2-19-2016

DOC 2016-02 Merger of the Department of Engineering Management & Systems with the Department of Engineering Technology

School of Engineering

PROPOSAL TO THE ACADEMIC SENATE

TITLE:	Merger of the Department of Engineering Management & Systems with the Department of Engineering Technology
SUBMITTED BY:	School of Engineering
DATE:	19 February 2016
ACTION:	Legislative Authority
REFERENCE:	DOC 2014-04: Actions Pertaining to Degree Programs and Academic Departments

SUMMARY:

The School of Engineering is proposing to merge the Department of Engineering Management & Systems with the Department of Engineering Technology and establish a new Department to be named Engineering Management, Systems, and Technology. This is a purely administrative realignment; the degree programs and courses offered by the two existing Departments will be fully maintained. The proposed merger will create a Department that is better aligned with the others in the School, enable the associated faculty to more broadly participate in the School's academic mission, foster collaboration and innovation, and produce efficiencies that will enable administrative costs to be reduced.

RATIONALE:

Merging the Engineering Technology Department (ETD)—which offers degrees at only the undergraduate level—with the Department of Engineering Management & Systems (EMS)—which offers degrees at only the graduate level—will more fully align the resulting Department with the four other School of Engineering departments[1] that offer degrees at both levels. It thus will enable the associated faculty to more broadly participate in, and contribute to, the strategic mission of the School and provide them with enhanced opportunities to collaborate and develop professionally as teachers and scholars. Offering degrees at both undergraduate and graduate levels would also enable the merged Department to better weather the ebbs and flows of enrollments over time.

The merger is also expected to enhance the synergy that already exists between the Departments. For example, the majority of ETD graduates that continue their education do so within the master's programs offered by EMS. There is a similar curricular focus within the two Departments as their respective degree programs tend to be more practice-oriented than theory-based or research-focused. Both faculties share a common interest in strong engineering pedagogy and there is much commonality in courses, focus, and faculty expertise between the Industrial Engineering Technology bachelor's program and the Engineering Management master's program. It is anticipated that the more direct collaboration fostered by the merger will enable the development of innovative new programming at both the undergraduate and graduate levels.

[1] These are the Departments of Chemical & Materials Engineering; Civil & Environmental Engineering & Engineering Mechanics; Electrical & Computer Engineering; and Mechanical & Aerospace Engineering.

The Department of Engineering Technology is currently staffed by eleven full-time faculty, one lab technician, and one administrative assistant, while the Department of Engineering Management & Systems is likely the smallest on campus with just four full-time faculty[2] and its own administrative assistant. Both Departments have faculty members serving as chairs on 12-month contracts. The proposed merger would reduce administrative overhead by saving summer salary (plus benefits) for one chair and eliminating one administrative assistant position. All existing faculty positions will be maintained.

ADEQUACY OF FACULTY, STAFF, AND OTHER RESOURCES:

Both the Department of Engineering Technology and the Department of Engineering Management & Systems utilize a large number of part-time instructors to cover their teaching needs given the insufficient number of full-time faculty. This merger will neither diminish nor add to these full-time faculty needs. The Departments are currently served by the following faculty.

Full-Time Faculty

Engineering Management & Systems: John Doty; Edward Mykytka; Kellie Schneider; Daniel Zalewski

Engineering Technology: Philip Appiah-Kubi; Rebecca Blust; Mark Diller; Charlie Edmonson; Mohhamad Esmaeili; Sean Falkowski; James Globig; Marina Johnson; Scott Schneider; Scott Segalewitz; Joseph Untener

Adjunct Faculty (More than one course taught since Fall 2014)

Engineering Management & Systems: Donna Back (Growing Splendid Leaders, LLC); Lance Champagne (Air Force Materiel Command); Charles Ebeling (UD professor emeritus); Sunil Kulkarni (Emerson Climate Technologies); Raymond Hill (Air Force Institute of Technology); David Long (Alion Science and Technology); James Morris (National Air and Space Intelligence Center); James Robinson (Lexis-Nexis); Vincent Russo (Growing Splendid Leaders, LLC); Richard Sugarman (Air Force Institute of Technology); Alfred Thal (Air Force Institute of Technology).

