1. Attendance:
   Aero – Jen-Ping Chen
   AVN – Not present (Chul Lee)
   BME – Rita Alevriadou
   CHE – Dave Tomasko
   CEGS – (Civil, Environmental, Geomatics) – Chuck Moore
   CSE – Bruce Weide
   ECE – George Valco - Chair
   ENG PHY – Not present (Richard Hughes)
   FAB – Bob Gustafson (for Alfred Soboyejo)
   IWSE –
       ISE – Clark Mount-Campbell
       WLD – Not present (Dave Farson)
   MSE – Kathy Flores
   ME – Marcelo Dapino
   Graduate Student – Hannah Gustafson (not present Harry Pierson)
   Undergraduate Student – (not present Rebecca Murphy and Timothy Schroeder)
   Secretary – Ed McCaul
   Guests – Pam Hussen

2. The Minutes from the 4 February 2008 meeting were approved as written.

3. Rita Alevriadou presented the committee with the Course Proposal Subcommittee’s recommendations. The subcommittee is recommending that the following course requests be approved:
   3.1. New Courses: CSE 786, contingent upon receipt of a concurrence from ACCAD; CSE 769; ECE 769; NE 738; ME 738; ME 787; and ME 687. The floor was opened for discussion.
   3.2. Clark Mount-Campbell stated that ISE would like to review ME 787 and ME 687 as some of their faculty are working in the area of biomechanics. It was agreed that a contingency of concurrence from ISE would be added to those two courses.
   3.3. There being no further discussion Rita Alevriadou made a motion that the course requests with the noted contingencies be approved. Chuck Moore seconded the motion. A vote was taken: 11 approved, 0 opposed, and 0 abstentions. The motion passed.

4. Jen-Ping Chen informed the committee that Subcommittee A has had its concerns about the movement of the credit hours in Civil’s Curriculum Proposal resolved. Consequently, the subcommittee is recommending that the proposal be approved. It was noted that at the committee’s last meeting the courses requests that are part of the proposal were recommended to be approved by the Course Proposal Subcommittee. The floor was opened for discussion. There being no discussion
Jen-Ping Chen made a motion that Civil Engineering’s Curriculum Proposal be approved. Bruce Weide seconded the motion. A vote was taken: 11 approved, 0 opposed, and 0 abstentions. The motion passed and the proposal will be forwarded to the Office of Academic Affairs.

5. Clark Mount-Campbell informed the committee that Subcommittee B has reviewed the proposed Minor in Computational Science and is prepared to report to the committee (report attached).

5.1. The subcommittee likes the idea of the minor but found some problems with it that need to be addressed such as internal consistency; can CSE majors take the minor; listing the correct course numbers; required category of simulation and modeling is ill defined; making linear algebra and differential equations a required prerequisite; a better explanation of why courses with a long string of prerequisites are included; eliminating 100 level courses from the minor; making sure that listed courses are going to be taught; and a better explanation of the capstone/research/internship experience. Before the subcommittee can make a recommendation on the minor to the committee the problems addressed in its report need to be addressed to include the following items that need to be added to the proposal:

5.1.1. a table summarizing and giving more detail for the courses listed.
5.1.2. an appendix with letters from the course offering units indicating that they agree with their course being included in the minor.
5.1.3. that the capstone/research/internship requirement be thought through more thoroughly and that this portion of the proposal be expanded to clarify the requirements and procedures.

5.2. Bruce Weide addressed the committee on the minor.

5.2.1. The minor proposal was initiated by Professor P. (Saday) Sadayappan of CSE based on consultation with Steve Gordon, Director of the Ralph Regula School of Computational Science (RRSCS), which is a virtual school housed at the Ohio Supercomputer Center, and faculty in most Engineering and MAPS departments. It has to be approved by both the offering university and RRSCS, and some of the curiosities in the proposal are the result of the latter requirement.

