Minutes of the Special Faculty Senate Meeting Devoted to General Education, 25 Sept. 2007

The Faculty Senate met on Tuesday, September 25, 2007, at 5:00 p.m. in Wachovia Auditorium. This was the second special meeting of the term dedicated to the General Education Proposals formulated by the Ad Hoc Committee on General Education.

Speaker Joe Kelly called the meeting to order and announced that the minutes of the previous meeting, which had recently been circulated electronically, would be approved at the next meeting (Oct. 2) to give Senators ample time to review them.

The Speaker then asked for and received unanimous consent on two small matters in wording in sections of the proposal on Gen Ed covered in the last meeting: these were to delete “Read and” in Goal II.1 of #3 of the “Defining Characteristics” as had been done in #3 of the “Approval Criteria,” and to eliminate the split infinitive in #3 of the “Defining Characteristics” (i.e., change “to clearly present” to “to present clearly”).

Next the Speaker asked that the Senate consider using an electronic system to cast votes in order to speed up the voting process. To institute such a system would require official approval by the Senate, and to approve the system for immediate use would require that the motion on the floor (to approve pages 4 to 18 of the Gen-Ed Proposal) be tabled so that a motion on electronic voting could be made.

Parliamentarian Brain McGee provided a brief demonstration of how the system works, and asked the Senate to cast a test vote. He noted that the bar graph that displays the vote tallies will not be shown while voting is occurring, but only after votes have been cast. The Speaker will declare when voting is closed, though Senators can move to hold the voting period open longer. The Speaker then thanked Reid Wiseman for suggesting the electronic voting idea and the Physics and Astronomy Department (especially Jon Hakkila and Sorinel Oprisan) for providing the equipment.

Mr. Wiseman (guest) then asked if it was possible to use an electronic clicker to cast two votes by clicking it twice. The Parliamentarian said “no.” Phil Dustan (Biology) asked if the system could be use for determining a quorum, and the Parliamentarian said it could. Mr. Dustan next asked if there was a way of verifying if one’s clicker was working and if the votes that the Senators had just cast all registered. The Speaker said that the only way to verify this would be to ask for a show of hands and then match that total with the number of electronic votes shown on the display.

Tom Heeney (Communication) then made the following motion: “Mr. Speaker, I move to lay the motion concerning the General Education Curriculum on the table.” The motion was seconded and approved. Mr. Heeney next made the following motion:

Mr. Speaker, I move that electronic voting be permitted in meetings of the College of Charleston Faculty Senate when suitable voting equipment can be made available to Senators and, further, that the presiding officer be given the authority to order
electronic voting in all cases when the presiding officer is in doubt on a voice vote or a vote by show of hands.

The motion was seconded and discussion ensued. Rohn England (Mathematics) noticed that no mention of the display bar or graph of the voting was in the motion; the Speaker asked for and received unanimous consent to include in the motion the use of the display bar, specifying that when the Senate votes, it be shown after all votes have been cast.

Mr. Wilder (Philosophy), while not objecting to the electronic voting method, remarked that something important would be lost if it were implemented. Senators won’t be able to see how their colleagues vote. The public nature of casting a vote is significant. It ensures a measure of publicity and integrity in the behavior of Senators. Jack Parson (Political Science) asked whether the Senate could ask for public votes. Speaker Kelly said that he would be happy to require a show of hands or a roll call, if requested by a Senator. Can we do both, asked Mr. Dustan? The Speaker said that it would not be a problem and that with the Senate’s unanimous consent both could be done. Mr. England then wondered whether doing both wouldn’t defeat the original purpose of using the electronic voting system, which was to save time. The Speaker responded that he wouldn’t count hands. The show of hands would allow Senators to know how their colleagues voted. The actual counting of votes would be done quickly by the electronic voting system. Larry Krasnoff (Philosophy) observed that perhaps in the future the electronic voting system could be set up in way that would not only display the aggregate vote of the Senate, but also show and record how each Senator voted.

At this point a vote on the motion to adopt an electronic voting system was taken and the motion passed.

Mr. Heeney then moved to take the main motion (regarding the Gen-Ed proposal) off the table. After being seconded, the motion passed.

