

**Industrial Advisory Committee
Technology Department
Meeting Minutes: May 2, 2014
College of Engineering
Carbondale, IL**

Present:

1. Chuck Kuhn (AISIN)
2. Kelly Fenton (Versatech Engineering)
3. Kent Gouty (GM)
4. Ron Milligan (The Boeing Company)
5. Gabe Smith (John Deere)
6. Bart Walker (Air National Guard)
7. Roger Chang
8. Bruce DeRuntz
9. Julie Dunston
10. Mandara Savage
11. Tomás Velasco

Introduction of Members

The meeting commenced with an introduction of the industrial advisory committee members and on-campus faculty.

Nomination of New Members – Gabe Smith, Nick Baudino

Two new members, Gabe Smith and Nick Baudino, were nominated to join the industrial advisory committee by J. Dunston. *Motion to approve the new members was made by B. DeRuntz, seconded by K. Gouty. Motion was approved unanimously.*

Approval of Spring 2013 Minutes

Minutes of the Industrial Advisory Committee meeting held on April 26th, 2013, were reviewed. *Motion to approve the minutes was made by R. Milligan, seconded by M. Savage. Motion was approved unanimously.*

Announcements/Events

- a. J. Dunston announced that the Graduate Council approved the new on-line master's degree in Supply Chain Management and Engineering, a joint program between the College of Engineering and the College of Business. It is anticipated that the first cohort will start the program in Fall 2015.
- b. J. Dunston commented that the department continues to participate in the UCOL101 Introduction to Engineering course. Participation includes one class session in which students are introduced to the programs offered in the department and the curriculum

- involved. In addition, activities are developed and assigned to the class that provide hands-on experiences in areas related to industrial technology and electrical engineering technology.
- c. T. Velasco stated that the 11th annual ASQ Conference was held the previous day, with a record number of attendees: 90 people registered, with 40 of those being students. K. Gouty asked what the increase was attributed to and T. Velasco commented that more extensive advertising of the conference took place. The Paducah ASQ Chapter and the Illinois Manufacturing Excellence Center actively promoted the conference.

Industrial Technology

- a. J. Dunston announced that all the undergraduate IT courses were now on-line. These were developed by IT off-campus faculty who had been teaching courses in the weekend face-to-face format.
- b. M. Savage presented the enrollment figures for the department, noting a significant drop in IT enrollment which he stated could be primarily attributed to a drop in off-campus enrollment. The enrollment in military programs went from 94 to 58 students, while the industrial program enrollment dropped from 149 to 106 students. This comparison was made between the Fall 2012 and Fall 2013 semesters. M. Savage commented that a major impact on enrollment was the change in the tuition rate. Effective in Spring 2013, the differentiated tuition rate of \$225/credit hour for military students was eliminated when the off-campus programs were placed under the office of Distance Education. Previous to this change, military tuition assistance programs were able to cover the cost of tuition. Around the same time, companies (such as Caterpillar), placed a moratorium on tuition reimbursement. The positive side of this was that students were then eligible to apply for University financial assistance.
 - i. One of the action plans to address the decline in enrollment is to reestablish a marketing campaign. R. Chang stated that, approximately 4 years ago, he initiated a focused marketing strategy that began by looking at all off-campus sites and identifying all companies within a 30-mile radius of each site. Within each company, specific individuals (such as engineering managers) were targeted and personal letters sent to them which introduced our program and what it had to offer. At the time, the Lean and Six Sigma courses were highlighted. R. Chang proposed that the same strategy be implemented again, with emphasis on the online program as well as several courses that would have broad appeal. This would include Lean, Project Management, and GD&T. R. Chang plans to send out information to companies in two waves. The first wave would emphasize the on-line program option and the second wave would focus on the curriculum changes and highlight the Professional Development Sequence (PDS) in Lean Six Sigma. C. Kuhn inquired whether students could take just one course. K. Gouty agreed that allowing students the flexibility to pick and choose courses would be beneficial in terms of personal development and performance on annual evaluations. C. Kuhn added that the courses proposed would help enhance problem-solving skills. M. Savage commented that in order to take any of the

