Engineering Faculty Council 2018-2019

College of Engineering

University of Iowa

Meeting #7

Tuesday Oct 9, 2018

11:00 AM – 12 noon, room

SC 4511

1. Call to order
2. Approve minutes from EFC meeting #6
3. Announcements / updates
   a. Future visitors
      i. Oct 16, Craig Just (confirmed), David Murhammer (confirmation pending)
      ii. Oct 23, Michael Schnieders (confirmed)
4. Jason Kosovksi (confirmed)
5. Approve new members of curriculum committee
   a. Rick Fosse, Professor of Practice, CEE, one year term
   b. Raghuraman Mudumbai, Associate Professor, ECE
6. Ad hoc committee charges
Engineering Faculty Council 2018—2019
Meeting #06 October 2, 2018

DRAFT Minutes

Present (EFC): Profs. Rahman, Saha, Stanier, Wilder, Bai (IEPS ad hoc chair), Bhatti (IEC ad hoc chair)

Present (Dean’s office and/or other visitors):
• Nicole Grosland, ex-officio
• Larry Weber, ex-officio

1. Professor Stanier called the meeting to order at 11:05 a.m.

2. The minutes from the Sep 25 EFC meeting #5 were corrected and approved.

3. Announcements:
   Grosland mentioned PoT process is being reviewed at a university level

   Stanier met with Bradley about ABET approval of the Civil Engineering program and the
   Environmental Engineering program in order to counter the view that students in the
   Civil Engineering and Environmental Engineering programs would prefer to avoid
   computer engineering.

   Stanier met with Casavant regarding pitching AI and Casavant would produce a final
   report for the Dean and the Curriculum Committee.

   All people proposed for the ad hoc committees (IEPS and IEC) have accepted

   Murhammer agreed to chair the Curriculum Committee

   Mackey (Teaching Committee chair) agreed not to meet with the EFC regarding awards

   There was a discussion about the implications of the vote requested by Sonka regarding
   an off-campus MS program

   General question regarding the review of the curriculum: Do we continue the philosophy
   of “Engineering and Something More” as well as the “three-semester common core”?

4. We reviewed ad hoc committees and charges
   a. Stanier mentioned that Valentine has provided document regarding the history of EPS-I
      (now IEPS).
   b. Bai, asked where to look or to whom to turn to get data on the IEPS class
   c. It was emphasized that all ideas related to IEPS are welcome. The EFC were reminded
      that some of its goals have been related to retention, engagement, and excitement about
      the profession of engineering.
   d. Bai expressed its goals have been to build confidence, make it exciting, and foster
      teamwork.

5. We adjourned at noon.
Draft charge for ad hoc IEPS first year course experience committees

Version (by Stanier, 8/21/2018, 10/02/18 update, 10/4/18 update)

Membership:

Er-Wei Bai, Chair
Allen Bradley
Eric Nuxoll
Priya Pennathur
Chris Stoakes
David Wilder, EFC liaison (non-voting)
Nicole Grosland, Associate Dean (non-voting)

Jointly with the EFC Curriculum Committee, make a recommendation to the EFC regarding changes to the course IEPS / IEC for implementation in Fall 2021 and Spring 2022 that would retain the strengths of those courses, and improve them, giving strong consideration to the factors (expose students, develop skills, recruitment, retention, confidence building, excitement about the profession, teamwork etc.) listed in the May 2018 faculty-approved motion (attached).

Deliverables:

- **Fall Semester**
  - Prepare a short (~2-3 page) history of the course, including teaching philosophy, learning objectives, resource allocation (sections, teaching assistances, faculty, staff support), and pedagogy.
  - Prepare a report on strengths, weaknesses, constraints, and opportunities
  - Suggested timeline
    - October – stakeholder meetings
    - Dec 1 – “progress to date” documents to curriculum committee
    - Feb 1 – “progress to date” documents to EFC

- **Spring semester**
  - Prepare a recommendation consisting of a summary and rationale of recommended changes to the course, a resources list and budget estimate, a revised list of course objectives, and an implementation plan for implementation starting in F2021
    - Mar 15 – draft documents to curriculum committee
    - Apr 15 – draft documents to EFC, including a motion for presentation to the faculty

