# RE: Problems with AS, Science \& Engineering Technology and Scientific Workplace Preparation, CCC proposals 

Martin A. McClinton [Martin.McClinton@fsw.edu](mailto:Martin.McClinton@fsw.edu)<br>Thu 3/31/2022 4:47 PM<br>To: Sheila Seelau [Sheila.Seelau@fsw.edu](mailto:Sheila.Seelau@fsw.edu);Gerald Anzalone [Gerald.Anzalone@fsw.edu](mailto:Gerald.Anzalone@fsw.edu)<br>Cc: Kelsea Cid [kelsea.cid@fsw.edu](mailto:kelsea.cid@fsw.edu)<br>(1) 3 attachments (6 MB)<br>Common Prerequisites Manual - Biology BS.pdf; Common Prerequisites Manual - e.g. Engineering.pdf; Common Prerequisites Manual- e.g. Environmental.pdf;

Sheila

Probably would be easier if we met, but I know that time is at a premium: I see one change (the lower limit on the AS Program requirements from 18 to 15) that needs to be done and I do like the recommendation to make the Electives based on the Subject codes (AST, BSC, CHM, CGS, ESC, GIS, CLY, HSC, ISC. MAC. MAT, OCB, OCE or PHY).

## AS Comments and questions:

1. Course-to-Framework matrix needs revisions. Please resubmit. Kelsea redid these (sorry, at the time of submission I could not find a format, so I used the one that was submitted). Who uploads those to Curriculog?
2. Removing the Core Program Requirements, Tracks, and requirement statement (select two of three) effectively removes required program courses from the degree. The only required courses for all students are General Education. Removing this program structure makes this less a program than a collection of electives. Students will now choose from a wide range of courses to fulfill 18-36 credits, with only footnoted suggestions for guidance.

I think that when we went through the program way back when, you recommended that we move the required classes into Gen Ed since they were Gen Ed too.
3. Where does the $18-36$ credit range come from? When we added the credits recommended by the 5 footnotes, we got 15-29 credits: Biological Science 28 CR, Environmental (Science) 17 CR, Geotechnology 18 CR , Health Sciences 15 CR , Engineering 29 CR .

The upper limit is 38 so that Gen Ed + AS Program requirements $=64$. The lower limit should be 15 as you point out.
4. In the recommended former tracks, some course lists are incomplete in that prerequisite courses are missing. For instance, Health Sciences requires Microbiology, which has PRQs of [(BSC 1010 and BSC 1010L) or BSC 1085C or BSC 1093C]. BSC 1010, BSC1010L, and BSC 1085C are footnoted to other former tracks, but BSC 1093C is not listed on the catalog page.

BSC1093C and BSC1094C will (if they haven't already) come up for 5 year deletion since we don't offer the classes anymore; at some point the prereqs for MCB2010C should be updated, though some schools in the State offer that course so it doesn't hurt to have it on as a prereq.
5. Recommend adding BSC 1093C and BSC 1094C as options to BSC 1084C and BSC 1085C to avoid credit review issues.

BSC1093C and BSC1094C will (if they haven't already) come up for 5 year deletion since we don't offer the classes anymore - I don't want to have a class advertised that we don't offer
6. Usually, required courses are mapped to FDOE standards. This can be done for the large range of "required" courses from which students now choose, but assessment of whether all Framework standards have been met would have to be done at the individual student level rather than being guaranteed by a set of core requirements. This is inconsistent with all other FSW programs and would be overly burdensome. Consider re-establishing tracks and a core set of program requirements (e.g., select one track).

The tracks were just causing confusion and are difficult to program into our graduation system. Students meet all of the framework outcomes through the course listed in the Gen Ed portion of the program
7. The Electives list is very long and seems somewhat arbitrary. Courses have been moved and added to this list without explanation (justification missing from proposal). Would a list of approved prefixes and course levels be acceptable (e.g., Choose from 1000 and 2000 level courses with these prefixes)? This would maintain a wide range of choices for students and reduce the need for additional Program Change Proposals.

## Good idea! How do we implement?

8. Justifications for some of the changes on the catalog page are incomplete. For instance, how was footnote placement on individual courses determined? Was the Common Prerequisite Manual consulted to create the sets of courses recommended for each career/baccalaureate focus area? Are these focus recommendations part of the Pathways Initiative?

