College of Engineering Committee on Academic Affairs  
Meeting Minutes 10 November 2014

Attendance:
Aero – Carl Hartsfield  
AVN – Not present (Seth Young)
BME – Mark Ruegsegger - Chair
CHE – Jeff Chalmers
CIV – Frank Croft
CSE – Paul Sivilotti (for Ken Supowit)
ECE – George Valco
ENG PHY – Robert Perry
ENV – John Lenhart
FAB – Ann Christy
ISE – Carolyn Sommerich (ASAP Rep)
MSE – Sheikh Akbar
ME – Rob Siston
WLD – Not present (Dave Farson)
Graduate Student – Not present (Beenish Saba, Ankita Majumder) 
Undergraduate Student – Kareem Rasul & Amber Harriger

Non Voting:
Associate Dean for Undergraduate Education – Dave Tomasko
KSA – Maria Conroy
Committee Secretary – Ed McCaul
Advisor – Nikki Strader

Guests – None

1. The minutes from the 13 October 2014 meeting were approved as written.

2. George Valco informed the committee that Subcommittee A had not yet received a revised version of the Surveying and Mapping Minor and has not received proposals for any of the other minors.

3. Rob Siston presented the recommendation from Subcommittee B on the university’s proposed second major policy.
3.1. Rob Siston made a motion that the college send a message to Randy Smith stating that the College of Engineering was willing to allow our students to receive second majors from other units in the university, but was not willing, due to accreditation issues, to donate to students from outside of Engineering a second major in Engineering. George Valco seconded the motion. The floor was opened for discussion. (The proposal from Randy Smith is attached.)
3.1.1. The committee was informed that the subcommittee considered three options:
    3.1.1.1. Does the college want to “donate” majors that could be added to other degrees?
3.1.1.2. Does the college want to “receive” second majors, which its students would complete in other colleges, and permit the additional majors to be added to the college’s degree?

3.1.1.3. Does the college want to do both of the above?

3.1.2. After a discussion Subcommittee B decided to recommend to CCAA is that we chose option 2 (receive degrees from other colleges to be “added onto” the BS engineering degree) and decline option 1 (not donate engineering degrees to be added onto BS degrees from other colleges).

3.1.3. The question was asked as to whether the second major would be subject to the rules of that major. The response was yes.

3.1.4. The question was asked as to whether students would receive two diplomas or one diploma showing both majors. The response was that is a detail CAA will need to work out.

3.1.5. The comment was made that this is not a second degree rather a second major. The difference between Engineering and Arts & Science is that they offer multiple majors under one degree while we offer individual degrees.

3.1.6. There being no further discussion a vote was taken: 13 approved, 0 opposed, and 0 abstentions. The motion passed. The committee secretary was asked to inform Randy Smith of the college’s decision.

4. Jeff Chalmers informed the committee that Chemical Engineering has a student who previously graduated from OSU and is in the process of completing a second degree in Chemical Engineering. The problem is that his cumulative GPA is not very high as his GPA from the courses he took for his first degree is not good. Consequently, he is not being considered for job interviews by a number of companies due to his low GPA. Is this right? The response was that his cumulative GPA is a summation of all of the courses he took here at OSU and since he already has a degree he cannot use the fresh start rule.

5. Carolyn Sommerich presented the recommendations from the Course Proposal Subcommittee.

5.1. Carolyn Sommerich made a motion that the course change requests for ENGR 1180, Spatial Visualization Practice and Development; ME 4684, Product Design Capstone I; and ME 4685, Product Design Capstone II, be approved. Frank Croft seconded the motion. The floor was opened for discussion.

5.1.1. The committee was informed that the only change to ENGR 1180 was to change it from ungraded to graded so that students will take the course more seriously and at the request of the Dental School as they require some of their pre-dental students to take it.

5.1.2. The question was asked whether ungraded for ENGR 1180 means that it is currently graded Satisfactory or Unsatisfactory. The response was yes.

5.1.3. The committee was informed that ME wants to change the number of 5684 to 4684 along with changing the prerequisites so that only undergraduates can take the course. Along with that change ME wants to change 5685 to 4685 as it is the second course in the capstone sequence.
5.1.4. The question was asked as to why the change from a 5000 level to a 4000 level course for the two ME courses. The response was that ME does not want graduate students taking the courses.

5.1.5. There being no further discussion a vote was taken: 13 approved, 0 opposed, and 0 abstentions. The motion passed.

5.2. Carolyn Sommerich made a motion that the course withdrawal request for ENGR 4510, Fundamentals of Engineering (FE) Examination Review, be approved. Frank Croft seconded the motion. The floor was opened for discussion.