- **IEPS:** In addition to the above, the IEPS committee shall deliberate and vote
  - on whether IEPS is to “Give exposure to different types of engineering to aid in major selection” or whether that role should be filled entirely by other means, such as first year seminars and advising.
  - Recommend the degree of linkage between IEPS projects and lecture
  - Recommend whether students select project sections with knowledge of the project content (as opposed to current practice of random matching between projects and students).
  - Clarify the division of responsibility between IEPS and the Engineering Success Seminar with respect to overlaps, interactions, and attributes.
- Recommend minimum standards and continuous improvement of lecture and project sections along ABET guidelines
- Contemplate what could be done if resources were unlimited
Draft charge for ad hoc, IEC, first year course experience committees

Version (by Stanier, 8/21/2018, 10/02/18 update, 10/4/2018 update)

Membership:

Asghar Bhatti, Chair
Gary Christensen
Justin Garvin
Jon Kuhl
David Wilder, EFC liaison (non-voting)
Nicole Grosland, Associate Dean (non-voting)

Jointly with the EFC Curriculum Committee, make a recommendation to the EFC regarding changes to the course IEC for implementation in Fall 2021 and Spring 2022 that would retain the strengths of those courses, and improve them, giving strong consideration to the factors (expose students, develop skills, recruitment, retention, confidence building, excitement about the profession, teamwork etc.) listed in the May 2018 faculty-approved motion (attached).

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- **IEC:** In addition to the above, the IEC committee shall deliberate and vote
  - on the programming language(s) taught in the course, including possible input from departments and alumnae/i and the feasibility of student choice in selecting language(s) of focus through enrolling in language specific sections or projects
  - include recommendation on how to incorporate AI in IEC
  - Recommend minimum standards and continuous improvement of lecture and project sections along ABET guidelines
  - Contemplate what could be done if resources were unlimited
Non-comprehensive list of stakeholders and resources – consider consulting them.

Directors of undergraduate studies
- CBE – David Murhammer
- BME – Nicole Kallemeyn
- CEE – Paul Hanley
- ME – James Buchholz
- EE/CSE – Mark Andersland / Gary Christensen
- ISE – Yong Chen

Course Coordinators
- David Wilder, IEPS Course Coordinator (on EFC)
- Terry Braun, IEC Course Coordinator (on EFC Curriculum Committee)

Additional stakeholder groups or sources of information:
- Undergraduate students
- Alumni
- Staff (i.e. tutoring, computing support, shops, library, maker spaces, outreach, recruitment, advising, diversity)

<table>
<thead>
<tr>
<th>IEPS Lecture Instructors Since 2014</th>
<th>IEC Instructors Since 2014</th>
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<tbody>
<tr>
<td>Salam Rahmatalla 2018</td>
<td>Gary Christensen 2015-2018</td>
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<tr>
<td>Keri Hornbuckle 2017</td>
<td>(Honors section in 2016)</td>
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<tr>
<td>Jerry Schnoor 2016</td>
<td>Terry Braun, 2016, 2018</td>
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<tr>
<td>Michelle Scherer 2015</td>
<td>Joe Reinhardt 2017-2018</td>
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<td></td>
<td>Gheorghi Guzun 2017</td>
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<td></td>
<td>David Kristensen 2017</td>
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<td>Project Sections:</td>
<td>Mona Garvin 2017-2018</td>
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<td>Ruben Beltran 2017</td>
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<tr>
<td>Arun Pennathur 2015-2018</td>
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<tr>
<td>David Wilder 2014-2018 (honors)</td>
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<td>Richard Valentine 2014-2018</td>
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<td>Jennifer Fiegel 2015, 2017-2018</td>
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<td>Er Wei Bai 2015-2018</td>
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<td>Shaoping Xiao 2018</td>
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<td>Chris Coretsopoulos 2014-2018</td>
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<td>Just Garvin 2016</td>
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<td>Julie Jessop 2014, 2016</td>
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<td>Sureh Raghavan 2015</td>
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<td>Jacob Odgaard 204</td>
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<td>Gene Parkins 2014</td>
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<td>Uday Kumar 2014</td>
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<td>Gary Fischer 2014</td>
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<td>Chris Stoakes 2016-2017</td>
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