless it is the conclusion of the Task Force that given the important role that nuclear energy will clearly play in the overall energy policy of the U.S. in the near future it was important that Ohio State University maintain as strong as possible of a presence in the field, particularly as it is currently the only existing nuclear program in the state of Ohio.

**Options and Process.** Among the options for programs the committee was asked to consider (disinvest, reinvest, realign, restructure), the committee believes the best overall course for Nuclear Engineering is a combination of modest reinvestment coupled with realignment to produce tighter integration with the Department of Mechanical Engineering, in particular within the Thermal, Fluids, and Energy interest group. In particular it was determined that significant reinvestment resulting in a completely viable stand-alone program with 18-20 faculty was simply not realistically feasible. Elimination of the program was also not considered a viable option.
A two prong strategy is recommended. First, it is recommended that the College of Engineering find resources to hire two additional faculty members with vision and leadership potential whose primary research interests are in the area of Nuclear Engineering, and who would clearly extend the depth and strength of the program’s research activities. New faculty members who would utilize and improve the research diversity of the reactor facility should be given priority in hiring. The TIU for these faculty members would likely, but not necessarily, be Mechanical Engineering. Second, it is considered essential to the success of the program that greater interaction be achieved between the Nuclear Program faculty and the faculty of the larger Department of Mechanical Engineering. Financial constraints dictate that the only way to significantly enhance the strength and presence of the program nationally will be to leverage its small size with the considerable synergistic interests and research activities of the Department of Mechanical Engineering.
Other Specific Program and Department Recommendations

The PPAT recognized that much of the recommendations required in its charge influenced mostly smaller departments and programs within the College. Since the goal for the PPAT is to accelerate the implementation of the Performance Plan, it was felt that where warranted, several other departments required discussion within the PPAT and received recommendations for their own advancement else the effects of the above recommendations would not have the college-wide impact as intended. Of the programs not targeted above (Materials Science and Engineering, Mechanical Engineering, Electrical and Computer Engineering, Chemical and Biomolecular Engineering, Biomedical Engineering and Computer Science and Engineering), three received PPAT attention: Electrical and Computer Engineering (ECE), Computer Science and Engineering (CSE) and Biomedical Engineering (BME). These are discussed below.

(VIII) BIOMEDICAL ENGINEERING

Recommendation. The committee recommends reinvestment in BME through the hiring of senior faculty, finding a home for the department and undergraduate program on main campus, and the formation of a college-wide task force to develop strategies to further strengthen the BME program.

Background. The OSU Biomedical Engineering Department was established as a research center in Electrical Engineering in 1971, giving recognition to this field as a separate academic discipline involving a unique integration of biology, medicine, and engineering sciences. Offering the M.S. and Ph.D. degrees, the Center became a free-standing entity in 1988 within the College of Engineering. In 1999, the BME Center expanded through a Selective Investment award in cardiovascular bioengineering. After a failed attempt to form a joint department with the College of Medicine, BME became a department within the College of Engineering in 2006. BME has just received approval of its undergraduate program in October 2008.

In the doctoral program assessment, BME was listed in the “New or Developing” category based on its new department status and new undergrad program. In the CoE internal assessment, the BME doctoral program was listed as “Adequate.” BME as a discipline is highly interdisciplinary, and this is reflected in the department, as it has many faculty with split appointments, a large portion of graduate students have their research advisor (and funding) in the College of Medicine, and much of the funding results from collaboration with other departments across campus. BME currently has 15 faculty with at least 20% appointments in BME, with 1 Clinical Assistant Professor, 4 FTE Assistant Professors, 4.8 FTE Associate Professors (1 without tenure), and 1.2 FTE Full Professors (1 FTE is the department Chair). Since the hiring of Prof. Hart as chair, the department has focused on strategic planning, development of the undergraduate major and courses, alignment of the graduate program to correlate with the undergraduate program and faculty expertise, and increasing research funding, including the recruitment of fully funded senior faculty. One of the primary impediments to improving is the BME location, in Bevis Hall on West Campus. Many of the BME faculty have laboratory space spread around campus (in CoM,CoE, VetMed, Nanotech West, Bevis Hall, Dentistry), and the students have to take the bus out to Bevis Hall to attend classes. The undergraduate major requires classroom space for lectures (~100 students), lab courses and experiences within our domain courses, and computer lab courses and homeworks.

