CCGB Meeting Agenda, December 12, 2008

1. Approval of minutes
2. Undergraduate announcements
3. Further discussion of Independent Major (Gries)
4. Possible motion from Math and Science Subcommittee on request by CS to allow Math 4710 as a substitute for Physics 214 (Pollack)
5. Discussion of the impact of possible changes to undergraduate population of the engineering college (Bland)

CCGB Minutes, December 5, 2008

Ex-Officio: D. Bell, K. Dimiduk, B. East, L. Schneider, F. Shumway
Other: B. Howland, M. Hutson, C. Pakkala, N. Peterson, M. Thompson

Approval of Minutes: The minutes of the 10/24/08 CCGB Meeting were approved as written. The minutes of the 11/14/08 CCGB Meeting were approved with a slight modification.

Undergraduate Announcements: F. Shumway said that it was the last day of classes, so everyone in Advising was busy. D. Bell stated that the grade rosters will be available on the Faculty Center site on Monday, 12/8. R. Bland said that he heard that Engineering would be significantly increasing the # of undergrads in the college. B. East responded that the University has talked about increasing university-wide student enrollment. R. Bland replied that Engineering would need to assess the impact of increasing enrollments on their undergraduate programs. B. East stated that we seem to be seeing a significant increase in students in distress this fall, and asked that faculty pay special attention to their students. CAPS has seen an almost 15-20% increase in visits.

Vote on Recommending a Change in the GPA Requirement for the Dean’s List: M. Thompson stated that there are core problems with grade inflation, and this proposed change does not address it. There would need to be a fixed fraction to address it. E. Fisher said that a fixed fraction was viewed as undesirable because it would mean direct competition between students. D. Gries said that changing the required GPA to 3.5 would bring our requirement closer to that of the other colleges.

A. Ruina said that the whole system is grading on a curve. Students are competing with each other and we should admit to the existence of a competition. M. Thompson suggested that 1/3 of the students should be on the dean’s list each semester. D. Gries said that we realize that there is always a competition, but putting 1/3 of our students on the Dean’s List would be a mistake. This would be totally different from how the rest of the university does it. A straw vote indicated that the fixed fraction approach was opposed by most of the CCGB members present.

Motion: The CCGB recommends to the Dean of Engineering that the grade point average for being on the Dean’s List each semester be raised from 3.4 to 3.5. This change is requested to keep the fraction of students on the Dean’s List, which has risen as high as 43%, to roughly the level that CALS and A&S aim for: up to 33% of the students. Vote: 7 in favor, 1 against, 1 abstention.

D. Gries will notify the Dean of the recommendation; if the Dean agrees, the change will be effective Fall 2009.

Charge to Chem/Bio Subcommittee: E. Fisher stated that Chem 2090 was created when Chem 211 was eliminated from the curriculum. The chemistry labs couldn’t accommodate more people in Chem 207, and the Chemistry Department felt that engineers had a competitive edge over the chemistry students -- hence the plan was to create an equivalent of Chem 207, just for engineers. Chem 209 was first offered in fall 2007, and over the summer of 2008 Jim Engstrom and other members of the Chem/Bio Liaison Subcommittee met with instructors of Chem 209 and discussed how the course was going. The discussion didn’t lead to any strong conclusions regarding changes to the course. Complaints from students have been heard this semester, some more about the instructor than the course. D. Gries met with the Assoc. Dir. of Chemistry. K. Dimiduk has worked with the instructor, and things are improving. K. Dimiduk said that the mean of Prelim 2 was 70, and the material seems to be better understood.
E. Fisher said that she wants the CCGB to charge the Chem/Bio Liaison Subcommittee to investigate the situation and make suggestions. A. Ruina stated that it seems that the main feedback loop is CBE because Chem 209 mostly serves CBE students. E. Fisher agreed that CBE representation is important, and that is why Jim Engstrom is on this committee. S. Baker and T. Fine, along with Chemistry instructors, are also on the committee. E. Fisher wishes to add K. Dimiduk to the committee, to take the place of T. Fine.

L. Pollack stated that the issue of thermodynamics and physics is getting more complicated. She doesn’t want thermodynamics put into chemistry because there are too many issues in physics.

M. Walter stated that the deans could sort this out. Chem 2070 is a good course, but Chem 2090 has real problems. He understands that sometimes a course is offered where some students have a priority in classes, but we shouldn’t exclude students. D. Gries said that Chem 2090 is supposed to be a better course for engineering students. F. Shumway said that the Chemistry Department is firm on not allowing our engineering students to take Chem 2070. A. Ruina said that this exclusion seems to be a problem. There should be no barrier; this is counter to university philosophy. R. Bland said that it is unseemly that Chemistry created a separate track for engineers and staffed it with an incapable teacher. K. Dimiduk said that the course is improving. A. Ruina stated that guiding students into a course is different than allowing them to take a course. M. Thompson asked how much power the CCGB has to execute any changes. It seems that the CCGB can only recommend things. How a course is organized and run is up to the professor in charge. Scheduling issues (e.g. recitations vs. lecture time) are the decision of the department not the instructor. D. Gries stated that the Chem/Bio Liaison Subcommittee and he can work on this issue.

