

THE UNIVERSITY OF WISCONSIN-MILWAUKEE
College of Engineering and Applied Science

FACULTY MEETING

Friday, April 24, 2015 1:45 P.M. EMS E190

AGENDA

I. ANNOUNCEMENTS

- A. Budget Update – Chancellor Mark Mone, Provost Johannes Britz
- B. 2015-16 CEAS Committee Representatives – See Attachment 1

II. INFORMAL REPORTS – See Attachment 2

- A. Opportunity for Questions regarding Informal Reports

III. AUTOMATIC CONSENT BUSINESS

- A. Minutes of March 27, 2015 meeting
- B. Graduation

"The faculty recommends to the Board of Regents those students whose names are submitted by the Office of the Registrar as having completed the requirements for the degree of Bachelor of Science in their respective majors."

IV. SPECIAL ORDER OF BUSINESS -- Nominations

- A. Awards and Recognition Committee

Only members of Civil and Environmental Engineering and Electrical Engineering and Computer Science may be nominated. One member is to be elected.

Continuing members:

Prof. Junhong Chen – Mechanical Engineering
Prof. Jaejin Jang – Industrial Engineering

V. NEW BUSINESS

- A. Modification to Ph.D. in Engineering (from GPSC) – See Attachment 3

VI. GENERAL GOOD AND WELFARE

VI. ADJOURNMENT

John R. Reisel, Secretary
CEAS Faculty

JRR
Attachments

CEAS COMMITTEES FOR 2015-16

	<u>TERM EXPIRES</u>
1) <u>CURRICULUM COMMITTEE</u>	
Professor Ben Church – Materials Science & Engineering	2017
Professor Jaejin Jang – Industrial Engineering	2017
Professor Guangwu Xu – Computer Science	2017
Professor Roshan D’Souza – Mechanical Engineering	2016
Professor Habib Tabatabai – Civil and Environmental Engineering	2016
Professor Weizhong Wang – Electrical Engineering	2016
2) <u>GRADUATE PROGRAM SUBCOMMITTEE</u>	
Professor Robert Cuzner – Electrical Engineering	2017
Professor Wilkistar Otieno – Industrial Engineering	2017
Professor ? – Civil and Environmental Engineering	
Professor Christine Cheng - Computer Science	2016
Professor Chris Yuan - Mechanical Engineering	2016
Professor Hugo Lopez – Materials Science and Engineering	2016
Professor– GFC Representative	
3) <u>ACADEMIC PLANNING COMMITTEE</u>	
Professor Nidal Abu-Zahra – Materials Science & Engineering	2018
Professor Dev Misra – Electrical Engineering	2018
Professor Hector Bravo – Civil and Environmental Engineering	2017
Professor Hossein Hosseini - Computer Science	2017
Professor Hamid Seifoddini – Industrial Engineering	2016
Professor Ryo Amano – Mechanical Engineering	2016
4) <u>SCHOLASTIC APPEALS COMMITTEE</u>	
Professor Mukul Goyal – Computer Science	2017
Professor Jaejin Jang – Industrial Engineering	2017
Professor ? – Mechanical Engineering	
Professor Yi Hu – Electrical Engineering	2016
Professor Changsoo Kim – Materials Science and Engineering	2016
Professor Adeeb Rahman – Civil and Environmental Engineering	2016
5) <u>AWARDS AND RECOGNITION COMMITTEE</u>	
Professor ?	2017
Professor Junhong Chen – Mechanical Engineering	2016
Professor Jaejin Jang – Industrial Engineering	2016

INFORMAL REPORTS

Office of Student Services – Todd Johnson

Below is a comparison of admissions to date for Fall 2015. Here are some highlights:

- Total applications are up at all levels.
- Total applications for new freshmen have already exceeded last year's final number with several months to go before the admissions deadline.
- Freshmen, Transfer and Masters admissions are significantly up.
- Doctoral admits are down.

