CCGB Meeting Agenda, October 17, 2008

1. Approval of minutes
2. Undergraduate announcements
3. Preliminary discussion of the admission of non-affiliated transfer students (Gries)
4. Further discussion of motions on number of credits required for math courses (Gries)

CCGB Minutes, September 26, 2008


Ex-Officio: D. Bell, K. Dimiduk, B. East, L. Schneider, M. Spencer

Other: C. Pakkala, N. Peterson

Approval of Minutes: The minutes of the 9/19/08 CCGB Meeting were approved as written.

Undergraduate Announcements: M. Spencer stated that the weekend of 10/18-20 is hosting weekend, which will bring 65 good underrepresented minority students to Cornell Engineering. The Women in Engineering day will be held on 10/19. R. Bland asked if there had been a thinning of freshmen over the summer. M. Spencer replied that we lost a few, but we still have about 760 students, including 34% female and about 10% URMs. This was the target. The overall number of students should be 710, so the class size is a bit large. M. Louge said that the Provost or President reported that URMs were low; he is glad this not the case in Engineering. B. East said that the Provost and President were talking about African Americans. The University is not happy that the number went down.

Distribution of college rules for majors on substitutions allowed for math and science courses:
D. Gries said that we can approve substitutions for math and physics courses. E. Fisher said that departments generally believe that a major can’t substitute biology for a physics course. D. Gries said that departments could substitute an advanced course in biology. E. Fisher asked whether a major could approve a student petition for a course on the college substitutions list, but not among those normally allowed for that particular major. D. Gries replied that the major would have to come to the CCGB for courses not on the list. In a post-meeting clarification, D. Gries indicated that a major is allowed to approve individual students’ petitions to substitute a course that is on the list but is not normally allowed for that major. E. Fisher said that MAE has approved this type of thing before, due to a particular goal the student had, for example pre-med. L. Pollock said that it has been her experience that when a requirement is waived for one student, the floodgates open. She tries to take a hard line on this now.

M. Louge said that over the past 8-10 years Engineering has eroded the math requirement and allowed departments to move toward a specialized curriculum. He has observed that CCGB’s focus is moving from the common curriculum to a specialized curriculum. D. Gries said that fields and requirements are changing. M. Louge asked whether we want students to have a common curriculum. We need to decide how we define what it means to be an engineer in general and what it means to have a common curriculum. E. Fisher said that this topic should be addressed with the task force. R. Bland asked whether “common” means particular courses or suites of courses that satisfy the same principles. M. Louge said that we have moved away from common principles. A. Ruina said that this was a major topic in the report of the Baker Committee. We need the words to correspond with reality. CCGB should address the topic directly and the words should indicate what we’re doing. S. Baker said that his committee looked at this issue. They agreed with the principles of having a common curriculum and tried to find a place to push back borders, but they did not find them. Making physics 214 replaceable is possible for all majors.
Further discussion of revised proposal for revised requirements on number of credits in math courses, for use in decisions on transfer credit awards: D. Gries said that the math requirement now forces students to take 16 credits of math, or 15 if the last course is only 3 credits. Transfer courses -- both for current Cornell students and for students transferring into Cornell -- are the issue. Sometimes we require a student to take an additional course to make up 1 credit. He asked whether this is a knowledge-skill requirement and whether it shouldn’t matter about the credits or whether it is simply a credit requirement. We don’t want students to get away with only 12 credits. A. Center said that it seems that a knowledge-skill requirement is most reasonable. Credits are unique to the institution. If a student takes a 3-credit course elsewhere in chemistry and it is equivalent to a 4-credit course here, we don’t make them take another course. D. Gries said that if a 3-credit course is transferred in, they get 3 credits. If they got 5 credits elsewhere, they only get credit for the equivalent course here, i.e. a 4-credit course.

A. Ruina said that there is no correlation between course credits and knowledge at another university. Transfer students want to get away with as much as they can; most need more math. Advisors can get away with making students take courses. B. East asked how we know that the students need more math. S. Baker said that the reports are anecdotal, and he wondered how often the credit issue occurs. D. Bell said that it happens with seniors, 4 or 5 times per semester. S. Baker said that he looks at credits for transfer students; most places require 3 calculus courses; our 2 on average are more rigorous than their 3. He likes the credit requirement because it allows him to require the transfer students to take existing math courses at Cornell. He agrees with the principle that credits don’t match the content, but it isn’t always obvious that a syllabus shows the appropriate level of a class.

M. Spencer said that it is common that a student at another university has two math classes that match our first math class. A lot of other classes don’t include partial differential equations (Math 293). We should let departments figure out what to do with this information.