Discussion resumed of Richard Nunan’s motion on p. 6 of the Gen-Ed proposal pending from the previous meeting. Before reminding Senators of the particulars of his motion, Mr. Nunan (at large) commented on the nature of the discussion in the previous Senate meeting. He said that a number of comments toward the end of the meeting didn’t speak to the proposed amendment, and that others he perceived as ad hominem attacks directed at him. He thought it was important to explain how all this came about. Mr. Nunan noted that starting with the debate on the difference between the terms “to master” and “to understand,” there seemed to be a good deal of skepticism about the seriousness of the Philosophy Department’s first proposed amendment. The department’s next proposed amendment went “down in flames” because it was perceived as just “special pleading” on behalf of the department. Comments on that proposed amendment had the effect of creating the unfortunate impression that the Philosophy Department was engaging in special pleading in proposing its various amendments. Mr. Nunan wished to point out that the logical fallacy known as “special pleading”—which is pleading for a cause for which one has no justification, and which merely constitutes an attempt to carve out an exception from a general rule—is not the same as pleading a case for oneself for which there is justification. Mr. Nunan also thought that there had been some problems in the development of the Gen-Ed proposals in that some
powerful constituencies had gotten the ear of the Gen-Ed Committee. The result was that the Committee brought out its proposals without a broader discussion that fully involved others. He said that only now are we seeing the proposals, that in earlier discussions the Mathematics Department didn’t seem to be listening to the Philosophy Department, nor was the Gen-Ed Committee really listening to the Philosophy Department. The same thing was going on with respect to the science proposals. For example, the white paper on the math and science proposals did not circulate outside of School of Science and Mathematics (SSM). It was a product of that school and of no one else.

Norine Noonan (Dean of SSM) responded that the science proposal was in the Gen-Ed Proposals a year ago, “since day one” of the Gen-Ed review process. It was there for all to see. As for the white paper, she said that SSM wasn’t asked to provide such a document for the Senate or the faculty.

Mr. Nunan in turn responded that the fact that the white paper was made available to the Gen-Ed Committee does not mitigate the fact that we haven’t had a discussion about it. As for the rationale for his amendment, he said that it spoke to the issue of breadth. Comprehensiveness, he argued, was neither an appropriate nor a realistic goal for Gen Ed. We want students to be exposed to plenty of content, but comprehensiveness is not really achievable. Ten years ago, during the prior Gen-Ed debate, the argument was made that to cover all the bases for biology students would need to take three biology courses. That argument was unconvincing then and arguments about the need for comprehensive coverage of the sciences are unconvincing now. Moreover, the three sciences courses may not be able to cover all areas of the goal, and all the combinatorial logistics haven’t been thought through.

Todd McNerney (at large) moved to extend debate by 15 minutes. The motion received a second and passed.

Calvin Blackwell (Economics) agreed with Mr. Nunan that the “Defining Characteristics” for the science goal are overly broad and too content driven. He thought that “Defining Characteristics” #4 and #5 were fine, but that the other three were too specific. More flexibility, he stressed, was needed.

Jason Overby (Biochemistry/Chemistry) then said than in science courses, “we don’t sit around and talk about our feelings.” In science courses, it’s all about the content, about learning, building upon, and synthesizing specific blocks of knowledge. He stressed that students must have an understanding of content to achieve scientific literacy, and that the nature of science is content driven. Jon Hakkila (guest) noted that since the last Gen-Ed meeting, new scientific ideas have already emerged. Science moves extremely fast and we need to teach our students to keep up. They need to have an overarching understanding of science, and have some understanding of key scientific developments (from knowledge of dark matter to that of the human genome project). Our current structure is outdated: students get a good understanding of techniques, but don’t acquire a deep or broad enough knowledge of science. While we can’t teach all areas of science to students, we can cover a minimum, which experts must determine. Though the science faculty tried to stay within the two-course
requirement, it was too constrictive. The defining characteristics that have been laid out in the proposal are the minimum. Mr. Dustan spoke on “Defining Characteristic” #3 concerning the biosphere, remarking that the biosphere is a crucial area of scientific concern and goes to our understanding of global warming, hurricanes, and floods. We need to understand it and to teach our students about it, about how science works, and about the difference between “knowledge based on facts and knowledge based on beliefs.”

Mr. Krasnoff had no objection to such views, but noted that Mr. Blackwell, say, could make the same argument about his discipline economics, that each discipline could make a case that students need to know how it works. Perhaps it is more useful, he suggested, to see how we compare to other institutions with respect to the science requirement. He thought that the current requirement of two courses and two labs was already a little high.

