

UNIVERSITY FACULTY SENATE FORMS

Academic Program Approval

This form is a routing document for the approval of new and revised academic programs. Proposing department should complete this form. A checklist is available to assist in the preparation of a proposal. For more information, call the Faculty Senate Office at 831-2921.

Submitted by: Joshua Hertz phone number x2778

Department: Mechanical Engineering email address hertz@udel.edu

Date: Nov. 15, 2012

Action: revise PHD course requirements
(Example: add major/minor/concentration, delete major/minor/concentration, revise major/minor/concentration, academic unit name change, request for permanent status, policy change, etc.)

Effective term 13F
(use format 04F, 05W)

Current degree PHD
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed change leads to the degree of: PHD
(Example: BA, BACH, BACJ, HBA, EDD, MA, MBA, etc.)

Proposed name: _____
Proposed new name for revised or new major / minor / concentration / academic unit (if applicable)

Revising or Deleting:

Undergraduate major / Concentration: _____
(Example: Applied Music – Instrumental degree BMAS)

Undergraduate minor: _____
(Example: African Studies, Business Administration, English, Leadership, etc.)

Graduate Program Policy statement change: _____
(Must attach your Graduate Program Policy Statement)

Graduate Program of Study: Mechanical Engineering: PHD
(Example: Animal Science: MS Animal Science: PHD Economics: MA Economics: PHD)

Graduate minor / concentration: _____

Note: all graduate studies proposals must include an electronic copy of the Graduate Program Policy Document, highlighting the changes made to the original policy document.

List new courses required for the new or revised curriculum. How do they support the overall program objectives of the major/minor/concentrations)?

(Be aware that approval of the curriculum is dependent upon these courses successfully passing through the Course Challenge list. If there are no new courses enter "None")

None

Supply support letter from the Library, Dean, and/or Department Chair if needed
(all new majors/minors will need a support letter from the appropriate administrator.)

N/A

Supply a resolution for all new majors/programs; name changes of colleges, departments, degrees; transfer of departments from one college to another; creation of new departments; requests for permanent status. See example of resolutions.

N/A

Explain, when appropriate, how this new/revise curriculum supports the 10 goals of undergraduate education: <http://www.ugs.udel.edu/gened/>

N/A

Identify other units affected by the proposed changes:

(Attach permission from the affected units. If no other unit is affected, enter "None")

None

Describe the rationale for the proposed program change(s):

(Explain your reasons for creating, revising, or deleting the curriculum or program.)

According to current course requirements, it is impractical for UD students to receive both the MSME and PhD in mechanical engineering. 19 total classes would be needed to fulfill the requirements for both degrees, with the expectation for both degrees including a number of the "6x0" core classes. Further, a student who takes 800-level courses for the MSME degree may have difficulty in finding a sufficient number of additional, relevant 800-level courses for the PhD. In a similar way, students entering our doctoral program having already completed a Master's degree will likely find much of the required coursework to be repeated from previous work.

At many schools and in most departments with UD's COE, however, it is not uncommon for students to receive both a Master's and Doctoral degree in succession. Indeed, a number of our faculty members have done this. The benefits to allowing our students to take such a path include:

- providing further incentive for high quality MSME students to remain for doctoral work,
- reducing repetitive courseload for PhD students who have already completed graduate coursework in Mechanical Engineering when obtaining a Master's degree,
- increasing the number of degrees received in the department (applicable to departmental ranking), and
- providing doctoral candidates who need to switch advisors or projects the ability to document and obtain recognition of research completed to that point by conferral of the MSME during the PhD program.

University requirements preclude the "double counting" of one course for two degrees. Thus, modifications to the PhD course requirements are suggested such that a portion of the courses equivalent to those applied towards one are waived (subject to approval) for the other. The only courses to be waived are those that specifically fulfill requirements that apply to both degrees. All other requirements for the degrees (including Exams and Theses) would remain the same.