Comparison of Admissions to Date												
Fall 2015												
As of April 13, 2015												
	Total Applications				Completed Applications				Admitted			
	2014	2015	% Diff	2014 Final	2014	2015	% Diff	2014 Final	2014	2015	% Diff	2014 Final
Freshmen	811	896	10.5%	828	612	648	5.9%	652	504	535	6.2%	540
Transfer	224	276	23.2%	346	121	158	30.6%	242	90	114	26.7%	157
Masters	263	338	28.5%	321	170	215	26.5%	244	64	93	45.3%	169
Doctors	131	134	2.3%	147	91	85	-6.6%	106	58	48	-17.2%	93

Career Services – Juli Pickering

No Report

Curriculum Committee – Prof. Tabatabai

No Report

Graduate Program Subcommittee – Prof. Li

No Report

Academic Planning Committee – Prof. Misra

- 1) The APC has been meeting every month for over two hours. A major part of each meeting was devoted to understanding the CEAS budget status especially in light of upcoming cuts.
- 2) The climate survey will be conducted this semester (Spring 2015) by an outside firm. The plan for this is underway.

Biomedical and Health Informatics – Prof. McRoy

No Report

Faculty Senate – Prof. Reisel

At its April 16 meeting, the Senate heard updates on the budget planning and the university's communication efforts. The Senate also approved the proposal from the APCC to create an undergraduate program review subcommittee. Such a subcommittee will help the APCC process reviews of undergraduate programs on campus in a timely fashion.

In addition, the University Committee is providing more frequent information regarding the budget situation and its other activities at <http://UCNews.uwm.edu>.

Graduate Faculty Committee – Prof. Campbell – Kyureghyan

No Report

Doctor of Philosophy in Engineering

Admission

An applicant must meet [Graduate School](#) requirements plus these College requirements to be considered for admission to the program:

1. Bachelor's or master's degree in engineering or computer science depending on the program area selected.
2. Applicants with B.S. or M.S. degrees outside of engineering or computer science may be admitted with specific program-defined course deficiencies provided that the deficiencies amount to no more than two courses. The student is expected to satisfy deficiency requirements within three enrolled semesters. The deficiencies are monitored by the Graduate School and the individual graduate program unit. No course credits earned in making up deficiencies may be counted as program credits required for the degree. The undergraduate/graduate preparation including mathematics equivalent to ElecEng 234 or Math 234, or the made-up deficiencies must be sufficient to assure the Graduate Program Subcommittee that the applicant is able to proceed with advanced work directed toward the doctoral degree.
3. A grade point average of 3.0 on the basis of 4.0 in highest degree granted. An applicant with a master's degree in engineering having a GPA of less than 3.0, but at least equal to 2.75, may be admitted if substantial evidence can be submitted demonstrating that the applicant has the capacity to perform satisfactory doctoral work.
4. All applicants are required to submit a brief (1 or 2 page) statement describing their professional goals and at least two letters of reference.
5. Applicants with a relevant master's degree who intend to complete an additional master's in engineering at UWM should announce their plans at the time of admission, and not later than the start of their second year into the Ph.D. program.

Reapplication

A student who receives a master's degree at UWM must formally apply for admission to the Graduate School as a doctoral student before continuing studies which will be credited toward the Doctor of Philosophy in Engineering.

Credits and Courses

The minimum degree requirement is 66 graduate credits beyond the bachelor's degree. The minimum credit distribution of coursework to be undertaken must be as follows depending on the option selected.

- 21 credits in the major area of concentration
- 9 credits in an approved minor area
- 6 credits in mathematics and/or quantitative methods
- 18 credits of doctoral thesis
- 9 credits of approved electives
- 3 credits of XXX 700, CEAS Graduate Seminar (XXX can be any CEAS department)

The 6-credit requirement in mathematics and/or quantitative methods may be met by satisfactorily completing certain courses specified by the GPSC or by taking the minor in mathematics. When such courses also count for either the major or the minor area, the remaining credits may be taken as approved electives.

The student must achieve a 3.0 GPA separately in each of the following areas: the major area, the minor area, the quantitative methods area and the required ethics course.

The major area of concentration must be in one of the six areas approved for the Ph.D. degree in the College. These areas are: Civil Engineering, Computer Science, Electrical Engineering, Industrial Engineering, Materials, and Mechanical Engineering. The minor is normally in another area offered in the College or in the physical sciences or mathematics or in management sciences. Consideration of any other area as a minor requires the prior approval of the GPSC.

A minimum of 26 credits, excluding thesis and internship, if applicable, must be at the 700 level or higher.

A minimum of 33 credits, including thesis and internship, when applicable, must be completed while enrolled at UWM in the Ph.D. degree program. For students entering with a relevant master's degree who intend to complete a second master's and a PhD in Engineering at UWM, a minimum of 27 credits, including doctoral dissertation/thesis, must be completed while enrolled in the doctoral program. A maximum of 33 credits of coursework can be considered for transfer credits for prior graduate work including a master's degree earned at UWM or elsewhere provided the coursework taken falls within the appropriate areas.