The footnotes are based on the Common Prerequisite Manual or on the requirements to enter into FSW health science programs and align with Pathways. (the Geotech is based on discussion that have been ongoing about developing a Geotech certificate)
9. Missing Justification for where former Program Requirements have been reassigned. For instance, CHM 2045, 2045L, 2046, 2046L were moved to General Education, but BSC 1010 and 1010L were moved to Electives. There is room in GE for the BSC courses. Why are they no longer required?

The BSC classes are not required for state framework whereas the chemistry classes are. A student pursuing engineering would not need biology but may need chemistry.
10. The 3-credit computer course requirement has been deleted from the program with the explanation that this requirement held students back from graduation, and that students will learn computer skills in ENC 1101 and Science lab courses. Is this consistent with other STEM programs? If not, is there a more basic computer skills course that could be required?

The AS framework requires computer skills (it was written at a time when computer were not so ubiquitous in college education). Requiring a basic computer is no longer being required since student are exposed to computer applications in so many parts of their education; basic computer classes are included as elective is students wish to improve their skills
11. Speech is no longer required under the new FSW GE structure. Students in this AS and the related CCC are required to complete SPC 1017 or SPC 2608. Do you want to keep that requirement?

Yes, but may have to reconsider in the future
12. Physics courses under former heading Laboratory Science Options used to be grouped with an OR option: (PHY 2048/L and PHY 2049/L) OR (PHY 2053/L and PHY 2054L). Now the two sets of courses are split up with different footnotes. Why? Are they no longer considered equivalent options?

PHY2053/54 and PHY2048/49 teach the same physics concepts but use different mathematical techniques to arrive at the solution to problems. Student pursuing engineering or physical science programs should take the calculus based physics (PHY4048/49) while those who are going into biological science would often take the trig-based version of the course. I don't actually know if they are considered
equivalent in our system (they are not at the state level since they have different course numbers!). I don't see that there would be an issue if a student actually took all 20 credits of physics - they would have meet the framework as well as if they took 10 credits of physics and other science classes in the elective list. I wouldn't recommend it, but I don't see that it would occur very often.

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## From: Sheila Seelau

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Subject: Problems with AS, Science \& Engineering Technology and Scientific Workplace Preparation, CCC proposals
Importance: High

All,
Bad news.
After spending many hours reviewing these proposals and trying to understand the changes, Kelsea and I still have many questions, especially on the AS degree program reconfiguration. Some of our concerns are summarized below, with recommendations for tomorrow's meeting.
I apologize for the late notice on this. Something had to be last on our list of reviews, and these proposals are it. Unfortunately, despite previous efforts and emails, additional changes must be made before CC can bring this to a vote to "approve with MINOR modifications."

Briefly, we believe that the structural changes to this program create more issues than they solve. I have copied the main list of questions and comments for the AS proposal below. We believe this program and the suggested changes need a great deal more thought and research. In its current state, I would reject this proposal back to the department.

We respectfully suggest that for tomorrow's meeting, the proposed AS changes be limited to the state mandates for General Education.

To do this, we suggest creating a simplified version of the catalog page showing only tracked changes in the General Education section. Please review the questions and comments below before applying specific changes to the GE section. The GEAC restructuring of GE requirements for the AA may affect your decisions. For instance, SPC courses are no longer required (\#11 below). Although this need not affect the AS, it may be relevant. Please send catalog page with only GE modifications by reply email today.

## CCC:

We've edited the structure of catalog page according to the provost's guidance and reworked the proposal to CC standards. However, the Justification for changes is inadequate. Please send us a paragraph justifying all changes proposed on this catalog page to append to the proposal. We will ask you to read this justification into the meeting minutes tomorrow.

## Frameworks \& Course maps:

The Course-to-Framework mapping matrices for both the CCC and AS are frankly, a mess. The CC template was not used. Courses are mapped that are not part of the program. Courses that are part of the program are missing from the map. Kelsea has drafted two new templates, transferring mapped courses and inferring matches where they were missing. Given the state of the submitted matrices, she has made her best guesses, but this is the department's province. These must be carefully reviewed, completed, and resubmitted. This does not need to be done by tomorrow, but we are collecting all Frameworks and matrices with these proposals for archiving, so it should be done within the next week.

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If you'd like to meet, I will not be available to Zoom until late afternoon. My priority today is getting the second agenda out.

Respectfully and regretfully,
Sheila Seelau

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