

Date Submitted: 09/09/21 12:20 pm

# Viewing: **MEEGPH : Engineering (Mechanical Engineering), Doctor of Philosophy**

Last edit: 09/16/21 9:17 am

Changes proposed by: chstung

Catalog Pages Using  
this Program

[Mechanical Engineering \(MEEG\)](#)

Submitter: **575-5557**      User ID: **chstung**      Phone:

Program Status      **Active**

Academic Level      Graduate

Type of proposal      **Major/Field of Study**

Select a reason for this modification

Making Minor Changes to an Existing Certificate or Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding/changing Focused Study or Track)

Are you adding a concentration?

**No**

Are you adding or modifying a track?

**No**

Are you adding or modifying a focused study?

**No**

Effective Catalog Year      Fall 2022

College/School Code  
College of Engineering (ENGR)

Department Code  
Department of Mechanical Engineering (MEEG)

## In Workflow

1. ENGR Dean Initial
2. GRAD Dean Initial
3. Director of Curriculum Review and Program Assessment
4. Registrar Initial
5. Institutional Research
6. MEEG Chair
7. ENGR Curriculum Committee
8. ENGR Faculty
9. ARSC Dean
10. ENGR Dean
11. Global Campus
12. Provost Review
13. University Course and Program Committee
14. Graduate Council
15. Faculty Senate
16. Provost Final
17. Registrar Final
18. Catalog Editor Final

## Approval Path

1. 04/21/21 3:43 pm  
Norman Dennis (ndennis): Approved for ENGR Dean Initial
2. 04/21/21 3:55 pm  
Jim Gigantino (jgiganti): Rollback to Initiator

Program Code MEEGPH  
 Degree Doctor of Philosophy  
 CIP Code

3. 08/31/21 1:18 pm  
 Kevin Hall (kdhall):  
 Approved for ENGR  
 Dean Initial
4. 08/31/21 2:01 pm  
 Jim Gigantino  
 (jgiganti): Approved  
 for GRAD Dean  
 Initial
5. 09/02/21 2:49 pm  
 Alice Griffin  
 (agriffin): Rollback  
 to Initiator
6. 09/15/21 3:19 pm  
 Kevin Hall (kdhall):  
 Approved for ENGR  
 Dean Initial
7. 09/15/21 4:03 pm  
 Jim Gigantino  
 (jgiganti): Approved  
 for GRAD Dean  
 Initial
8. 09/16/21 9:19 am  
 Alice Griffin  
 (agriffin): Approved  
 for Director of  
 Curriculum Review  
 and Program  
 Assessment
9. 09/28/21 6:02 pm  
 Lisa Kulczak  
 (lkulcza): Approved  
 for Registrar Initial
10. 09/29/21 9:31 am  
 Doug Miles  
 (dmiles): Approved  
 for Institutional  
 Research
11. 09/30/21 10:00 am  
 Darin Nutter

- (dnutter): Approved for MEEG Chair
12. 10/07/21 1:49 pm  
Manuel Rossetti (rossetti): Approved for ENGR Curriculum Committee
13. 11/05/21 10:10 am  
Kevin Hall (kdhall): Approved for ENGR Faculty
14. 11/08/21 12:01 pm  
Jeannie Hulen (jhulen): Approved for ARSC Dean
15. 11/15/21 4:19 pm  
Kevin Hall (kdhall): Approved for ENGR Dean
16. 11/15/21 4:20 pm  
Suzanne Kenner (skenner): Approved for Global Campus
17. 11/22/21 8:18 am  
Ketevan Mamiseishvili (kmamisei): Approved for Provost Review

14.0101 - Engineering, General.

Program Title

Engineering (Mechanical Engineering), Doctor of Philosophy

Program Delivery

Method

**On Campus**

Is this program interdisciplinary?

**No**

Does this proposal impact any courses from another College/School?

**Yes**

College(s)/School(s)

**College/School Name**

**Fulbright College of Arts and Sciences (ARSC)**

What are the total hours needed to complete the program? **72**

## Program Requirements and Description

### Requirements

**Requirements for the Doctor of Philosophy Degree (Engineering):** Students desiring to pursue a doctoral degree in engineering under the direction of a professor in the Department of Mechanical Engineering must obtain a set of guidelines from the Graduate Coordinator.