Students entering the program without a prior applicable master's degree are limited to a total maximum transfer of 9 credits for courses taken elsewhere. Independent study courses (699 and 999) may be included in the minimum course credit requirements provided GPSC approval has been obtained prior to registration in such course. Typically no more than six credits of independent study are allowed in the Ph.D. Program. Guidelines on acceptable independent study courses are available in the CEAS Graduate Studies Office.

The GPSC may require candidates to complete certain courses as part of the requirement for the specific major or to meet the mathematics and/or quantitative methods requirement.

Major Professor as Advisor

The Graduate School requires that the student must have a major professor to advise, supervise, and approve the program of study before registering for courses. The GPSC will assign the incoming student to a temporary Program Advisor at the time of admission. Prior to the completion of 12 credits (9 credits for part-time students), the student must select a major professor who will be the student's thesis advisor. The student in consultation with the major professor develops a proposed program of studies which is submitted to the Graduate Program Subcommittee for approval. For subsequent changes, the student must file a revised program of study for approval.

Internship Elective

Students interested in undertaking an internship may do so by taking not more or less than 6 credits in course 997. Registration for Internship may be used toward meeting the residence requirements. Not more or less than 6 credits of internship will be counted toward the degree.

The internship normally involves a cooperative effort with industry or government agencies where the student is involved actively in advanced professional engineering activities.

Registration in the internship course must be subsequent to passing the Qualifying Examination and submission of an internship proposal outlining the scope and objectives of the activity. The internship proposal must be duly approved by the advisor, the organization where the internship is proposed, the GPSC and the CEAS Associate Dean for Graduate Studies. The College does not guarantee that every student interested in an internship will be placed appropriately. In the absence of suitable placements, students should plan to take other courses to fulfill the degree requirements.

Foreign Language

There is no foreign language requirement for the degree.

Residence

The program residence requirement is satisfied either by completing 8 or more graduate credits in two consecutive semesters, exclusive of summer sessions, or by completing 6 or more graduate credits in each of three consecutive semesters, exclusive of summer sessions.

Qualifying Examination

A qualifying examination must be taken to determine whether the individual is qualified for doctoral-level work. For students entering with a bachelor's degree, this examination, which will be written, may be taken after 18 credits of graduate work have been earned and must be satisfactorily completed before 30 credits of graduate work have been completed. Students admitted after completing an appropriate master's degree *must* take this examination in the semester immediately after 18 credits of graduate course work have been earned at UWM.

The examination will be for a given area, but will also include material on basic engineering principles. The examination will normally be offered twice a year during the regular academic year. A student may take the examination twice; if a passing grade is not obtained on the second attempt the applicant will not be permitted to proceed toward the Doctor of Philosophy degree.

Doctoral Program Committee

The Program Committee is proposed by the major professor in consultation with the department. The Committee is to include at least five graduate faculty (three from major area, one from minor area, and one from another area). Outside members, particularly for those with internships, are desirable. The majority of the Committee members should be from the student's major field.

Doctoral Preliminary Examination

A student is admitted to candidacy only after successful completion of the doctoral preliminary examination conducted by the Program Committee. This examination, which normally is oral, must be taken before the completion of 48 credits of graduate work toward the Doctor of Philosophy degree in Engineering and should be taken within the first seven years in the program. Prior to the examination the student must present a proposal for a doctoral dissertation project. The examination may cover both graduate course material and items related to the proposed dissertation project.

Dissertation

The student must carry out a creative effort in the major area under the supervision of the major professor and report the results in an acceptable dissertation. Registration for dissertation requires successful completion of the doctoral preliminary (Candidacy) examination and prior approval of the student's advisor, the doctoral committee, and the GPSC of a dissertation proposal which outlines the scope of the project, the method of approach, and the goals to be achieved. Any proposal that may involve a financial commitment by the University also must be approved by the Office of the Dean. Total dissertation project registration is for a minimum of 18 credits and any student registering for thesis must continue to register for 3 credits per semester during the academic year until the dissertation is completed.

Dissertation Defense

The final examination, which is oral, consists of a defense of the thesis project. It can only be taken after all coursework and other requirements have been completed.

Time Limit

All degree requirements must be completed within ten years from the date of initial enrollment in the doctoral program.