5.2.2. While CSE would like their majors to be able to take the minor they did not think that they could. The committee secretary stated that there is no university rule on this and that if CSE thought the minor was unique enough they could allow their students to take it but it needs to be stated in the proposal. The College of Engineering Undergraduate Minor Program does state that minor programs are taken by students majoring in programs other than the Offering Program, but this committee can modify this policy.

5.2.3. Even though some courses have long prerequisite chains, the variety of courses in the different categories were included to enable students in a number of majors to take the minor.

5.2.4. The capstone experience is not designed to be a capstone experience in the ABET “capstone design” sense but RRSCS wanted the word used in the minor. The idea is for students to work on a project and write a report on it.
5.2.5. The problem with the simulation and modeling category is that CSE could not find an entry level course here at OSU for that category and CSE does not want to create such a course. The suggestion was made that ISE 521 may work. The comment was made that ISE 521 has a number of prerequisites to include ISE 500 which is only open to ISE majors.

5.3. The subcommittee’s requests, comments, and suggestions will be sent to the proposers with the request that they respond to each of the items raised by the subcommittee with either modifications of the proposal or a separate discussion of the item. The chair asked Bruce Weide if he would convey this to P. (Saday) Sadayappan and Bruce replied that he would.

6. Another question that came up during Subcommittee B’s review of the proposed Minor in Computational Science is the need to clarify the college’s rule for minors that state “Courses taken on a Pass/Non-Pass bases may not be applied to the minor.” (report is attached). The floor was opened for discussion.

6.1. There was general agreement that the college rules need to be clarified. Clark Mount-Campbell made a motion that the college rules governing minors be changed to read:

6.1.1. A Minor must meet the following criteria:
   6.1.1.1. Minors require a minimum of 20 credit hours and may not exceed a maximum of 30 hours.
   6.1.1.2. 100 level courses may not count as credit toward a minor.
   6.1.1.3. Letter graded courses taken on a pass/non-pass bases may not be applied to the minor.
   6.1.1.4. Courses graded S/U may count for no more than 25% of the credit hours in the minor.

6.2. Kathy Flores seconded the motion. A vote was taken: 11 approved, 0 opposed, and 0 abstentions. The motion passed.

7. Clark Mount-Campbell informed the committee that he is still working with Judith McDonald on the Transfer Credit Across the College policy.

8. Bob Gustafson informed the committee that Engineering 181 and 183 are planned to be part of the two technological literacy minors currently being developed. Bob wanted to find out if the committee would be willing to allow these two 100 level course to be part of a minor even though the college policy forbids it. Bob feels that they should be as he feels that the policy is directed at 100 level GEC courses that do not have any prerequisites. The committee seem positively disposed to the idea.

9. Bob present the proposed Policy on Graduation with Honors in Engineering (GHIE) for Undergraduates (corrected version is attached). The GHIE was developed by the Honors Committee for the purpose of allowing students to have Honors in Engineering on their diploma and transcript. The floor was opened for discussion

9.1. A question was asked as to the makeup of the Honors Committee. The response was that the committee has a similar makeup as CCAA.
9.2. A question was asked as to why a student had to have completed 40 credit hours at OSU to get the designation when by the time a student graduates they would have more than that number. The response was that the 40 hours is in the policy for transfer students.

9.3. Two typographic errors were found in the document. (The attached document has been corrected.)

9.4. There being no further discussion Bob Gustafson made a motion that the policy be approved by CCAA and place in the CCAA Handbook. Chuck Moore seconded the motion. A vote was taken: 9 approved, 0 opposed, and 0 abstentions. The motion passed.

9.5. It was decided that any changes to the policy would need to be approved by CCAA. However, the Honors Committee would be responsible for implementing it.

10. George Valco presented a draft of a letter for Computing Platform Neutrality that will be sent to Michael Veres, Interim Chief Information Officer (attached). This letter was created based on the committee’s decision at its last meeting to send a letter to OIT asking that, based on the diversity of hardware and software used on campus, any future software systems bought by the university be platform neutral. There being no suggested changes George stated that he would send the letter to Michael Veres.