Engineering Technology: Melvin Brown (BIMAC Machine - retired); Joseph Carey (Dayton Forging and Heat Treat Co.); Glen Danner (Honda of America Manufacturing Inc. - retired); Sandra Feola (Advics Manufacturing Ohio); James Hartings (NanoSperse); Richard Iannacchione (CDO Technologies); L. Tyson Ross (Wright Patterson AFB); Jon VanDonkelaar (Bellbrook Energy, LLC); Richard Weisenberger (Wright Patterson AFB).

Both Departments enjoy sufficient administrative support from their respective chairpersons and administrative assistants. The merged Department will only require a single chairperson and a single administrative assistant, producing an effective reduction in the fiscal resources allotted to administrative duties. This reduction will, of course, increase the workloads of the remaining individuals who would be serving a larger faculty and supporting academic programs at both the undergraduate and graduate levels. The increased workload is a concern, but is expected to be mitigated by efficiencies in operation which can be achieved by merging redundant functions. The merged Department will also continue to be supported administratively by undergraduate student workers and a graduate assistant (or part-time staff person) for which resources are currently allocated.

[2] The proposed merger will also enable EMS to more effectively overcome some of the intrinsic difficulties associated with being a 4-faculty-member department (e.g., challenges include the ability to simultaneously pursue multiple initiatives, promotion & tenure review, committee participation, etc.).

Needs for laboratory and library resources remain unchanged by the proposed merger since no academic programming will be impacted by the merger. While it would be highly desirable to create a contiguous physical space that would enable all the new Department's personnel to be collocated,[3] existing facilities are sufficient to accommodate its faculty and staff.

EFFECT ON DEGREE PROGRAMS AND OTHER DEPARTMENTS:

None. Since the academic programming offered by the two existing Departments will be fully maintained, no degree programs will be impacted, either internal or external to the Departments of Engineering Technology and Engineering Management & Systems. Specifically, the existing four Engineering Technology majors of Electronic and Computer Engineering Technology, Global Manufacturing Systems Engineering Technology, Industrial Engineering Technology, and Mechanical Engineering Technology along with the Engineering Management and Management Science master's degree programs will remain unchanged as a result of this merger. The merged Department will continue to serve the University community in the same ways as prior to the merger. The merger is expected to have little or no impact on current or prospective students.[4]

Summaries of recent and projected enrollments are provided in the table in the Appendix.

ADMINISTRATIVE STRUCTURE:

The new Department of Engineering Systems, Technology and Management will be led by a single chairperson who reports to the dean and will be supported by one full-time lab technician and one full-time administrative assistant who will be assisted by undergraduate student workers and an administrative graduate assistant or part-time staff person.

CONSULTATION:

The full-time faculty and staff in both existing Departments were consulted as this proposal was developed and were asked to vote on the proposed merger. The vast majority were in favor. Specifically, 14 voted for the proposed merger, 2 voted against, and 2 abstained or responded with a less than definitive response. Please see the attached letters from the respective Department chairs for more details.

The Dean of the School of Engineering forwarded a draft of this proposal to the deans of the other academic units and the associate provosts and requested response in order to confirm that the proposed merger would not negatively impact other units, departments, or programs. The results of this consultation are summarized in the Dean's letter attached.

APPROVALS:

- Department of Engineering Management & Systems: 6 October 2015
- Department of Engineering Technology: 6 October 2015
- Academic Leadership Committee, School of Engineering: 28 October 2015
- Dean, School of Engineering: 20 November 2015
- Graduate Leadership Council: 15 December 2015

[3] Such a collocation and other School-wide facility issues are identified in the School of Engineering's 2015 Strategic Plan and would be addressed independent of this proposal.