The future of BME holds great promise. Since the undergraduate program has been announced, BME has become the most requested major within the college for interested high school students. The interest generated by the BME major should help increase enrollments in other engineering departments. Ongoing collaborations between BME faculty and the College of Medicine are advancing through focused summits to bring together medicine and engineering faculty.
Recommendation. The committee recommends that both departments seriously and immediately explore mutually beneficial scenarios leading to realignment, reinvestment, and possible merger of the departments.

Background. The OSU ECE and CSE departments are two of the three largest departments in the College of Engineering. Nationwide rankings of Colleges of Engineering are strongly correlated to the individual rankings of these departments.

Historically the ECE department at OSU has been ranked highly for more than 50 years, consistently ranging from rankings in the low teens to mid twenties and is currently at the 89+ percentile (26th). The ECE department has several prominent and internationally renowned faculty members, with 23 IEEE fellows and one NAE member. In spite of the quality of its program, the ability for ECE to sustain this ranking, much less improve its position, is being seriously eroded by factors such as its small total faculty size (42), which is far below average for peer ECE departments nationwide (typical departments may be 60-110 faculty members strong).

The CSE department has made enormous progress over recent years, working with relatively limited resources from the college of engineering. Its hiring has been exemplary, resulting in 20 NSF CAREER awardees from its department (roughly 1/3 of the total number of CAREER awardees in the university). The CSE ranking has steadily improved over the years and is currently ranked 31st in the country. CSE programs at other universities that have climbed in the rankings over the last two decades have had substantially greater increases in the size of their faculty.

More recently significant collaboration and interdisciplinary coordination and efforts between ECE and CSE have evolved, with shared efforts in communications, sensing, computer vision and also computer engineering, and jointly appointed faculty.

Options and Process: The committee feels that the time is ripe for both departments to undertake a serious dialogue with each other and with the college of engineering about the possibility of merging. A merger would shore up strengths in areas where each individual department is weak, result in greater visibility of the overall program, reduce certain teaching redundancies, and improve administrative efficiency. However, such a merger could lead the combined departments to reach higher levels of international acclaim and acknowledged excellence only with a reinvestment commitment from the college of engineering. Hence, it is critical to have a realistic and in-depth plan of how the college could enable such a merger to occur. Current successful models of EECS departments across the nation are substantially larger than a merged ECE-CSE department, and thus the college will need to make an investment to grow this merged department if it is to compete successfully at a top level. The committee also recognizes that there are significant cultural differences between the two departments, which may make such a merger challenging to achieve in practice. This is why the committee recommends that all pros and cons of this merger be carefully considered, benefiting from successful models of similarly merged top-ranked EECS programs.
Performance Plan Acceleration Task force (PPAT)
Draft Rollout Process

This document highlights the process for evaluating and implementing the recommendations that emanate from the Performance Plan Acceleration Task force (PPAT) recommendations. The process has three phases culminating in university approval. At any period of time we will allow for proposals that have sufficient support to initiate the university process as described in faculty rule 3335-3-37, alteration or abolition of units.

Phase 1. December - January

The first phase includes deliberations and production of the Performance Plan Acceleration Task force (PPAT) report. This phase has been completed and we have nine recommendations from the PPAT. The nine recommendations are shown below:

1. Aeronautical and Astronautical Engineering (AAE) be realigned by merger with Mechanical Engineering (ME), leading to the creation of the Department of Mechanical and Aerospace Engineering.
2. Aviation be realigned within the recently formed EEIC (Engineering Education Innovation Center) as a cross-disciplinary undergraduate degree program within the College of Engineering.
3. City and Regional Planning (CRP), Landscape Architecture and Architecture must be strategically aligned in a manner in which the units support one another and move towards common and sustainable goals in addition to the goals of the individual units. This can be accomplished by strategic use of retirements, hires and curricular development. Decisions on placement of the KSA must be made (i.e. in the college of engineering, in another college, or standalone) and how that placement can be optimized.
4. Civil and Environmental Engineering and Geodetic Science (CEG) be restructured and realigned, with strategic reinvestment for its component programs. Eliminate GSS graduate program, incorporate engineering GSS faculty into a restructured CVL graduate program, reinvestment in growth areas - energy, environment, green infrastructure, and geoinformation, create mechanism to exclude FTEs associated with EEIC from evaluative metrics for CEG.
5. Industrial, Welding and Systems Engineering (IWSE) be restructured to support the transition and refocus to Integrated Systems Engineering by moving Welding Engineering outside the department.
6. Welding Engineering (WE) program be divested from Industrial Systems and Welding Engineering and realigned by merging with Materials Science and Engineering (MSE) following Faculty Rule 3335-3-37, Alteration or Abolition of Units.
7. Nuclear Engineering receive modest reinvestment through targeted hiring, coupled with closer realignment with the Department of Mechanical Engineering and the College’s energy initiatives.
8. Biomedical Engineering receive reinvestment through the hiring of senior faculty, finding a home for the department and undergraduate program on main campus, and the formation of a college-wide task force to develop strategies to further strengthen the BME program.
9. Both Electrical and Computer Engineering and Computer Science and Engineering
departments seriously and immediately explore mutually beneficial scenarios leading to realignment, reinvestment, and possible merger of the departments.

