

**Industrial Advisory Committee
Technology Department
Meeting Minutes: May 3, 2019
College of Engineering
Carbondale, IL**

Present:

IAC members:

- Jim Akers, Quality Manager (Woodward, Inc.)
- Shawn Batka, Director of Strategic Supply (Turtle Wax)
- Nick Baudino, Quality Manager (Caterpillar)
- Jessica Carrillo-Morris, Manufacturing Manager (General Cable)
- Chuck Kuhn, Vice President of Quality and Production Control (Aisin Electronics Illinois)
- Kent Gouty, Quality Engineer (GM)
- Derek Naylor, Packaging Engineering Manager (Caterpillar)
- Gabe Smith, Supplier Quality Engineering Manager (John Deere)
- Bart Welker, Manager of Operational Excellence (Department of Central Management, State of Illinois)

Faculty:

- Bruce DeRuntz
- Julie Dunston
- Tomas Velasco

1. Introduction of Members

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

2. Approval of Spring 2018 Minutes

Minutes of the Industrial Advisory Committee meeting held on April 27, 2018, were reviewed. *Motion to approve the minutes was made by C. Kuhn, seconded by B. Welker. Motion was approved unanimously.*

3. Announcements/Events

ASQ Conference	<p>a. T. Velasco announced that the 16th annual ASQ Conference, held the previous day, had around 85 participants. This was down slightly from last year. C. Kuhn indicated that students could be encouraged to bring a friend. Other ideas for next year’s conference included: offering a career fair (J. Carillo-Morris), networking bingo to encourage students to interact with industry participants (G. Smith) during lunch (S. Batka), encouraging international student participation (G. Smith), conducting mock interviews (S. Batka), panel session with industry professionals (D. Naylor & N. Baudino). C. Kuhn suggested advertising the networking opportunities available for students at the</p>
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	conference. K. Gouty asked about the possibility of the IMAE program joining the Foundry Education Foundation (FEF).
Midwestern Robotics Design Competition	b. The ATMAE robotics team participated in the Midwestern Robotics Design Competition at the University of Illinois. There were multiple competitions that took place and B. DeRuntz announced that SIU Robotics took 1 st place in the Robobrawl competition. SIU had 5 teams that competed. The robotics team has experienced success over the past several years in the competitions they have participated in, bringing home 1 st place trophies in several events. Recently, the Discovery Channel approached the team about featuring them in one of their segments.
Collegiate Leadership Competition	c. B DeRuntz announced that the members of the Leadership Development Program (LDP) participated in the Collegiate Leadership Competition (CLC) for the 2 nd year in a row. This is an international competition with over 70 institutions participating this year. SIUC took 2 teams and both placed in the top 15, one team finished 2 nd overall. C. Kuhn asked how many students attended and B. DeRuntz stated that there are 25 students in LDP and that there is an internal competition for 12 spots. C. Kuhn inquired how the team was selected and if consideration was given to balancing strengths. B. DeRuntz stated that the CliftonStrengths assessment is used to identify the dominant personality types and put together a team that encompasses
Minor in STEM Leadership/LDP	d. The existing LDP activities have been formalized into a curriculum that is being offered as a minor in STEM Leadership. Classes in the minor will be offered in fall 2019 and B. DeRuntz is working on recruiting students. 55 students participated in the Spring Orientation. LDP received the Delyte Morris award for Excellence in Community Service based on the 13 projects that were completed during the past academic year. The award is presented annually to the student or student organization that best demonstrates excellence and commitment to community service.

