

**Committee on Curriculum**  
**December 1, 2016**  
**217 Bray Hall, 11:00 am**  
**Meeting Minutes**

**Voting members present:** Liu, Teece, Reuter, Bevilacqua (for Wagner), Cohen, Stavenhagen, Shannon (for Wheeler)

**Guests and others present:** Brown, C'Dealva-Lenik, Fortier, Kelleher, Minard, Neumann, Newman, B., Newman, D., Sanford, Spuches,

**Unable to attend:** Amidon, Rutkowski, Tao, Verostek

- 1) **Call to Order.** The meeting was called to order at 11:04.
- 2) **Approval of Minutes from November 3, 2016 meeting.** The minutes of the November 3<sup>rd</sup> meeting were approved unanimously.
- 3) **Announcements**
  - i) **Proposals posted for CoC and faculty review:**  
Advanced Certificate in Radiation Curing Chemistry (revision of Advanced Certificate in Radiation Curing)
  - ii) **Proposals submitted for CoC completeness review:**  
Minor in Natural Resources Policy (new)  
Graduate Program in Sustainable Energy Management (new)
  - iii) **Recent Administrative Approvals (with approval date).** There have been no recent administrative approvals.
- 4) **Updates from the Dean.** Dean Shannon presented the status of curriculum proposals that were approved by Academic Governance during the past year. The PBE/Chemistry proposal for a Renewable Materials Science curriculum is under review by SUNY. Some minor adjustments have been made as requested by SUNY, and it is expected that ESF will hear soon as to the acceptability of the program. With regard to the newly-proposed Biochemistry undergraduate curriculum, Shannon is waiting for the chemistry department to send him some final paperwork relating to the external review before he is able to submit the proposal to SUNY. Teece offered that he would look into the issue.
- 5) **Old Business:**
  - i) **Guidance document for differentiation between course levels. (Wagner, Cohen, Stavenhagen, Liu)** There was no progress to report on this issue.
- 6) **New Business:**
  - i) **Proposals for action:**  
**SRE 337 Energy Resource Assessment - revision.** Brown, the proposer, explained that the class originally was designed as a field course (SRE 417) so that students could visit renewable energy sites and facilities. This class was taken by students at the end of their junior year, and built on knowledge from a survey class taken during the sophomore year. This new course presents the information in a restructured format, so that students are exposed to the survey information during the semester and then spend the last week of the class in the field visiting facilities. This gets rid of the year-long gap between the survey of pathways and the field experience. Teece, on behalf of Abrams, the co-instructor of SRE 335 Renewable Energy, asked for clarification that SRE 335 was now not to be a required class for Sustainable Energy Management students. There was concern that significant knowledge taught in SRE 335 would no longer be taught in the new required class.

Kelleher explained that he originally developed SRE 335 (then ESC 335) as a survey course of renewable energy technology. The course has evolved over the years into a course much more focused on solar energy and the science behind it. SRE 337 is an effort to provide more of a management course across all the energy technologies. FNRM has opted to substitute SRE 337 in as the required course, and add a field component. SRE 335 will remain in the catalog as a course for those more interested in solar technology, and with a more scientific focus. Teece asked if the name of SRE 335 was going to be changed. Kelleher noted that the present instructor could change the name of the course if he desired, although he (Kelleher) thought that the present name was satisfactory. David Newman suggested that SRE 335 will probably need to be revised at some point. Teece thought that there might have been a communication gap in the process of dropping SRE 335 as a requirement for Sustainable Energy Management students and substituting SRE 337, but was assured by David Newman that the department had been in communication with the instructor of SRE 335 regarding this matter. Kelleher noted that SRE 335 will still be a requirement for Environmental Science students who are minoring in renewable energy. Teece asked if SRE 337 would also be open to Environmental Science students, and Brown responded that the only restrictions would be related to class capacity and logistics. Sanford noted that there may be a problem regarding housing if the class extends beyond commencement and students are living in Centennial Hall. Brown noted that most students in the class will be juniors who live off campus. There being no further discussion, the course was approved with no objections.

**SRE 537 Energy Resource Assessment - new .** Teece at this point asked about the Committee's procedures when comments are made on proposals during faculty review time and no response is forthcoming. Shannon responded that if questions are not answered before the Committee meets to discuss the proposal then the issue would be addressed if brought up at the meeting. Kelleher noted that he had had correspondence privately with faculty regarding these SEM proposals, but the substance was not forwarded to the Committee.

Liu explained that SRE 537 is a shared resource course with SRE 337. There were no comments on this proposal and it was approved unanimously.

**FNRM-SEM curriculum - revision.** Bevilacqua, the proposer, explained that the Sustainable Energy Management curriculum is being revised to accommodate the change dictated by making SRE 337 a required course in place of SRE 335. SRE 335 is now a directed elective for some students. Since SRE 417 has now been replaced (and renumbered to SRE 337) there is an addition of one free elective credit to the curriculum. The curriculum revision was approved with no further discussion.