11. The meeting was adjourned at 1:45 PM.

C: College Faculty
CCAA File
Committee B Report on the Minor Program in Computational Science Proposal

Committee B is favorably disposed towards a minor of this type. However, we note some rough spots in the proposal that need to be addressed.

1. There are problems with internal consistency. For example, on page 2 it is stated that 5 courses are required when in fact 6 are required. Also item 1 Simulation on page 3 states “Such an introductory course in simulation and modeling is currently not offered at OSU.” Yet table 2 on page 5 lists 7 such courses. In another example, item 4 Optimization on page 3 states, “A course is also being considered for development by the IWSE department at OSU.” Again table 3 lists ISE 522, which is NOT a domain specific course in linear programming, and it has existed for several years.

2. A student cannot take a minor in their major field. The proposal does not state if CSE considers the minor unique enough that their majors will be allowed to take it.

3. MSE 695 does not exist as a course a student can take but MSE 695.01, 695.02, 695.03 do exist. Which of these courses does the minor require or does it require any one of the three? The same question applies to ME 565.

4. The required category of simulation and modeling is ill defined. Modeling is required to do simulation, but one does not necessarily do simulation with a model. Furthermore, different disciplines call different things simulation. There are continuous simulations (both deterministic and stochastic), discrete event simulations (both deterministic and stochastic), Monte Carlo simulations, finite element simulations, some might simulate with weather models, or with population models, etc.

5. Linear algebra and differential equations are listed as elective courses of which only one is required. Such courses are also prerequisites for some of the required courses in the other categories. It seems inconceivable that one could know much about computational science without background in both linear algebra and differential equations. Perhaps these should be minor program prerequisites. This would not be a burden for engineering majors but might be for others.

6. Most courses listed have prerequisite strings of which many include “not open to non majors” or some equivalent, which are intended primarily for enrollment management. While these generally can be waived, they may discourage students from even considering the course, and if the major enrollments are high others will probably be closed out. Our assessment is that engineering students will not have difficulty finding courses in the minor that they can take without needing to take prerequisites that they do not already have, but students outside of engineering (with the possible exception of Physics, Chemistry, and Math) might have difficulty. Examples of these strings are as follows: ISE 521 has prerequisites of ISE 500; Stat 427 and 428, or equiv. But, ISE 500 is only open to ISE majors. The prerequisite for Stat 427 of Math 153 or 254 is fine as Math 153 is shown as a prerequisite for the minor. Another example in the same category is ME 785 which has a prerequisite of ME 784. Other examples include
CE406 which requires CE405 that is open to majors only; and ME 564 which requires ME 510 and 563 and ME 510 requires ME 501, and 504 or CE 413, etc.

7. One course listed under programming and algorithms is EG 167. 100 level courses cannot be used in a minor according to the Undergraduate Minor Program Policy in the COE.

8. Several courses listed in table 2 have not been taught in a long time and will probably not be taught in the near future, and one course we found is not listed in the course bulletin. For example, CBE790 and CBE 781 are not taught, and Chem 644 is not listed.

9. The capstone/research/internship courses include CE 630, and CSE 699, which are S/U graded courses. Under one interpretation of the COE Undergraduate Minor Program Policy, S/U graded courses cannot be used as part of a minor. The policy states that minor courses cannot be taken pass/non-pass, which is not technically the same as S/U. However, we think that if a minor program explicitly includes a research or project oriented experience then an S/U independent study course option should be allowed as that is a common way of awarding credit for such experiences.