- courses in the PDS, the prospective student would have to apply for admission to and be accepted into the University.
- ii. Prior to the proposed PDS in Lean Six Sigma, the department investigated the possibility of offering a certificate program. For undergraduate certificate programs, the Illinois Board of Higher Education requires a minimum of 30 credit hours. Another option was to offer a non-degree diploma which could be titled to fit the courses within this program. The courses that would be part of the Professional Development Sequence in Six Sigma include Project Management, Lean Manufacturing, Six Sigma Green Belt I, and Six Sigma Green Belt II. These courses are currently offered face-to-face and on-line, so there would be a high degree of flexibility for students who are employed full-time and located outside of Carbondale. G. Smith stated that he liked the idea of a certificate program but expressed some concern over the lack of interaction in on-line courses. B. Welker commented that, in the National Guard, every course needs approval from the commander. In the DoD, every branch has a continuous improvement focus, so the department could focus on aligning with the military requirements for belt certification to attract students. K. Fenton suggested marketing the capstone program, as well as getting program information to trade programs and community colleges – getting back to basics.
 - iii. Proposed curriculum changes were presented by J. Dunston. Currently, motion & time content and facilities planning content are merged into one course entitled Facilities Planning & Workplace Design. Based on informal feedback from students (primarily off-campus), the department has considering separating the existing course into two courses, as was offered previously. K. Fenton suggested that if M&T was a separate course that it be called something different, such as Workplace Design. C. Kuhn recommended using optimization in the title. R. Milligan proposed Workplace Design and Optimization. A discussion ensued regarding what would be covered as it relates to optimization. Ultimately, the committee decided that a single course could sufficiently cover the relevant material. A second proposed change is to change Six Sigma Black Belt I from a required course to an elective for undergraduate students. The third curriculum change is to replace Production and Inventory Control with Supply Chain Management I. A second course, Supply Chain Management II, would also be developed. K. Fenton asked if PIC content would be included in the SCMI course. R. Chang responded that operations management content would overlap PIC. R. Milligan asked whether the courses would be offered at the undergraduate or graduate level. R. Chang replied that SCMI would be an undergraduate course and SCMII would be a graduate course. C. Kuhn recommended including supplier capacity and risk management in the supply chain course, K. Fenton proposed the addition of internal inventory management, and G. Smith suggested strategic sourcing and supplier selection. *J. Dunston made the following motion: to keep the existing Facilities Planning & Workplace Design as is, to change Six Sigma Black Belt I from a required course to an elective course, to replace Production & Inventory Control with Supply Chain Management I and to add Supply Chain Management II; seconded by C. Kuhn. Motion was approved unanimously.*

- iv. J. Dunston presented a proposed name change for the IT program to “Industrial Management and Applied Engineering”. K. Gouty commented that he liked using the terms “management” and “engineering”. G. Smith asked if the program would still fall under ATMAE accreditation. M. Savage replied that it would. G. Smith commented that the name was very marketable. K. Fenton stated that the name “applied engineering” separates the technologists from the engineers. C. Kuhn agreed and proposed the name “Industrial Engineering Technology”. R. Milligan recommended keeping technology out of the name altogether. C. Kuhn mentioned Process Engineering. T. Velasco replied that we would have to add more calculus courses if the program was strictly engineering. R. Milligan stated that “applied engineering” is key, possibly adding process management. The consensus was that the proposed name change was appropriate and that it reflects the existing curriculum. *Motion to approve the name change for the IT program to “Industrial Management and Applied Engineering” was made by B. DeRuntz, seconded by R. Milligan. Motion was approved unanimously.* M. Savage mentioned that he would also solicit input from faculty in the off-campus regarding the proposed name change.
- c. M. Savage presented the results of a curriculum survey that was administered in December 2013 to on-campus and off-campus students, providing highlights of the feedback. All courses in the curriculum were evaluated by students based on perceived relevance in the workplace and importance that the employer places on specific content.
- d. J. Dunston mentioned that employer and alumni surveys will be sent out in the near future in preparation for the upcoming accreditation. A self-study report will be prepared in the fall (2014), with a site visit in spring 2015.

Quality Engineering and Management

Enrollment in the QEM program has increased, particularly in the on-line program. The on-line program graduated its first students in December 2013 and more will be graduating at the end of the spring 2014 semester. It is anticipated that the on-line program enrollment will continue to increase in the fall 2014 semester.

7. PhD Concentration in Industrial & Quality Engineering

T. Velasco stated that the department is pursuing a PhD concentration in Industrial and Quality Engineering within the Engineering Sciences PhD program in the College of Engineering. The concentration would consist of a total of 15 hours of coursework. The department is continuing to seek approval for the concentration and will keep the committee updated on its progress.