REPORT FOR THE UNIVERSITY SENATE

University Senate Committee: Academic Policies Committee

Brief History of Issue—why the issue is being considered:
Two graduates have pursued a Math emphasis. Both report that having a strong Math background helped them to advance professionally. A transcript notation is appropriate and valued by students.

Points Discussed by Committee:
(Note: The Academic Policies Committee discussion was relevant to both proposals for Materials Science emphases—Math and Entrepreneurship. Therefore, the points discussed are identical in both APC reports.)

1. The stimulus to develop both the Math and the Entrepreneurship emphases came from Materials Science students interested in tailoring their academic career to better prepare them for their professional career. The Materials Science faculty and directors are open to student requests to develop the curriculum.
2. The emphases will not exceed the credit requirements of the current major; rather, the emphases will provide options for students. Students will choose one emphasis for their major.
3. For the Math emphasis: any course appropriate for a Math major would be appropriate for a Math emphasis.
4. For the Entrepreneurship emphasis: The College of Business redesigned its Entrepreneurship program to enable non-College of Business juniors and seniors to take courses. Materials Science and Entrepreneurship collaborated to determine which courses would be most beneficial. The proposed emphasis requires three courses (9 credits).
5. The existing emphases each have 8 or 9 credits. All emphases contain the core courses plus 2-3 other courses (either specified or elective—please refer to the Undergraduate Catalog, page 150).
6. Students have expressed interest in other, specific Materials Science courses. However, rather than create new courses in Materials Science and possibly have low enrollment, a better idea is to satisfy student request using existing courses taught as parts of other programs.
7. Both the Math department and the Management and Marketing Department (home of the Entrepreneurship program) support the proposals for these emphases.

Pros of Recommendation:
1. Demonstrate responsiveness to student request for formalizing their coursework
2. Better prepares students for their professional career
3. Meets a need with existing resources
4. Has support of collaborating departments

Cons of Recommendation:
Some from the outside technical community would suggest that UWEC is investing its credit space in this major to an emphasis rather than directing it to more technical content such as more engineering, differential equations in Math, etc. However, both the Academic Policies Committee and the Directors of the Materials Science program agree that the UWEC program is unique in that our program is purposefully interdisciplinary and based on a solid liberal education foundation.

Technology/Human Resource Impact: None
No new courses are being developed. The emphases will use existing courses taught by existing faculty.

Committee Recommendation:
Establish a Mathematics of Materials Emphasis (Code 250-XXX) within the Comprehensive Major: Materials Science, Liberal Arts major and update the Undergraduate Catalog as follows:

Mathematics of Materials Emphasis (Code 250-XXX)
Core courses plus eight credits from Math 216 and any Math course numbered 312 or higher
MOTION FOR THE UNIVERSITY SENATE

The Academic Policies Committee,

by a vote of 8 in favor and 0 against on November 25, 2014

recommends that a Mathematics of Materials Emphasis (Code 250-XXX) within the Comprehensive Major: Materials Science, Liberal Arts major be established and the Undergraduate Catalog updated as follows:

Mathematics of Materials Emphasis (Code 250-XXX)
Core courses plus eight credits from Math 216 and any Math course numbered 312 or higher

Implementation Date: 2015-2016 Catalog

Signed: _______Jean A. Pratt_____
Chair of the Committee

Send to: University Senate Office