UNIVERSITY FACULTY SENATE FORMS

Academic Program Approval

Submitted by: Prof Leonard Schwartz, Grad Chair of Mechanical Engineering phone no. 831-6830

Action: Changes to Course Requirements for Mechanical Engineering PhD

Effective term 15F

Current degree: PhD

Proposed change leads to the degree of: PhD (no change)

Proposed name: PhD in Mechanical Engineering (no change)

List program changes for curriculum revisions:

On http://www.ssw.udel.edu/academics/grad/phd.html change item A and B in I. Course Requirements

FROM

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.

TO

A. At least five courses (15 credits) at the 600 or higher level in Mechanical Engineering (MEEG). At least three of these courses shall be selected from the following list:

MEEG 690 Intermediate Engineering Mathematics

MEEG 610 Intermediate Solid Mechanics

MEEG 620 Intermediate Dynamics
MEEG 630 Intermediate Fluid Mechanics

MEEG 640 Intermediate Heat Transfer

MEEG 683 Orthopedic Biomechanics

MEEG 624 Control of Dynamical Systems

B. Five additional graduate-level courses in Engineering, Science or Mathematics (15 credits) of which at least three courses (9 credits) must be at the 800 level.

NOTE: The total number of course credits for the PhD (33 credits) has not been changed.

List new courses required for the new or revised curriculum: None

Other affected units: None

Rationale: To broaden the technical knowledge base of mechanical Engineering PhD graduates.

Program Requirements:

The revised curriculum as it should appear in the Course Catalog.

1. Course Requirements

A. At least five courses (15 credits) at the 600 or higher level in Mechanical Engineering (MEEG). At least three of these courses shall be selected from the following list:

MEEG 690 Intermediate Engineering Mathematics

MEEG 610 Intermediate Solid Mechanics

MEEG 620 Intermediate Dynamics

MEEG 630 Intermediate Fluid Mechanics

MEEG 640 Intermediate Heat Transfer
MEEG 683 Orthopedic Biomechanics

MEEG 624 Control of Dynamical Systems

B. Five additional graduate-level courses in Engineering, Science or Mathematics (15 credits) of which at least three courses (9 credits) must be at the 800 level.

C. At least one course (3 credits) in mathematics (other than MEEG690).

D. At least three semesters of MEEG 660 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.

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 Master’s degree in Mechanical Engineering. With similar approval, to the extent that courses at the 800 level (other than MEEG 868 or MEEG 969) 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 waived. 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 __________________________Date 4/21/2015

Dean of College __________________________Date 5/11/2015

Chairperson, College Curriculum Committee __________________________Date 5/11/2015

Chairperson, Senate Com. on UG or GR Studies __________________________Date