5.2.1. The committee was informed that the course needs to be withdrawn as the FE exam has changed to one where students only take a discipline specific exam and the course was designed for a general exam. Units will need to create their own review course if they feel there is a need for one.

5.2.2. There being no further discussion a vote was taken: 13 approved, 0 opposed, and 0 abstentions. The motion passed.

6. Dave Tomasko updated the committee on various academic issues.

6.1. Dave recently attended a meeting with Dolan Evanovich, during that meeting Dolan was hoping that we would be willing to take more incoming freshmen. However, Dolan was informed that we were staying at 1650 new incoming freshmen. This autumn we had 1597 new freshmen with an additional 100 at the regional campuses, but this number does not include the new students in Knowlton. While the quality of our students increased last year, the number of students in underrepresented groups decreased. The university knows that in order for us to increase the number of incoming freshmen we need additional faculty and additional faculty means additional space. For this to be done the university will need to invest a lot of additional money in Engineering. However, it will be difficult for the university to get additional money for this from the state.

6.1.1. The question was asked as to whether the 1597 includes all of the students in CSE as about 1/3 of the CSE students are in Arts and Science. The response was yes that all of the students in the CSE department were included as the students in Arts & Science significantly increase CSE’s teaching load.

6.2. The academic profile of our incoming class has increased tremendously since 2001. Our most recent incoming class had a middle 50% ACT composite score of 28-32 and a middle 50% ACT math score of 29-33. We are currently in a fight for students with schools that in the past we were not such as Purdue, Michigan, Pitt, and Georgia Tech. One item that potential students rate us low in is interaction with faculty. So, if any of you are asked to participate in a recruiting event please do so.

6.2.1. The comment was made that in some programs our faculty to student ratio is getting too low with there being too many students in many of our major courses.

6.2.2. The comment was made that a lot of students are coming to OSU as we have offered them better scholarships than other universities. We may not be able to sustain this for much longer as colleges get taxed by the university for each of our students that get offered a university level scholarship.

6.3. The committee was informed that credit by examination and how much academic credit veterans should receive for courses they took in the military are still being debated at the state level.
6.4. The committee was informed that Dave Tomasko and Mark Ruegsegger are working on a set of questions that will be sent to everyone concerning new degrees and how to best expand offerings of engineering courses at the regional campuses.

6.4.1. The question was asked as to whether increasing the number of engineering students at the regionals will increase the number of rank three and four students here at Columbus. The response was yes it will, but students who go to the regionals still need to meet the same quality standards as students at Columbus. In addition, students from the regionals must meet the same entry requirements for the program they want to attend.

6.5. The committee was informed that about 17-18% of our incoming freshmen do not go on to a second year in engineering. However, this loss is made up by external transfers and students coming from the regionals.

6.6. The question was asked as to how tenured track faculty at the regionals are treated. The response was that they are considered part of the faculty in the appropriate department here in Columbus.

6.7. The comment was made that Physics has tenure track faculty at some of the regional campuses. Robert Perry was asked if he would give a presentation to the committee at its next meeting on how Physics handles their faculty at the regionals. Robert agreed to do so. Paul Sivilotti also agreed to check CSE’s P&T document and find out how CSE handles their regional faculty.

6.8. The comment was made that tenure track faculty at a regional campuses can count against a program’s graduate program, in terms of overall statistics, if they are not advising graduate students.

7. The meeting was adjourned at 2:18.
A Proposal to Allow Double Majors across College Boundaries

Introduction
As Ohio State continues to improve the profile of the students we admit, the number of students interested in pursuing more than one major has noticeably increased. Indeed, the University’s many and varied programs are a significant appeal in our ability to recruit competitive undergraduates. While the demand for second majors has increased, we have not changed the way we require students to access this wealth of programs. Once they get here, academically ambitious students trying to complete two majors often experience the structure of the University as a bureaucratic impediment to accomplishing their goals.

Academic programs are associated with colleges, each of which offers its own degrees. Majors exist, conceptually, as a component of a degree offered by the college where the major resides. A student cannot complete a college’s degree without completing some related, appropriate major; conversely, however, under current practice, a student cannot complete one of the college’s majors without completing its degree. As a result, students who aim to complete majors offered by separate colleges must generally complete two degrees, and completing a second degree often adds hours and degree requirements that extend well beyond the requirements for the major.

Proposal
This proposal recommends that colleges and the Council on Academic Affairs consider whether it is practicable to provide more flexibility for students to complete double majors across the university, by permitting a student (when doing so is academically feasible) to complete a major separately from the degree to which it would normally belong, as a component the student can add to the degree he or she is primarily pursuing. In completing the second major, students would need to complete not only the requirements of the major itself, but any prerequisite requirements, as well as any accreditation requirements built in somewhere in the curriculum other than the major.