4. Review of Feedback from IAC Spring 2018 Meeting

IAC Feedback	An update on feedback from the 2018 IAC meeting was presented. B. DeRuntz will make a request to Mechanical Engineering faculty to present a lecture or two on hydraulics/pneumatics in the IMAE 208 (Manufacturing Processes) course. S. Batka will provide APICS resources and work with the department on modifying content in the supply chain course(s) to incorporate the body of knowledge for specific APICS certifications. A new textbook for IMAE 390 (Cost Estimating) has been selected and consideration will be given to incorporating the following content: price reductions, annual price review and total cost of ownership, overall plant operational costs. IMAE 305 (Safety) was not offered on campus in the past academic year but off campus instructors will be engaged in the discussion on adding topics such as safety procedures, safety prevention/safety pyramid, and a safety briefing at the start of each class. J. Akers presented a document for planning experiments at the ASQ conference that could be utilized in the Six Sigma course.
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5. SIUC Restructuring Plan

Restructuring	<p>J. Dunston provided an update on SIUC’s restructuring plan. Seven RMEs (Request for Moderate Extension) linked to the creation of new Schools were approved at the IBHE level at the beginning of the year. The existing programs in the Department of Technology will be housed in the School of Applied Engineering and Technology, along with two additional undergraduate programs: Technical Resource Management (TRM) and Electronic Systems Technologies (EST). The intention is all 7 approved Schools to go live July 1, 2019.</p>
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6. Industrial Management and Applied Engineering

Daley	<p>a. A new IMAE off campus site has been opened at Daley College, one of the City Colleges of Chicago. Courses will be offered beginning fall 2019 with an expected enrollment of 12-15 students.</p>
Enrollment Data	<p>b. J. Dunston presented enrollment data for the IMAE and QEM programs from fall 2012 – fall 2018. Enrollment on campus is declining while on line enrollment continues to grow. The challenge for off campus programs is the decrease in enrollment at military sites. B. Welker commented that there is a need for the IMAE curriculum in aircraft maintenance and that a flyer could be created to highlight the program. J. Dunston stated that there are restrictions to advertising on base since the MOU prevents marketing unless it is a general event that promotes all educational programs. B. Welker stated that he may be able to assist with identifying opportunities to promote on base.</p> <p>K. Gouty suggested hosting a robotics camp to bring prospective students to campus. S. Batka recommended targeting high schools with vocational programs.</p>
Curriculum Review/Robotics	<p>c. C. Kuhn asked if emotional intelligence was covered in the program. B. DeRuntz stated that it is discussed in IMAE 442 (Fundamentals of Leadership) and a graduate level course (QEM 550 Project Leadership), referencing the work of Daniel Goleman.</p> <p>d. The IMAE curriculum was presented and the committee was asked for their input on incorporating robotics/automation content. The following suggestions were made:</p> <ul style="list-style-type: none"> • Add a robotics specialization to EET (J. Carillo-Morris, N. Baudino) • Add a robotics specialization to IMAE (J. Akers) • Create a robotics certificate, include PLC programming (G. Smith) • Robotics maintenance (D. Naylor) <p>The general consensus was to look at incorporating robotics/automation in the EET program.</p>

Assessment Results	e. Assessment results were presented by J. Dunston. Student outcomes for the program have been developed and each outcome is linked to at least one course. Within individual courses, assessment methods have been identified that link to a student outcome. Student performance is measured and tracked for improvement opportunities. C. Kuhn suggested conducting a Pareto Analysis of “defects” and automating the process.
Continuous Improvement Minor	f. The continuous improvement minor was approved in spring 2018 and is available for students to add to their degree plan in fall 2019. Courses in the minor include IMAE 376 Supply Chain Operations and Logistics, IMAE 450 Project Management, IMAE 465 Lean Manufacturing, and IMAE 470a Six Sigma Green Belt.

7. – 9. Strategic Planning, QEM, PhD

Strategic Planning	J. Dunston presented the department’s balanced scorecard results as part of the strategic plan. Action plans are developed to address fundraising, enrollment, research, and industry collaboration.
QEM	<p>a. An accelerated masters in QEM has been approved and will be in effect starting summer 2019. Requirements for enrollment in this program include a B.S. in IMAE and a GPA of 3.5 or higher in IMAE coursework.</p> <p>b. Work has been initiated to request approval for a new graduate program: M.S., Quality Engineering in Healthcare. The curriculum would combine existing courses in QEM and in Healthcare Administration.</p>
PhD	Enrollment in the Industrial and Quality Engineering (IQE) concentration within the Engineering Sciences program continues to grow. There are currently 5 PhD students.