Phase 2 February - March

Early- Mid February

Once the draft recommendations of the Performance Plan Acceleration Task force (PPAT) are complete, we will form small subcommittees to produce an in-depth examination of all proposed mergers or eliminations related to those recommendations. In their reports these committees will also address items (A thru L) in faculty rule 3335-3-37 (section B2) if applicable. This is needed in order to prepare for the formal proposal. The major task of these subcommittees will be to analyze, investigate and possibly modify the recommendations of the PPAT committee. The following seven groups have been established:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Faculty Committee Members</th>
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<tbody>
<tr>
<td>ME/AE</td>
<td>Mo Samimy (ME), Ahmet Kahraman (ME), Joe Shaw (NASA), Jack McNamara (AE), John Brighton (EAD), Jim Williams (MSE)</td>
</tr>
<tr>
<td>CSE/ECE</td>
<td>Steven Ringel (ECE), Yuan Zheng (ECE), P. Sadayappan (CSE), Leon Wang (CSE), and John Brighton (EAD).</td>
</tr>
<tr>
<td>CEG/GSS</td>
<td>Linda Weavers (CEG), Randy Moses (ECE/EAD), Dorota Brzezinska (CEG), Halil Sezen (CEG)</td>
</tr>
<tr>
<td>AVN</td>
<td>Nawal Tenaja (AVN), Bob Gustafson (EAD), Phil Smith (ISE), Randy Moses (EAD/ECE)</td>
</tr>
<tr>
<td>KSA</td>
<td>Hazel Morrow-Jones (CRP), Jane Amidon (LARCH), John Brighton (EAD), Beth Blostein (ARCH)</td>
</tr>
<tr>
<td>BME</td>
<td>Rich Hart (BME), Derek Hansford (BME), Stuart Cooper (CBE), Dan Sedmak (CoM), Bill Marras (ISE) and John Brighton (EAD)</td>
</tr>
<tr>
<td>MSE/IWS</td>
<td>Rudy Bucheit (MSE), Julie Higle (ISE)</td>
</tr>
</tbody>
</table>

*EAD – Engineering Administration, CoM – College of Medicine

Mid February – March

1) A series of discussions on the recommendations with faculty and leadership in multiple venues have and will occur. A meeting with the College Committee on Academic Affairs (CCAA) was held to alert them to the long-term issues that we will encounter (2/16). There will be visits to every department to discuss the recommendations. Additional meetings were or will be held with the following groups: department chairs (2/5), executive committee (2/12), senior faculty (2/3), one on ones with key leaders, departmental faculty. The dates for the meetings with departmental faculty are scheduled as follows:

<table>
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<tr>
<th>Date</th>
<th>Department</th>
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<tbody>
<tr>
<td>2/11</td>
<td>Civil and Environmental Engineering and Geodetic Science (CEG)</td>
</tr>
<tr>
<td>2/26</td>
<td>Aviation (AVN)</td>
</tr>
</tbody>
</table>
2) After these meetings have transpired and we have gotten faculty feedback we will create an updated set of recommendations that will be developed into a series of proposals following the appropriate faculty rules. It is expected that some of these proposals will be in line with the PPAT recommendations and some will be modified. These proposals together will makeup the College of Engineering draft plan. All proposals will be written using the format outlined in faculty rule 3335-3-37 (section B) if applicable. The due dates for all proposals varies between March 18th and March 25th based on when the subcommittee was formed.

**Phase 3. April - May**

**April - May**
1) The proposals will be disseminated to all faculty and we will allot additional time for faculty feedback. Verbal and written feedback will be solicited thru April 20th.