Gerry Boetje (Computer Science) responded that science is today “under siege,” that there is a coordinated attempt to suppress it, and that this attack upon it makes it different from other disciplines. He pointed out by way of example that Fox News isn’t attacking economics, but that science is under attack. He stressed that students need to understand how science functions and interacts as a whole. Such knowledge is needed to defend science today.

Doryjane Birrer (English) said that literature, the creative arts, and some other disciplines are also under attack, and that more reasons and evidence are needed to explain why science should be singled out as exceptional. Some reasons, she added, aren’t that compelling. For instance, the fact-vs.-belief distinction is important for other disciplines as well as science. We can all come up, she continued, with our ideal number of classes that we feel students should take in our respective disciplines, but we also all have to compromise.

Mr. Wilder moved that the debate be extended for 15 minutes. After being seconded, the motion passed.

Mr. Hakkila remarked that the sciences are different in the number of hours of labs it requires. He noted, too, that the College is under the average number of credit hours for sciences, and that more credit hours are needed because of the variety of content in the sciences. We are talking, he added, about many disciplines, and students need to know something about them and be able to synthesize knowledge from each.

Mr. McNerney said that he appreciated the spirit of helping students that SSM faculty brought to the Gen-Ed reform project. However, he noted that there are other places in the proposal where credit hours are being added, and was concerned. He wondered specifically about the two-lab requirement and observed that the added course increased the science requirement by 40%. Mr. Overby responded by stating that labs show students how science works; they allow students to experience how science is done as they learn the process of conducting experiments, testing hypotheses, and collecting data. Mr. McNerney observed that many disciplines require “doing” those disciplines and experiencing how they work, and that the extra course is still a big increase.
Mr. Wilder, focusing specifically on part A of Mr. Nunan’s proposed amendment, said that numerous comments speak in favor of the amendment. To satisfy the science goal of the proposal, courses would have to be taught superficially. Narrowing and deepening the focus—rather than seeking comprehensiveness—would reach the goal desired by science faculty.

Darryl Phillips (at large) said that he was in favor of increasing the number of required science credits. After looking at a few of our peer institutions, he saw that an 11-hour science requirement was not unusual. Indeed, it appeared to be mainstream. He was concerned, however, about the desired level of specificity. Mr. Hakkila’s argument about the fast pace of change in science is an argument for less specificity, not more. He asked, too, that if we want greater comprehensiveness (and thus more credit hours) for one part of Gen Ed, then shouldn’t we want it for all? For his part, he would like all students to read the Iliad and the Odyssey and the Aeneid and a number of Shakespeare’s plays, rather than just one or two of those works. He concluded that he thought the content of Mr. Nunan’s amendment was good.

Jaap Hillenius (at large) pointed out that if one looks at the language of the “Defining Characteristics,” they are not that specific. Most introductory science courses will cover #4 and #5 in the second group (under “Knowledge of the natural world”) and at least one other characteristic. The “Defining Characteristics” are, he stressed, very general.

Meg Cormack (at large) stated that she thinks students should know all areas listed in the “Defining Characteristics.” Mr. Wiseman said that students are already privileged, and that it’s no great burden to require them to take another three credit hours in science. Mr. Dustan stressed that students need to know why the earth is reaching its limits, and that they must learn about the nature of the physical world. Peter Calcagno (Economics) said that while everyone seems to agree learning about science is important, the issue is depth vs. breadth. Is it wrong, he asked, if a student takes three biology classes and focuses intensely on one science rather than two or three? The important thing is that the student is learning a lot about science.

At this point Jack parsons moved that the debate be extended 15 minutes. After receiving a second, the motion passed.

In response to Mr. Calcagno, a Senator responded that breadth was necessary, and that students needed to know how disciplines overlap and interact with each other. Such knowledge is crucial for understanding how science functions in the modern world.

Gary Harrison (Mathematics) agreed with much that had been said about the importance of science, and thought that that it was more important to keep characteristic #4 than to keep #2 and #3. Ms. Noonan observed that there is always a trade off in the choice between breadth and depth. The way she and the Gen-Ed Committee have tried to deal with this is with the five “Defining Characteristics,” which are all fairly broad, but all sufficiently important that they need to be covered in some way. Two courses could not adequately cover them all. The lab issue is an administrative convenience, but labs are integrated with lectures to a maximum extent. She noted, too, that #4 and #5 of the “Defining Characteristics” are crucial.
Cramming students with “factoids” is ineffective, but showing how science works as a process of inquiry is crucial. Posing hypotheses, testing them, changing one’s mind based on evidence—these are all central to the process of scientific inquiry. The five areas of knowledge, she concluded, “can’t be parsed and separated.” To do so would not move students forward in science education.