- ii) **Discussion on standards for Advanced Certificates.** Liu started the discussion by noting that SUNY is pushing for more certificates, and he is not clear if there are any standards for certificate programs. Bevilacqua asked where certificates lie in the hierarchy of majors, minors, etc., and Shannon explained that they are seen as less than a full degree, but substantially more than a minor. Certificate approvals must go through SUNY and the New York State Education Department (SED). SED has offered no guidance for, for example, the minimum credit hours required for completion of a Certificate, and some are as few as 2 or 3 credit hours. Generally, most are in the nine to fifteen credit hour range. SUNY has been moving to make Certificates more common at any number of credit hours, as long as they carve out a distinct/discrete area of knowledge that can be delivered with some completeness. Certificates make it possible for students to earn a credential that is complete and that may be paired with other certificates to earn a degree. Liu suggested that the ESF Writing Program would be a good area to develop certificates. Shannon noted that he is more comfortable with Advanced (Graduate) Certificates, but Certificates could certainly be offered at undergraduate level as well. It is possible that many minors could be transformed into Certificates. Spuches explained that Certificates and Advanced Certificates have been around for many years. It is an official document that comes from SUNY, as, for example, a diploma for "Certificate in Advanced Study". There may be credit or non-credit certificates, but the Committee would only be involved in the approval of for-credit certificates. SUNY-wide there

has been a lot of talk about increasing student completions. ESF's driving factor is to serve a population that can obtain a Certificate that has value in the market place. Spuches described a non-thesis masters program in geomatics, comprised of three certificates with three courses each. Students may "stack" the certificates to end up with a master's degree. At ESF we have an Advanced Certificate in Bioprocessing. During the history of offering this certificate, 16-18 students have continued to complete a graduate degree, some at doctorate level. Teece again brought up the point of whether we need local standards for certificates. Spuches asked what aspects of the program should be subject to standards. He pointed out that ESF has set standards for minors because they are local awards. They are neither reviewed nor awarded by SUNY, and merely show as an additional line on the student's diploma. Certificates can be seen as a testing ground for potential majors, as well as giving degree students an extra credential. They can be agile responses to the marketplace. Teece, Liu and Shannon then discussed whether standards were appropriate for a certificate program, with Shannon asserting that, while we may not want to set a minimum credit hour threshold, we may want to state what body of knowledge comprises a certificate. Teece questioned whether the Committee should be involved in the setting of standards for a certificate program. Spuches noted that the one SUNY requirement is that the courses making up a certificate must count toward a major at the college as a required or elective course. If SUNY has already approved both the curriculum and its component courses, then there is no need for additional limitations on certificates. Spuches also pointed out that the development of certificates must emanate from the faculty. Outreach is involved if a credential is non-credit, and Outreach is also involved if the Certificate is developed for online delivery, but generally a Certificate will reside within an academic department. Shannon added that a Certificate has to be approved by Committee and continue through the process of approval by SUNY and SED. Cohen asked about advising for certificates, and was told that each certificate will have a designated faculty advisor. Teece asked about the significance of certificates for financial aid. Spuches responded that certificates need to be comprised of at least 24 credit hours to be TAPP eligible. Teece suggested that the only "standard" that ESF should additionally apply to a certificate is that it follows the correct process for all curricula in that it needs to be approved by Committee on Curriculum, Academic Governance, etc. Shannon agreed that as long as ESF is complying with SUNY and SED there need to be no additional standards. Stavenhagen asked if the proposal form requested a statement of need for a particular certificate and was told that it does. Spuches added that the statement of need for a certificate proposal was a little different from the type of statement of need required of community colleges, BOCES, etc., as they must indicate the presence of an industry partner. C'Dealva-Lenik asked if the Committee would be writing a statement summarizing the discussion to be presented to Academic Governance. Spuches replied that the Committee had addressed the issue of certificate standards and members are now apprised of SUNY and SED requirements and will follow the prescribed process. The SUNY standards are very flexible, and we have the discretion to make decisions locally. Stavenhagen noted that we can develop a certificate and see if it rings true to industry needs. In this way we can test the market. Spuches noted that the current Minor in Environmental Writing and Rhetoric is an example of a minor that could have potential as a certificate. He also noted that there is one Advanced Certificate already in the process of being reviewed by the Committee, and another Advanced Certificate proposal will soon be submitted by the Environmental Studies department.

**iii) Other.** There was no other business.

**The meeting was adjourned at 12:00 pm.**

**The next meeting of the Committee on Curriculum will take place on Thursday, January 12, 2017, from 11:00am until 12:20pm in Bray 324.**