Students should also be aware of Graduate School requirements with regard to [doctoral degrees](#).

**After the BSME degree or its equivalent, the student's Schedule of Study must include 42 hours of graded coursework and 30 hours of MEEG 700V dissertation as follows:**

**At least 30 hours at 5000 level or higher and at least 12 hours must be MEEG course**

**At least 6 hours of acceptable mathematics courses selected from the approved list below**

**No more than 6 hours of 4000 level courses which must be taken in the first 30 hours of the program.**

**No more than 3 hours MEEG 592V Individual Study in Mechanical Engineering will be allowed.**

**Approved Math courses: MEEG 4703 Mathematical Methods in Engineering, MATH 4443 Complex Variables, MATH 4503 Differential Geometry, MEEG 5733 Advanced Numerical Methods, PHYS 5073 Mathematical Methods for Physics, STAT 5103 Introduction to Probability Theory, INEG 5263 Engineering Statistics, MATH 5213 Advanced Calculus I, MATH 5223 Advanced Calculus II, MATH 5303 Ordinary Differential Equations, MATH 5313 Partial Differential Equations, MATH 5363 Scientific Computation and Numerical Methods, MATH 5383 Numerical Analysis, MATH 5393 Numerical Linear Algebra, MATH 5423 Introduction to Partial Differential Equations**

Are Similar Programs available in the area?

**No**

Estimated Student Demand for Program **40**

Scheduled Program **2022-2023**

Review Date

Program Goals and Objectives

**Program Goals and Objectives**

The program goals of the Mechanical Engineering graduate program are linked to the mission of the university and college. They are:

1. Prepare students for independent studies in mechanical engineering.
2. Prepare students to contribute new knowledge of fundamental or applied importance.
3. Prepare students to disseminate new knowledge of fundamental or applied importance.

Learning Outcomes

**Learning Outcomes**

1. Students will gain advanced knowledge in mechanical engineering.
2. Students will show proficiency in the foundational topics of mechanical engineering.
3. Students will gain an understanding of their research field to contribute new knowledge.
4. Students will contribute new knowledge of fundamental or applied importance.
5. Students will be able to communicate effectively during oral presentations.
6. Students will be able to communicate effectively in writing.

Description and justification of the request

Description of specific change	Justification for this change
The required math hours is reduced from 12 to 6.	The math hour reduction is intended to lighten the course load of PhD students and allow them to focus more on their research work.
Detailed information related to the Program Requirements and Description is added.	The added information represents the current requirements of the department. Except for the proposed reduction in math hours, these requirements have been the same for a number of years. This information has not appeared in the catalog before.

Upload attachments

Reviewer Comments

**Norman Dennis (ndennis) (04/21/21 3:43 pm):** Remove language limiting MEEG 591V, special topics courses.

**Jim Gigantino (jgiganti) (04/21/21 3:55 pm):** Rollback: All of the green language appears to be new. Could you, in the boxes at the bottom, include a statement indicating that and discuss how this proposal differs from the current requirements that are being used in the department

apart from the change in the math req? I'm assuming this is what is done in practice but has not appeared in the catalog before---if so, please include that statement

**Alice Griffin (agriffin) (09/01/21 1:49 pm):** Changed effective date from fall 2021 to fall 2022. It is too late to complete approval for this fall. Minor program changes become effective the following catalog year.

**Alice Griffin (agriffin) (09/01/21 4:30 pm):** Revised scheduled program review date to match the APS 1620.11 schedule.

**Alice Griffin (agriffin) (09/01/21 4:33 pm):** Hyperlinked MEEG 592V to reflect complete title of course.

**Alice Griffin (agriffin) (09/02/21 2:49 pm):** Rollback: Please change your response to "Does this proposal impact any courses from another college?" to include ARSC, particularly since there are six hours of mathematics courses required. In order for the degree audit system to work and to follow faculty governance over curriculum, please list the eligible math courses in the catalog copy.

**Alice Griffin (agriffin) (09/16/21 9:08 am):** Hyperlinked MATH courses in approved list. Removed MEEG 5003, as the course was deleted at the end of fall 2020. College is encouraged to review the list to determine if it is up-to-date.

**Alice Griffin (agriffin) (09/16/21 9:17 am):** Changed second bullet from ...in the MEEG graduate manual..to...in the approved list below. College is encouraged to review.

Key: 249