[4] One exception might be if the presence of a follow-on graduate program within the merged Department were to enhance the attractiveness of the Department's undergraduate degree programs to prospective students.

APPENDIX

Based on University Fact Book data, Table 1 summarizes the Fall term enrollments (numbers of majors) in the two most recent academic years and provides projections for the next three. The projections show undergraduate enrollments being at least maintained at the high levels that have been experienced over the past two years and which are nearly 20% higher on the average than those experienced in the preceding eight; see Figure 1. Graduate enrollments are projected to increase at a modest rate despite volatility in the numbers of qualified international applicants and the dissolution of the University's partnership with Deltak, a vendor of online program management services.

Table 1. Numbers of Students[5]

	2014-15	2015-16	2016-17	2017-18	2018-19
Undergraduate Students:	332	327	330	330	330
Major:					
Electronic & Computer Eng. Technology	66	59	65	65	65
Global Manufacturing Systems Eng. Tech.	26	12	15	15	15
Industrial Engineering Technology	54	59	60	60	60
Mechanical Engineering Technology	153	155	150	150	150
Discover Engineering Technology	33	42	40	40	40
Gender:					
Female	52	41			
Male	280	286			
Ethnic/Racial Identity:					
Non-Resident Alien	104	97			
Black/African-American	19	20			
Hispanic	19	19			
White	176	173			
Other or Unknown	14	18			
Graduate Students:	116	98	102	107	112
Major:					
Engineering Management	107	87	92	97	102
Management Science	9	11	10	10	10
Gender:					
Female	26	21			
Male	90	77			
Ethnic/Racial Identity:					
Non-Resident Alien	56	38			
Black/African-American	7	2			
Hispanic	1	2			
White	37	36			
Other or Unknown	15	20			

[5] 2014-15 and 2015-16 data obtained from the Director of Institutional Reporting, February 2016.

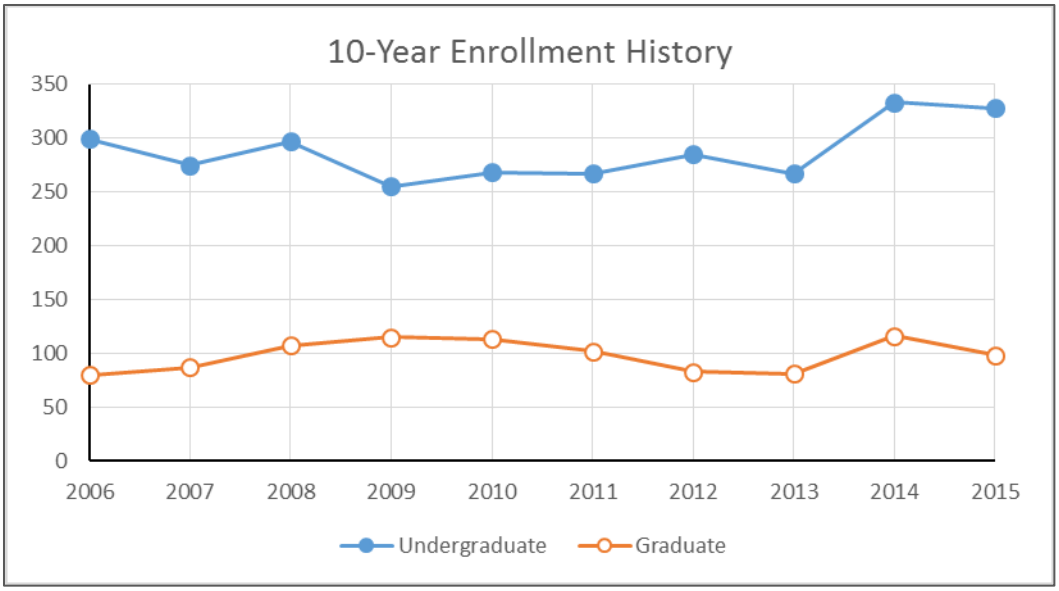

Figure 1. Undergraduate and Graduate Majors, 2006-2015