Mr. Blackwell moved to call the question. His motion was seconded and passed.

Mr. Nunan’s motion to modify the “Defining Characteristics” of Goal II.1/III.1 failed.

Mr. Nunan had announced the proposal of two other amendments, but said that he was withdrawing the first one. He then proposed to eliminate Requirement #3, which states that the “first course taken in the sequence be taken with an approved lab.” His rationale was that the requirement is unenforceable, and that we shouldn’t be in the business of forcing students to wait to start their science courses till they’ve had a lab. He also noted that the requirement would exclude interdisciplinary courses, which are generally taught by folks outside SSM.

Mr. McNerney asked why the requirement was unenforceable. We have other requirements in place that are enforced. What makes this one unenforceable? Mr. Young asked why Requirement #3 was there in the first place. George Pothering (guest and Chair of the Gen-Ed Committee) said that Requirement #3 was there to address items #4 and #5 in the “Defining Characteristics,” which are about the nature of scientific inquiry. Lab work, he continued, is where scientific processes take place, and students need an appreciation of those processes. Mr. Hakkila said that students need to “get their hands dirty” in the lab early on, and then later they will learn about the synergistic dynamic among the different areas of science.

Mark Long (Political Science) asked whether, under Requirement #3, a student who took a science course without a lab would have to take three more science courses. Mr. Pothering said that that was not the intent of the requirement. Mr. Nunan noted that the purpose of his amendment is to root the problem identified in Mr. Long’s question. Mr. Heeney wondered about transfer credits and how well the new science requirements will deal with that issue.

Mr. Young asked what was meant by “The first course taken in the sequence.” Why couldn’t students take three science courses at once? He didn’t see a clear rationale for the language of sequencing in the requirement. Ms. Noonan said the reason is precisely the one mentioned earlier about how labs give students hands-on experience in understanding the process of science. The lab requirement puts the process of scientific inquiry first.

With time running out for debate, Mr. Parson moved to extend the debate by 15 minutes. After being seconded, the motion passed.

Mr. Wiseman remarked that there was nothing “sacrosanct” about lab experience. Einstein, he observed, was “a terrible lab man.” Margaret Hagood (Elementary & Early Childhood Education) re-posed the question asked earlier by Mr. Long, since no answer by those against the amendment was provided: would a student who took a science course without a lab have to take three more science courses? George Hopkins (History) suggested that the issue could
be solved by inserting the word “normally” in Requirement #3: “The first course taken in the sequence must normally be taken with an approved lab.”

At this point, Mr. Blackwell remarked that the Requirements of Goal II.1/III.1 seem to imply that what students learn in High School counts for nothing, to which several senators answered (without being recognized by the Speaker) that it didn’t. Mr. Blackwell asked why students have to take a lab course in this institution, if they’ve already had one in High School.

Mr. Wilder also raised a question about the phrase “taken in the sequence.” Nothing in the document, he pointed out, speaks to a sequence. There is thus no need to put the lab first if there is no clear sequence. Pete Calcagno (Economics) noted that labs are currently prerequisites for certain courses. Therefore the language in Requirement #3 is not really necessary. Mr. Dustan reiterated that that the reason the labs are meant to be taken first is so that students are exposed from the start to the tools of science.

After a little more discussion, the Senate voted on Mr. Nunan’s motion to strike Requirement #3. The proposed amendment passed.

Mr. Blackwell next proposed his own amendment. He first prefaced his proposal by stressing the importance of science, noting that he agrees with earlier comments made by various Senators that Americans don’t know enough science. But the Gen-Ed curriculum, he continued, has to do a lot of things. If you add more course requirements in one area, you have to think about what you are taking out of another area. If you learn more about science, you learn less about something else. What is the trade off? What are the costs of adding another science-course requirement? Mr. Blackwell then identified three costs. The first cost is that we reduce the potential number of minors. A second cost is that students are provided less opportunity to pursue their own goals. We need, he said, to leave some room for students to pursue their personal aims. (He gave an example of one of his advisees seeking to go to law school, who could prepare effectively for the LSAT by taking a philosophy course. But taking such electives might be harder if Gen-Ed requirements are increased.) A third cost is that we limit students’ choice and sovereignty. Adding more required courses says to students that the courses they wish to take aren’t the right ones, and that only we know which are right. Mr. Blackwell then moved that Requirement #1 be changed, so that students are required to take two, not three, courses. The motion was seconded.