It is unlikely that colleges will be inclined or permitted to allow students to designate an accredited program as a component of another, unaccredited degree. Although that college might decide it cannot “donate” second majors, it could elect (or not) to “receive” them, by permitting students to add them to the degree. Students who undertake such a program and fail to complete the professional degree would need to complete the degree requirements for what had been the second major if that becomes the only major.

Two Majors and Overlap with General Education
Currently, most students pursuing two majors are doing so in the Arts and Sciences. There, students are allowed, where possible, and with some limitations, to overlap courses on either major with course work required for the General Education program. Distribution limits on the number of courses from the area of the major that can be used on a related area of General Education are expanded, and courses can also be overlapped (when that is possible and with limitations) between majors. These efficiencies make it possible for students to complete two majors with a minimum of curricular complexity and often without taking an exceptional number of hours. In cases where this is not so, the exceptions have more to do with the size and disparity of the majors than with curricular obstacles. The Arts and Sciences rules governing two majors are included as an addendum, as points of reference and as a basis for further discussion and general consideration.

This proposal recommends that some latitude be extended to all students completing two majors. One goal of the General Education program is to guarantee breadth in an undergraduate education. Students completing a second major have exceeded this expectation in those areas of the curriculum relevant to either major, and it seems reasonable to allow course work taken for multiple majors to count toward the General Education requirements when the course work is appropriate. Although such efficiencies may limit, in some curricular areas, the broad sampling of disciplines for which General Education aims, there is an inherent breadth to the coverage within an undergraduate major, and any loss in overall breadth will be offset by the gains in strength and coherence that a second major will provide to a student’s program.

Conclusion
Adopting the policies in this proposal would not weaken undergraduate programs. Indeed, to the extent that it enabled more students with multiple academic interests and goals to complete a second major, it would broaden and strengthen those students’ programs.
Colleges would, of course, need to determine the way in which students completing their programs could feasibly participate in this wider access, and policies would need to be set and broadly communicated, to govern those decisions and advise students. At the most general level, each college would need to determine the following:

1. Does the college want to “donate” majors that could be added to other degrees? This will not be a feasible option, given accreditation issues, in some professional programs.

2. Does the college want to “receive” second majors, which its students would complete in other colleges, and permit the additional majors to be added to the college’s degree?

3. Does the college want to do both of the above?

Addendum: College of the Arts and Sciences Requirements for Double Majors (on one degree)

- The student must meet the requirements for each major as set by the department offering the major.
- Each major must contain a minimum of 18 semester hours not contained in the other. (As a practical consideration, particularly with regard to academic advising, it will be helpful to identify what constitutes the “major” in extended programs that are essentially degree programs, rather than simply a major.)
- Overlap with General Education may be permitted where appropriate.
Double Majors within and across College Boundaries

Examples of current practice—double majors are limited to majors offered within the same college

Two majors in the College of the Arts and Sciences

- Bachelor of Arts: first major = History
  second major = English
- Bachelor of Arts: first major = International Studies
  second major = Spanish
- Bachelor of Science: first major = Zoology
  second major = Classics
- Bachelor of Science: first major = Psychology
  second major = Chemistry (either BA or BS version of the major)

Two majors in the College of Food, Agricultural, and Environmental Sciences

- Bachelor of Science in Agriculture: first major = Plant Health Management; second major = Entomology (until Entomology moved from ASC to FAES, this would not have been a possible combination)
- Bachelor of Science in Business Administration: specialization = Finance
  second major = Spanish
- Bachelor of Science in Mechanical Engineering: first major = Mechanical Engineering
  second major = Mathematics
- Bachelor of Science in Pharmaceutical Sciences: first major = Pharmaceutical Sciences
  second major = Arabic
- Bachelor of Science: first major = Biology
  second major = Entomology
- Bachelor of Arts: first major = Political Science
  second major = Public Affairs

Examples of proposed practice*

- Bachelor of Science in Business Administration: specialization = Finance
  second major = Spanish
- Bachelor of Science in Mechanical Engineering: first major = Mechanical Engineering
  second major = Mathematics
- Bachelor of Science in Pharmaceutical Sciences: first major = Pharmaceutical Sciences
  second major = Arabic
- Bachelor of Science: first major = Biology
  second major = Entomology
- Bachelor of Arts: first major = Political Science
  second major = Public Affairs

* These examples are currently unapproved theoretical possibilities. To participate in this arrangement, colleges would need to agree to “donate” their majors—to allow a major normally associated with a degree in the college to be noted on the transcript as a second major when a student completes a degree in another college—and/or to “receive” majors—to allow a second major normally associated with a degree in another college to be noted on the transcript for a student completing its degree.