10. The capstone/research/internship experience does not appear to be well thought out. The important characteristic is that the experience must involve a significant computational component. At the same time two or three departmental capstone courses or research courses are listed implying that taking one of these courses will satisfy the requirement. However, the project done in these courses may or may not involve a significant computational component. How will the requirement be policed administratively? Why are these capstone courses listed and not others? We think that simply taking the course should not satisfy the capstone/research/internship requirement. Instead the requirement should be satisfied by the work product of the experience in the form of a report, thesis, or paper that clearly contains the requisite computational component. For the students’ protection there should be a pre-approval process so that they will not do a project and then find it unacceptable. It should also be made clear that if a project is done as a team, then each member of the team who is taking this minor will receive credit for the final work product.

Analysis and Recommendations

We recommend that the CCAA request that each of the 10 items listed above be addressed by either changes in the document or a separate discussion of the issue. In addition we have the following specific recommendations for revising the proposal.

1. Add a table summarizing and giving more detail for the courses listed in table 2. In column 1 list the course number. In column 2 list the course title. In column 3 list the prerequisites. Possible a fourth column could be added in which the “hard” prerequisites are listed (i.e. ones that cannot be waived for a student taking this minor).

2. Add an appendix with letters from the course offering units indicating that they agree with their course being included in the minor. When the letters are solicited the units should be asked specifically to address, for each course, how frequently they intend to offer the course in the future, and to identify the “hard” prerequisites (these can then be summarized in the table suggested in 1.)
3. We think that the capstone/research/internship requirement is an excellent idea, but we suggest that it be thought through more thoroughly and that that portion of the proposal be expanded to clarify the requirements and procedures.
Motion to Amend the Undergraduate Minor Program Policy in the College of Engineering

Background:
Item 1.3 under the section titled “Minor Programs in The College of Engineering” states “Courses taken on a Pass/Non-Pass basis may not be applied to the minor.” This wording is subject to two different interpretations. One interpretation is that no course offered for S/U credit only can be applied towards a minor. The other interpretation is that a student may not count a course towards a minor if that course was taken pass/non-pass even though the courses was offered for a grade. According to university rule 3335-8-21 on marks, PA/NP and S/U are not the same thing but are close.

(K) "PA" - pass, "NP" - non-pass
(1) The grade pass "PA" means the student has satisfied the stated objectives of the course, and the grade non-pass "NP" is the equivalent of the grade "E."
(2) These marks may be used at the option of undergraduate or continuing education students only, subject to the following conditions:
   (a) This grading pattern may be chosen for a maximum of thirty credit hours, provided the student has an accumulated point-hour ratio of 2.0 or higher.
   (b) Among these thirty credit hours, an undergraduate student may elect this option for courses in fulfillment of the curricular requirements of rule 3335-8-06 of the Administrative Code.
   (c) An undergraduate student may elect this option for courses that are not required or designated as required electives in the curriculum leading to the degree for which the student is a candidate.
   (d) Hours graded pass "PA" count toward the minimal number of hours required for a degree. Pass or non-pass marks ("PA," "NP") are not computed in the point-hour average of the student.
   (e) Before five p.m. of the third Friday of a quarter or the second Friday of a term, a student must have declared intention to take a course on this basis by filing the appropriate form with the dean or director of the student’s enrollment unit. A student may not change to or from this option after five p.m. of the third Friday of a quarter or the second Friday of a term.
(M) "S" - satisfactory, "U" - unsatisfactory
(1) The mark "S" may be used to record either satisfactory progress in or completion of work, provided that the course has been approved for this mark by the dean of the college offering the course, and in the case of courses carrying graduate credit, by the dean of the graduate school. It shall be used as an alternative to "U" or "I" in all individual studies courses whatever their number. "S" credit shall be counted as hours only, and shall not be considered in determining a student's point-hour ratio under rule 3335-8-26 of the Administrative Code.
(2) The mark "U" shall be used for unsatisfactory work in courses in which a student would be entitled to the mark of "S" if the student's work had been satisfactory. No credit shall be given for work marked "U." This mark shall not be considered in
determining a student’s point-hour ratio under rule 3335-8-26 of the Administrative Code.