2) This input will be used to modify the proposals and updated proposals will be produced by April 25th. We will launch the updated proposals to the entire faculty in a Town hall format at that time. The final set of proposals will be distributed to CCAA for review and consideration. Additional feedback will be received by the college and will be used to make additional changes if necessary. The college faculty will vote on the proposals by May 20th. This information will then be forwarded to the Dean for input.

3) All proposals and corresponding materials will then be sent to OAA by the end of May.
Course Syllabi

The following represent best practice of the kinds of information students need to know about the courses in which they are enrolled. This form plate provides guidance to those faculty members preparing new courses in order to help the proposal move through the approval process. Language and format represent adaptable language that can be adapted for any subject.

A syllabus submitted with new course proposals must include the following information. Course change requests with course numbers must also include a syllabus with this information.

I. Information about the course and instructor (pre-requisites, if applicable)
   A. Course
      1. Course name and number
      2. Name and number of course
      3. Meeting time, days of the week
      4. Location
   B. Instructor and teaching assistants if applicable
      1. Name
      2. Phone number and email address
      3. Location of office
      4. Office hours

II. Clear statement of learning goals. This syllabus must contain a statement of learning goals cogent to an intended outcome—what students will be expected to know at the end of the course (rather than what the individual plan to do).

III. GEC outcome. The Faculty of the Arts and Sciences expects that the syllabus for all basic courses contain specific objectives of the course that satisfy the general education (GEC) requirements. Additional information can be found at http://www.charles.college.artsandsciences.upenn.edu/.
   A. GEC category or course level (e.g., Category 2, Breadth, C, Arts and Humanities, etc.)
   B. Learning goals and objectives that pertain to the above course goals
   C. A statement that explains how the course will satisfy the required learning goals and objectives

IV. Explanation of course materials and components for the course goals. Possible activities include lectures, discussion with active participation, preparation of assignments, field trips, special lectures, readings, and exercises. Materials include textbooks, references, and other reference materials. Distance learning also includes the use of Web-based and other instructional aids.

V. Required and optional reading list. List all required and optional readings, and other materials required for the course. Clearly identify any resources and materials that are supplemental or not required. Also include information on where students can obtain those materials.

VI. Grading policy
   A. Components of final grade
   B. Weights of course grades
   C. Relationship of participation and attendance to final grade

VII. Assignment and exam policies. Include information about all homework and other assignments, papers, examinations, grades. (See Rule 3335-6-18)
Academic integrity is essential to maintaining an environment free of academic dishonesty in teaching, research, and other scholarly activities. Thus, the Ohio State University and the Committee on Academic Misconduct (CAM) expect that all students, faculty, and staff will act with integrity in their academic and scholarly endeavors in a manner consistent with the University’s Code of Student Conduct and the syllabus or academic activities.

The Ohio State University’s Code of Student Conduct (Section 2303-23-00) defines academic misconduct as any activity that could be considered the academic integrity of the University, or submit the academic misconduct. Examples of academic misconduct include: cheating, unauthorized collaboration, copying, or soliciting unauthorized assistance during an examination. If you are unsure of whether or not something constitutes academic misconduct, the Office of Student Conduct has published an online guide for academic misconduct.

If you believe that a student has committed academic misconduct in this course, I, as the instructor of this course, am obligated by University Rules to report any suspicion to the Committee on Academic Misconduct (CAM). It is important that you review the Code of Student Conduct (i.e. conduct academic misconduct). The sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the academic integrity or other aspects related to the course, please direct them to:

Office of Student Conduct
The Ohio State University
200 University Hall
Columbus, OH 43210

You can also reach the Office of Student Conduct at 614-292-3307.

Other policies and procedures that are relevant to the course. These may include, but are not limited to, assignments, requirements, reporting on academic dishonesty, and course policies.

Any student who feels they may need an accommodation should contact me privately to discuss their specific needs. Please contact the Office for Disability Services at 614-292-3307 in room.
150 Pomona Hall to coordinate reasonable accommodations for students with documented disabilities.

X. Schedule: At a minimum, the class-by-class schedule must include the following:
   A. Dates with corresponding sequence of class topics, including the preparations that are
      required and suggested
   B. Due dates for assignments
   C. Exam dates (see Rule 3.315(b)(2))
   D. Holiday or other dates when the class will not convene.

XI. University Support Services: Several years ago, the Undergraduate Student Government requested
    that faculty include the phone number for The University Support Services on their syllabi, preferably
    on the first page somewhere and especially for any particular need or individual need.

   University Support Services—352-3232
   Service available after 8 PM

   (Adopted by Council on Academic Affairs on DATE)