Program Requirements:

(Show the new or revised curriculum as it should appear in the Course Catalog. If this is a revision, be sure to indicate the changes being made to the current curriculum and **include a side-by-side comparison** of the credit distribution before and after the proposed change.) **See example of side by side.**

Existing Course Requirements for the PhD

The Ph.D. program in Mechanical Engineering consists of 33 credits of graduate level course work plus 9 credits of Doctoral Dissertation. The Ph.D. program is designed to allow for considerable flexibility in course selection and specialization of study. Course work must be completed with a cumulative grade point average of 3.0 or higher (see Graduate Catalog for relevant details). In addition, the student must pass the Qualifying Examination, Candidacy Examination and fulfill the teaching requirement prior to completing the dissertation requirements. The Ph.D. should be obtainable in four years of full-time study after entering the program. There is no foreign language requirement for the Ph.D.

I. Course Requirements

- A. At least four courses (12 credits) at the 600 or higher level in Mechanical Engineering (MEEG).
- B. At least three courses (9 credits) at the 800 level.
- C. At least one course (3 credits) in mathematics (other than MEEG690).
- D. At least three semesters of MEEG 600 Seminar (0 credits). Special arrangements can be made for part-time students to fulfill this requirement.
- E. 9 credits of MEEG 969 Doctoral Dissertation.

An individual course can be used to meet more than one of the requirements A, B or C provided the total number of credits is at least 33. MEEG 868 cannot be used toward these requirements.

Students will submit a proposed course plan to the Dissertation Committee at the time of their candidacy exam. Upon approval, it will enter into the candidate's file. Deviations from the proposed plan must be approved by the Dissertation Committee. A copy of the course plan must be sent to the University Office of Graduate Studies.

Proposed Course Requirements for the PhD

The Ph.D. program in Mechanical Engineering consists of 33 credits of graduate level course work plus 9 credits of Doctoral Dissertation. The Ph.D. program is designed to allow for considerable flexibility in course selection and specialization of study. Course work must be completed with a cumulative grade point average of 3.0 or higher (see Graduate Catalog for relevant details). In addition, the student must pass the Qualifying Examination, Candidacy Examination and fulfill the teaching requirement prior to completing the dissertation requirements. The Ph.D. should be obtainable in four years of full-time study after entering the program. There is no foreign language requirement for the Ph.D.

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- A. At least four courses (12 credits) at the 600 or higher level in Mechanical Engineering (MEEG).
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An individual course can be used to meet more than one of the requirements A, B or C provided the total number of credits is at least 33. MEEG 868 cannot be used toward these requirements.

With the written approval of the thesis advisor and of the Graduate Committee, requirements A and C may be fully or partially waived for a student who has been awarded a thesis-based Master's degree in Mechanical Engineering. With similar approval, to the extent that courses at the 800 level (other than MEEG 868 or MEEG 869) were used to satisfy the Master's degree requirements, requirement B may be fully or partially waived. Evidence must be given to show that courses taken for the Master's degree are equivalent to those being

waved. If any course waivers are granted, the total number of course credits required for the PhD will be reduced by the number of credits equivalent to those being waived. Under no circumstances will requirements equivalent to more than 12 credits be waived.

Students will submit a proposed course plan (including any requests for course waivers as described above) to the Dissertation Committee at the time of their candidacy exam. Upon approval, it will enter into the candidate's file. Deviations from the proposed plan must be approved by the Dissertation Committee. A copy of the course plan must be sent to the University Office of Graduate Studies.

ROUTING AND AUTHORIZATION: (Please do not remove supporting documentation.)

Department Chairperson *Alwani* Date Nov 19, 2012
Dean of College *Imade Ogumoniwo* Date DEC 10, 2012
Chairperson, College Curriculum Committee *Langston Burtree* Date Dec 11, 2012
Chairperson, Senate Com. on UG or GR Studies _____ Date _____
Chairperson, Senate Coordinating Com. _____ Date _____
Secretary, Faculty Senate _____ Date _____
Date of Senate Resolution _____ Date to be Effective _____
Registrar _____ Program Code _____ Date _____
Vice Provost for Academic Affairs & International Programs _____ Date _____
Provost _____ Date _____
Board of Trustee Notification _____ Date _____