Rationale for proposed change:
The policy should avoid being open to multiple interpretations and should clearly state the intent of CCAA with respect to minor programs. Secondly, there is an emphasis in the College of Engineering Performance Plan to involve greater numbers of undergraduates in research. Presently, only honors thesis research (through H783) may be taken for a letter grade which leaves out a large portion of the undergraduate population. Few will argue the lack of bona fide educational experience for the student arising from research participation and there should be a mechanism for research to count towards a minor program.

Specific change:
Item 1.3 under the section titled “Minor Programs in The College of Engineering” should be changed to state the intentional interpretation of CCAA (to be determined) and shall explicitly allow for the inclusion of undergraduate research credit to apply towards a minor.

Suggested language for a new item 1.4 Undergraduate research credit obtained through any of the following courses may be applied towards a minor: X93, 699, H783.
POLICY ON GRADUATION WITH HONORS IN ENGINEERING (GHIE) FOR UNDERGRADUATES
APPROVED BY CCAA ?????

Students wishing to Graduate with Honors in Engineering must have been enrolled in the GHIE program and have completed their GHIE Plan.

To enroll in the GHIE program, students must:

1. Have successfully completed 40 credits of courses taken at Ohio State for a letter grade, at least 10 of which are designated as Honors courses or equivalent courses (upper division courses not required for the student’s major or courses taken for graduate credit),
2. Have a Cumulative Point-Hour Ratio (CPHR) of at least 3.40, and
3. Have a Faculty Mentor who agrees to help the student toward achieving the goals established in the application to the GHIE program.
4. Submit an application no later than the time of application for graduation (three quarters prior to graduation). Applicants must use the GHIE form available on the college website (http://www.eng.ohio-state.edu/). When approved at the college level, indicated by signature of the college Honors coordinator, the application becomes the student’s GHIE Plan.

Eligibility for Continuance: To continue to participate in the GHIE program, students must maintain Honors status in the College of Engineering and must make satisfactory progress toward completion of the curriculum and activities established in their plan.

Revisions: Approved plans may be revised, as long as they continue to meet the stated requirements. Students must request official approval for significant revisions with a letter of explanation for the need for revision from their advising team. All approved revisions must be filed with the College of Engineering Honors Office.

Completion: The quarter before graduation, students are to indicate that they will complete the requirements for Graduation with Honors in Engineering by following the directions in the completion section of your approved GHIE Plan and submitting it to their department Honors coordinator for concurrence. The college Honors advisor in collaboration with the faculty mentor and the academic advisor will validate that the student will successfully complete the program by the time you graduate. They will so indicate by signing the completion section of the GHIE Plan. The document with all required signatures shall be submitted to the College Honors Office no later than noon on the first Friday of the quarter in which the student intends to graduate.

Upon successful completion of the approved criteria of the GHIE program, the student will be a candidate for a Bachelor of Science degree in her/his field with Honors in Engineering.

Date: February 25, 2008
To: Michael M. Veres, Interim Chief Information Officer

From: George J. Valco, Chair of the College Committee on Academic Affairs, College of Engineering

Subject: Computing platform neutrality

At its meeting of February 4, 2008 the College Committee on Academic Affairs (CCAA) unanimously approved a resolution that it should be a critical requirement, for all potential vendors and/or developers of administrative systems that faculty and staff are expected to use, that such systems should respect the diversity of hardware and software used on campus, and in particular that such systems should be effectively browser-neutral.

This issue was recently brought to the forefront in the college of Engineering with problems encountered with the recent switch to the Electronic Course Approval (ECA) system. Specifically, some faculty who use browsers other than Internet Explorer on Windows platforms will not be able to do their jobs since ECA system requires the use of Internet Explorer. Although this specific example prompted the resolution, the principle is general and broader, as stated in the first paragraph above.

CCAA recommends that you share our position with whoever is responsible for making decisions about purchase and/or development of OSU administrative computer systems.