M. Louge said that he gives students with AP credit a placement test. Students should take a placement test to demonstrate knowledge. We admit transfer students and let them bring in credit for math courses. It would not require much effort to test a few students, and it would allow them to take the right course. B. East asked that the Math Department would need to buy into this. L. Pollock said that there are placement exams given for Math 1910 and Math 1920. A placement test would be more of an issue with Math 2930 and 2940.

A. Center said that if we are worried about unprepared students, we shouldn’t have them take an advanced math course. We are asking them to re-take something. S. Baker said that he tells students that their course is not adequate in credits and this gets them to take another course.

K. Dimiduk asked if it would be possible to take a section of Math 2930 and use it for transfer students for review, with a focus more on partials in that section. A. Ruina said that students frequently attend different lectures, so that wouldn’t work. E. Fisher added that we can’t really tailor things to transfer students, but a 1-credit course might be beneficial.

L. Pollock expressed her concern that having them take Math 2930 would wreak havoc with their junior year, and she wouldn’t admit students if they hadn’t already taken that. S. Marschner suggested that we look at the average grade of students in Math 2930 and see how they’ve done. R. Bland said that the same rule should apply to a summer student or student who did a course on the web.

D. Gries said that a course needs to be approved by the Math Department before it is taken. R. Bland said that Math 2940 is important and a number of students fail to get a C- in the course. A. Ruina suggested that we move this decision into majors, who can then have a placement test if they want. They can do whatever they want with the affiliation rules.

A. Center moved to table the issue pending a report of the scope of the issue with which we’re dealing. We need to know the number of people involved and the issue to solve. We need to know the number of
transfer students per year that we have and how many of those actually need another math course. D. Gries said that F. Shumway felt this was a recurring issue for Advising. L. Pollock said that when students arrive, we fill out forms with the total number of credits accepted, and the students need to look at that so they know and it isn’t an issue later. S. Baker said that advisors need to look at transcripts a semester or two ahead to stave off problems. L. Pollock said that retaking Math 2930 is good for the students.

AEP doesn’t accept transfer students. B. East said that there will be more pressure for us to take transfer students because there are attrition and tuition issues. S. Baker said that he accepts transfer students and agrees that if there are any doubts about their knowledge equivalent to Math 2930, he requires them to take it. He wants them to take Math 2930 if he has any doubt of their ability. M. Walter said that BEE has required students to take a course in the summer if they looked weak in math. They made it a requisite for admission into the major.

E. Fisher agreed to table the discussion on this topic.

**Discussion of a proposal to change the criterion for dean’s list from GPA of at least 3.4 to GPA of at least 3.5:** D. Gries asked if it would be reasonable for students to have a 3.5 in order to be on the Dean’s List. M. Louge said that raising the GPA requirement would put more pressure on the students. We have enough things in the curriculum that put pressure on our students.

A. Ruina said that he used to have high standards, but after being on sabbatical at MIT he feels that long-term success is based on self-esteem. He also thinks that grade inflation is good. He is against awards altogether. If we have them, we could raise self esteem by lowering the GPA requirement.

N. Peterson stated that she has met with thousands of students; their course loads have increased. If we increase the GPA requirement, we put more stress on the students. D. Bell said that students care about graduation honors. Cum laude is 3.5; raising the GPA would make it consistent with that.

L. Pollock asked what happens with the Dean’s List. B. East replied that students put it on their resume. Rumor has it that our curriculum is tougher than other schools, so being on the Dean’s List is important. If people read the folders of students that we admit, our opinions would change about what grades they should receive; they’re incredible.

R. Bland said that in his experience only about 60% of students go to class, and very few of those that don’t go get good grades. L. Schneider said that the Engineering Diversity Programs Office recognizes students on the Dean’s List, which is a nice thing.

S. Baker said that free awards are meaningless; performance is the only thing that matters. Cornell is viewed as powerful due to its tough image. Grades should be given based on performance. If the Dean’s List should mean something, we should raise the GPA requirement.

A. Ruina suggested that the cum laude requirement also be addressed. D. Gries responded that it would be harder to change. A. Center said that he wants to know what percentage of the students on the Dean’s List are freshmen, sophomores, etc.

**Discussion of possibility of admitting transfer students prior to affiliation:** D. Gries stated that transfers need to be admitted into a major. It would be better to have a different process so majors don’t have to be burdened with students transferring in as sophomores. M. Louge said that MAE is already the largest major in the college; to admit more would be a problem. There is no incentive for them to admit transfer students. B. East said that enrollment plays a role in what colleges receive in their budget. The idea of admitting unaffiliated transfer students is not motivated by the desire to get departments to take more transfer students. Guaranteed admissions are a problem. L. Pollock said that the issue is that often AEP is asked to affiliate transfer students under conditions she wouldn’t affiliate a Cornell student.
The meeting adjourned at 9:00 a.m.