Mr. Hakkila responded by saying that having students minor in something is not the goal of the College; it’s to make sure that students are broadly educated. Further, if Gen Ed—making sure that students take different kinds of courses covering different areas of knowledge—constitutes a kind of disrespect toward students, then why are we concerned about Gen Ed at all? Mr. Wiseman added that if we are going to talk about costs, we must also talk about benefits.

At this point a motion was made, seconded, and passed to extend debate by fifteen minutes.
Mr. Overby said that though he is against the proposed amendment, he agreed with much of what Mr. Blackwell said, and pointed out that currently Chemistry and Biochemistry majors must take a minimum of 129 credit hours to graduate. He added that he hoped Mr. Blackwell’s concerns come up when other sections of the Gen-Ed proposal are discussed.

One Senator then asked what makes science so different that students have to take labs in it, but not in other disciplines. Ms. Noonan responded that those in the sciences would be delighted if other disciplines required students to take labs. The goal with labs, she reminded, is to introduce students to the process of scientific inquiry. She added that efforts were made to reduce the number of required courses, but that it was not possible to do that and reach the stated objectives. The Gen-Ed proposal, she reminded everyone, is goal-based, and if the amendment passes, the objectives in the proposal could not be met.

Mr. Calcagno warned about credit-hour creep. If the Senate thinks adding three hours of science credit hours is important, it will have to think carefully about adding more hours elsewhere. Mr. McNerney was also concerned about the growing number of credit hours, and pointed out that on p. 26 of the Gen-Ed proposal the credit hours are undercounted. Under Foreign Language, 0-3 hours are listed, but it should be 0-12. He noted, too, that the proposal adds six hours in the “intercultural perspective” category, three in the category of “interdisciplinary/creative thinking,” three in science, and three in the First Year Experience, totaling 15 extra hours.

Mr. Young stated that people seem to be reading things into the proposal that he doesn’t see. He said it’s not certain that there is an extra three-hour science course because it’s not clear how many credit hours the third course must be or that science departments will teach it. He said, too, that we are expecting students to do a lot of double counting, and that many courses could meet goals that are not in their discipline. Therefore he thought that three-course requirement was fine.

Mr. Hakkila said that the schools of the College were asked to identify learning goals, and that you have to take each proposal on its own merits, and then look at the whole entity.

Scott Peeples (English) then asked what courses might be offered that non-science majors could take. Ms. Noonan replied by reading a list of courses, which included the Natural History of South Carolina, Biodiversity, Scientific Influence on Theology, the Politics of Water, the Physics of Sound and Music, Physics and Film, and Intelligent Life in the Universe. These are three-credit courses, she added, and lab based.

Mr. Krasnoff said he wished to make two points. First, referring back to Mr. Blackwell’s remarks prefacing his proposed amendment, he thought that it was the responsible thing to do to take up the issue of costs, and that we need to think about how an extra science course will affect others. Second, he reported that he looked at elite institutions and found that a number of them require fewer than three science courses. These institutions include Harvard, Carlton, Williams, Swarthmore, and William and Mary.
Jack parson moved that debate be extended 15 minutes. After receiving a second, the motion passed.

Mr. Nunan said that he felt ambivalent about Mr. Blackwell’s amendment. He thinks it is valuable that students learn more science, but was worried about Mr. Blackwell’s concern that we are creating something that is too cumbersome for students. He noted, too, that his earlier proposed amendments were designed to allow for flexibility so that the possibility of what Paul Young suggested (i.e., that departments outside the sciences would teach some of the courses that would count for the third course) could actually happen.

Maureen Hays (Sociology), responding to Mr. Krasnoff’s point about how some elite institutions require fewer science courses, pointed out that “we are not an elite institution.” She also reminded the Senate that Darryl Phillips had looked at a number of our peer institutions and found the proposed 11-hour science requirement to be in line with their science requirements. She added that we are a public liberal arts college and thus have a mission to provide a liberal arts education to the public of South Carolina.

It was now 7 PM, the end of the scheduled meeting time, and the meeting was adjourned. Discussion of Mr. Blackwell’s amendment is set to resume at the next meeting.

Respectfully submitted,

Terence Bowers,
Faculty Secretary