

ECE Department Meeting

November 6, 2020

Agenda

- Spring 2021 Schedule
- ABET
- TaskStream evaluation of every class
- Vote Computer Engineering Curriculum Changes
- Vote Electrical Engineering curriculum
- Degree Audits

Announcement:

Dr. Mohan Ketkar – Interim Associate Head

- **M. S. and Ph.D. Electrical Engineering, *University of Wisconsin-Madison***
- **Interim Department Head of Technology 3 years**
 - Curriculum, Accreditation and Department Service
 - ELET Course Scheduling & faculty assignments **11 years**
 - Actively participated in the TAC – ABET accreditation visit
- **ABET Evaluator**
 - IEEE as a Program Evaluator for ELET programs under TAC-ABET Visited three campuses to evaluate ELET programs
 - Member College ABET Committee
- **Program Coordinator in Technology 17 years**

Spring Schedule

- Check schedule for accuracy
- Work with Dr. Ketkar to correct schedule

Faculty should send schedule changes to Dr. Ketkar.

ABET Schedule

Course Assessment Schedule

AY	Fall	Spring
Mock Visit 2020-2021	√ Fall 2020 (Assessment & Binder)	√ Spring 2021 (Assessment & Binder)
ABET Visit 2021-2022	√ Fall 2021 (Assessment & Binder)	√ Spring 2022 (Assessment & Binder)

Notes: All Assessment reports and binders will be electronics.

STUDENT OUTCOMES VS. COURSES (ELECTRICAL ENGINEERING) REVISED FOR DISCUSSION

Electrical Engineering Courses	1	2	3	4	5	6	7
ELEG 3013 Network Theory II						X	
ELEG 3021 Logic Circuits Lab							
ELEG 3023 Signals and Systems	X						
ELEG 3033 Physical Princ. Solid State							X
ELEG 3043 Electronics I						X	
ELEG 3063 Logic Circuits						X	
ELEG 3071 Microproc. Sys. Lab							
ELEG 3073 Microproc Sys.	X						
ELEG 4003 Communication Theory	X						
ELEG 4011 Electronics Lab							
ELEG 4013 Energy Conversion						X	
ELEG 4033 Electro Field Thr I							X
ELEG 4043 Electronics II		X					
ELEG 4073 Control Systems		X					
ELEG 4472 Senior Design I			X	X	X		
ELEG 4482 Senior Design II	X	X	X	X	X		

Notes: The faculty agreed that we should continue to evaluate the upper level courses only for EE. Last weeks vote was overturned.

STUDENT OUTCOMES VS. COURSES (COMPUTER ENGINEERING) REVISED FOR DISCUSSION

Comp. Engineering Courses	1	2	3	4	5	6	7
ELEG 3013 Network Theory II						X	
ELEG 3021 Logic Circuits Lab							
ELEG 3023 Signals and Systems	X						
ELEG 3033 Physical Princ. Solid State							X
ELEG 3043 Electronics I						X	
ELEG 3063 Logic Circuits						X	
ELEG 3071 Microproc. Sys. Lab							
ELEG 3073 Microproc Sys.	X						
ELEG 4253 Embedded Systems		X					
ELEG 4303 Dig System Design		X					
ELEG 4333 Computer Networks	X						
ELEG 4393 Comp. Org. Arch							X
ELEG 4472 Senior Design I			X	X	X		
ELEG 4482 Senior Design II	X	X	X	X	X		

Notes: The faculty agreed that we should continue to evaluate the upper level courses only for CPEG program. Last weeks vote was overturned.

Poll Vote

Majority of the faculty voted to continue evaluating upper-level courses.

Computer Engineering Curriculum Changes

- Freshman Year
 - Replace COMP 1213 & 1211 CS I with ELEG 1053 Programming for CPEG I (**faculty voted to make the change but- add in course description sentences to relate to computer engineering**)
 - Replace COMP1223 & 1221 CS II with ELEG 1063 Programming for CPEG II (**faculty voted to make the change but- add in course description sentences to relate to computer engineering**)
- Sophomore Year
 - Replace COMP 2013 Data Structures with ELEG 2033 Data Structure and Algorithms – **faculty voted to make change**
 - Replace MCEG 2013 Thermodynamics I **with ELEG 2043 Python for Engr** (**faculty voted to remove Thermodynamics but did not vote on replacing it with Python**)
 - Replace CVEG 2454 Statics & Dynamics with ELEG 4063 Machine Learning for Engr, and a Technical Elective (**we will separate this question and vote on it next time.**)
 - Move ELEG 3063 & 3021 Logic Circuit& Lab to sophomore year (**faculty voted to make the change and change the course number to ELEG 2063 and ELEG 2021**)
- Junior Year
 - Move ELEG 4303 Digital Design to junior year (**faculty voted to make the changes but re-number ELEG 3323??**)
- Add three new technical electives 9 (**faculty voted to add the technical electives**)
 - ELEG 4083 Intro to IoT
 - ELEG 4093 Design Using FPGA's
 - ELEG 4183 Mobile Edge Computing

Notes: Dr. Attia – we need to offer classes where our students can get jobs. Not just the trend.

Recommended adding courses that our students can get jobs in (according to the Computer Engineering Curriculum in ACM).
We should introduce courses in the areas:

- Cybersecurity
- IOT
- Microcontrollers
- Data Science

We should do not duplicate course – Computer engineering course must be different from computer science courses (ELEG 1053 should not be the same as Comp I and Comp II courses – need to add statements with computer engineering applications in the description..

Data Structures covers Python (ELEG 2033)

Other courses: Introduce students to Cybersecurity, add microcontrollers as an elective.

Kumar: Consider entrepreneurship classes as technical electives

Cui: Need Linux and Unix for Python

Kumar: Consider making corrections to the numbering of courses

Poll Vote For CPEG [See votes in notes on previous page.](#)

Notes: Not enough time left to cover. We will cover this next week in our meeting.

EE Curriculum Changes

- Does electrical engineering degree plan require revision?
- Should Thermodynamics MCEG 2013 be removed from the electrical engineering curriculum?
- Should Statics and Dynamics CVEG 2454 be removed from the electrical engineering curriculum. ?
- Should Logic Circuit ELEG 3063 be moved to sophomore year?
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- Should Electronics I ELEG 3043 be moved to Junior first semester?
- Should we change from two technical electives to more technical electives (up to four)?
- Should we make Electronics II ELEG 4043 a technical elective instead of a required course?
- Should we make Field Theory ELEG 4033 a technical elective instead of a required course?

Degree Audits

- NOTES: A list of students will be sent to advisors to conduct degree audits.
- The students are from Cohort 2017. We are seeking ways to graduate them to increase graduation rates. To improve our University and college of engineering ranking.

Next meeting

- **We will send a doodle out to get the best time to meet.**