Fall 2018 Mechanical Engineering External Advisory Board Minutes

Friday, September 14, 2018

New Engineering Building (EERB) tour

- Members of the EAB and Carl toured the new Engineering Building (EERB)

Energy Innovation Center

Present: Carl Frick, Annette Lynch, Rowland Linford, Maureen Hand, Robert Decker, Ben Vetter, Ken Jensen

CEAS Update – Michael Pishko, Dean

- Introductions made
- Dean Pishko reported on the state of the college including budgetary items, faculty/adjuncts, enrollment growth
- Program fees increased over all of UW
  - For Engineering, fees increased to > $20 per student per credit hour
  - Funding will be used exclusively for improving student experience, focused on undergraduate laboratories
- Discussion/explanation of allocated funds associated with Tier 1
  - Funds have been used to support educational, outreach, and research missions
- New EERB building set to complete February 2019
  - Building layout to promote – flexibility, innovation, and collaboration
  - Bottom floors are focused mostly on education including maker space & active learning
  - Top floors are focused on collaborative, multi-user research space based on overarching research directions

Opened conversations and comment

- Tier 1 Progress
  - Discussion on T-1 funding, established research areas, industry fellowships, undergrad matching programs, women engineers
  - New building is expected to help with recruitment of students and faculty

- Other Information
  - Update on energy plant that is needed to support the EERB
    - Likely to be built in the future adjacent to campus
  - Dean Pishko’s prediction for the future is growth in student population, increase job placement

Adjourned for lunch.

ME Department Update – Carl Frick, Dept Head

Carl gave presentation to the board and covered the following information & updates:

- Explanation of Dolling/Scott Award, announced Erica Belmont & Jonathan Naughton as recipients
- Faculty/Staff changes - welcome Yang Liu (faculty) & Jadeen Mathis (Staff)
- Explanation of the Central Advising Office
- ME course fees, $25 dollars a credit-hr
ME remains the largest department on campus

Snapshot of Engineering ME/ESE Student Population: 517 total students, ME-BS 437 (85%), ESE-BS 30 (6%), MS 25 (5%), PhD 25 (5%)

9% growth in ME (at UW), consistent with national trends

Discussed the UG student population evolution from 2007-2019, decline in ESE-BS

124,477 BS Degrees awarded nationally, 30,030 of those are Mechanical Engineering

Course overview-highlighted required courses in relation to the ME Success Curriculum, and regularly offered electives, also mentioned that ME courses are only offered once a year

Spring 2018 FE Exam pass rates, over the last 5 years UW’s ME is at 86%, ESE is 88%, Nationwide-ME is 81%, all other CEAS disciplines 75%

Explanation of faculty’s research and awards

Meet with undergraduate students
Board members met with a variety students to listen to their concerns about the department. Students reported very few concerns – lab equipment outdated, students would like an AutoCAD class. Students would like to see more TA/professor communication/teamwork. Overall, students were positive about their educational experience.

Meet new Assistant Professor – Yang Liu
Yang Liu gave an introduction and discussed his background information, he talked about his affiliation with Schlumberger, and briefly presented his future research at UW.

Associate Dean – Paul Dellenback
Paul discussed the Honors Program and its requirements, also explained how it ties into marketing and recruiting. For ME, Honors students are likely to take 5000-level courses during their senior year, which Paul explained may act as a feeder to our quick-start BS/MS program.

Board Business

- Carl briefly explained the handouts given to the board, welcomed the board to provide feedback on the ME department strategic plan/vision statement
- Discussion of ME undergrad student concerns, very few complaints
  - Carl discussed possible solution of hiring undergrad TA’s for lab courses
  - Discussion of computer programming, Excel, MATLAB, SolidWorks

Carl Frick, Dept Head & Robert Decker, EAB Chair

- Accept/modify minutes from September 29, 2017 meeting
  - One editorial correction, completion date of the new building February 2019
- Accept bylaws, change revision date to September 2018
- Discussion of Education and Skills Document
  - Possible next steps or activities the board will engage in

Saturday, September 15, 2017
Marian H. Rochelle Gateway Center, 222 S 22nd St Guthrie Conference Room, 3rd Floor

Board Business (continued)

- Further discussion about the Education and Skills Document
  - Add introduction, title, data analytics
- Discussion about the purpose/expectations of the document
- Deadline to make changes, end of September 2018

- Carl gave an ABET update
  - ESE and ME assessment issues, there will be changes moving forward on assessment geared towards simplification of assessment

- Review meeting document contents:
  - **Commendations**
    - ABET renewal
    - ME Strategic Plan
    - Research grants from diverse funding agencies & industry
    - Multidisciplinary research conducted by ME faculty across campus
    - Two ME faculty members who were voted top instructor/researcher for Dolling/Scott Award
  
  - **Recommendations**
    - Pursue the idea of hiring undergrad TA’s for laboratories
    - Revamp laboratory equipment/facilities
    - Incorporate CAD into the curriculum

  - **Discussion**
    - Postdoc funding, possible NRC fellowships to fund Postdocs

  - **Action items**
    - EAB provide bio & headshots to put on the website, due October 15, 2018
    - Review Strategic Plan by the end of the month, September 2018
    - Maureen Hand will review and modify Education and Skills Document by the end of September 2018
    - Robert will set up Slack for board discussions

There being no further business, meeting was adjourned.

Respectfully Submitted,

Jadeen Mathis
Office Associate Senior