**Charge:** The CCGB charges the Chem/Bio Liaison Subcommittee to make recommendations regarding Chem 2090, especially on possible changes to the current strategy of replacing recitation sections with an extra lecture period. Short-term recommendations (which may be implemented in Spring 2009) should be made by email or phone to Associate Dean David Gries, by December 18. Recommendations relevant to the Fall 2009 and later offerings of Chem 209 should be made to the CCGB in January or February 2009.

**Vote on charge:** Passed unanimously, with 9 in favor. K. Dimiduk moved to be on committee.

**Vote on proposal from CS to allow substitution of ECE 3100 for ENGRD 2700:** E. Fisher stated that there are no clear criteria for approving or disapproving the courses. Discussion about whether substitutions are bad for the engineering core curriculum was held last time. The Math and Science Committee has not yet acted on the request for a physics substitution. An ENGRD motion seems less controversial. R. Bland said that ECE 3100 is a good substitute as a basic ENGRD course. E. Fisher said that the substitution rule should be clarified. She takes the motion to mean that a student could choose to take two ENGRD courses, or else could substitute ECE 3100 for one of these courses if s/he wished. M. Thompson said that other 300-level courses are ENGRD course substitutions. If a course works as an ENGRD, any student could take it.

A. Ruina stated that he believes that substitutions should be college-wide even if made at the request of one department. If one course is adequate for CEE majors, it should be suitable for MSE or another department also. If we broaden the distribution, it should be college-wide to make rules easier. S. Marschner said that approving ENGRDs globally might be problematic. It could introduce discontinuity. B. East said that we have approved ENGRDs before by department. A. Ruina said that the current process makes ENGRDs questionable. We could say that we’ve had a bad process in the past and are fixing it. E. Fisher stated that this is a different situation from math and physics because we don’t lose anything by increasing our ENGRD options. A. Ruina said that he doesn’t want this to set a precedent.

D. Gries said that there are two issues: 1) whether the substitution is appropriate according to our rules, 2) whether we should handle the process differently. M. Thompson suggested that maybe we should eliminate ENGRDs; they are currently used by departments as another course in their curriculum. E. Fisher said that this motion would allow the course as a choice; they are not requiring the course. S. Marschner added that as we make changes to our curriculum, we can allow students more choices. S. Marschner indicated that CS is instituting a probability and statistics requirement, and that this substitution would give students more ways to satisfy that new requirement.

R. Bland stated that the CCGB has voted in the past to allow departments to require ENGRDs as part of their core curriculum. M. Thompson responded that requiring ENGRDs changes the whole purpose of the ENGRD courses. R. Bland said that the motion has the Subcommittee’s unanimous endorsement and the course is better for CS stu-
dents. E. Fisher promised to follow up with ECE as to whether they wish to propose ECE 3100 as an ENGRD course.

**Motion:** That the CCGB allow Computer Science Majors to take ECE 3100, Introduction to probability and random signals, to fulfill an ENGRD requirement in the probability and statistics distribution category (i.e. in place of ENGRD 2700). **Vote:** 6 in favor, 2 against. Motion passes.

**Charge to Math/Science Committee to articulate criteria for approving substitutions for core math or science courses:** E. Fisher stated that although the college has given the CCGB the authority to approve substitutions for math and physics courses, there does not appear to be any guidance for making decisions on the substitution requests. Rather than approve things that seem vaguely reasonable, the Math and Science Committee should come up with a set of criteria that can be discussed by the CCGB as a whole. L. Pollack is to come back to the CCGB in February with something for the CCGB to discuss as a group. There is a list of questions for the committee.

D. Gries said that he has already received a request by CS to have specific courses approved, and this is separate from a long discussion of this charge. M. Thompson said that almost every other school ends up with math and science electives that are extremely broad. R. Bland stated that he is adamantly opposed that a substitution for one major should be available for all majors. A substitution for an ORIE course might be antithetical to what one in MSE would be. The term broad should mean broad based on a certain set of principles.

Ruina stated that if we say a course in general meets the CCGB sense of being broad enough, it should be broad enough. If a department has a specific need, it should be filled from existing courses. Narrowing a requirement is up to a department to do. We should vote on broadening the needs of the students. M. Thompson said that the core curriculum should be a set of courses that we feel every student should take, regardless of their major. There should be no substitutions for a core course. Breadth is not necessarily the purpose of the core math and science curriculum. A. Ruina said that he agrees that the core curriculum has been eroded. It shouldn’t be department-specific.

E. Fisher said that departments need to restrict a set of choices. B. East said that we have a huge number of students who change their minds about their majors after they come here. E. Fisher said that we want to continue to allow students to change their minds, and that any substitutions should not limit student choices early in their time at Cornell.

**Charge:** The CCGB charges the Math and Science Committee to draft a set of criteria or principles to be used when approving or disapproving requests from departments for substitutions for Physics 214, Math 293, or Math 294. These criteria should be brought to the CCGB for discussion no later than February 2009.

Pollack said that the Math and Science Committee will work on this as soon as possible.

B. East stated that BEE has changed the GPA of their affiliation requirement to 2.5 and wondered if this would be applied to all current students. D. Gries replied that it would be effective for students who entered in fall 08.

The meeting adjourned at 9:02 a.m.