

Program Change Request

Date Submitted: 11/15/17 9:35 am

Viewing: **BENGPB : Biological Engineering,**

Doctor of Philosophy

Last approved: 05/24/17 11:27 am

Last edit: 01/03/18 4:11 pm

Changes proposed by: lpate

Catalog Pages Using
this Program

[Biological and Agricultural Engineering \(BAEG\)](#)

Submitter: User ID: lpate Phone:
575-6731

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 Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding Focused Study)

Are you adding a concentration?

No

Are you adding a track?

No

Are you adding a focused study?

No

Effective Catalog Year Fall 2018

College/School Code

College of Engineering(ENGR)

In Workflow

1. ENGR Dean Initial
2. GRAD Dean Initial
3. Director of Program Assessment and Review
4. Registrar Initial
5. BAEG Chair
6. ENGR Curriculum Committee
7. ENGR Faculty
8. ENGR Dean
9. Global Campus
10. Provost Review
11. University Course and Program Committee
12. Graduate Committee
13. Faculty Senate
14. Provost Final
15. Provost's Office-- Notification of Approval
16. Registrar Final
17. Catalog Editor Final

Approval Path

1. 10/24/17 3:26 pm
Norman Dennis (ndennis): Rollback to Initiator
2. 10/27/17 3:29 pm
Norman Dennis (ndennis): Rollback

Department Code

- to Initiator
3. 11/07/17 10:39 am
Norman Dennis
(ndennis): Rollback
to Initiator
 4. 11/10/17 10:56 am
Norman Dennis
(ndennis): Approved
for ENGR Dean
Initial
 5. 11/10/17 4:52 pm
Patricia Koski
(pkoski): Approved
for GRAD Dean
Initial
 6. 11/14/17 11:28 am
Alice Griffin
(agriffin): Rollback
to Initiator
 7. 11/15/17 10:43 pm
Norman Dennis
(ndennis): Approved
for ENGR Dean
Initial
 8. 11/16/17 9:11 am
Patricia Koski
(pkoski): Approved
for GRAD Dean
Initial
 9. 11/16/17 10:07 am
Alice Griffin
(agriffin): Approved
for Director of
Program
Assessment and
Review
 10. 11/21/17 5:53 pm
Lisa Kulczak
(lkulcza): Approved
for Registrar Initial

11. 11/22/17 8:26 am
Lalit Verma
(lverma): Approved
for BAEG Chair
12. 12/13/17 2:37 pm
Manuel Rossetti
(rossetti): Approved
for ENGR
Curriculum
Committee
13. 12/13/17 2:52 pm
Norman Dennis
(ndennis): Rollback
to BAEG Chair for
ENGR Faculty
14. 12/20/17 3:18 pm
Lalit Verma
(lverma): Approved
for BAEG Chair
15. 12/20/17 3:47 pm
Manuel Rossetti
(rossetti): Approved
for ENGR
Curriculum
Committee
16. 01/03/18 4:12 pm
Norman Dennis
(ndennis): Approved
for ENGR Faculty
17. 01/03/18 4:19 pm
Norman Dennis
(ndennis): Approved
for ENGR Dean
18. 01/08/18 12:37 pm
Kiersten Bible
(kbible): Approved
for Global Campus
19. 01/08/18 1:01 pm
Terry Martin
(tmartin): Approved

- for Provost Review
 20. 01/29/18 9:39 am
 Alice Griffin
 (agriffin): Approved
 for University
 Course and Program
 Committee
 21. 02/28/18 1:45 pm
 Patricia Koski
 (pkoski): Approved
 for Graduate
 Committee

History

1. May 24, 2017 by
 Charlie Alison
 (calison)

Department of Biological and Agricultural Engineering(BAEG)

Program Code BENGPH

Degree Doctor of Philosophy

CIP Code
 14.0101 - Engineering, General.

Program Title
 Biological Engineering, Doctor of Philosophy

Program Delivery

Method

On Campus

Is this program interdisciplinary?

No

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

No

What are the total **78**
 hours needed to
 complete the
 program?

Program Requirements and Description

Requirements

Requirements for the Doctor of Philosophy Degree: (Minimum 78 hours). In addition to the requirements of the Graduate School, the department follows the College of Engineering's requirements with an additional requirement:

Students entering directly with an engineering B.S. degree: All students must complete a minimum of 78 semester hours of graduate-level credit beyond the engineering bachelor's degree, including a minimum of 48 semester hours of course work and a minimum of 30 semester hours of dissertation research credits. **Of the 78 hours required for the Ph.D. degree, up to 12 semester hours of 4000-level courses may be taken in the first** ~~A minimum of 30 semester hours of semester hours of~~ **course work. The remaining credits (minimum of 66 semester hours, 36 semester hours of coursework and 30 semester hours of dissertation)** ~~work must be be at the 5000 the graduate-level (5000 or above. above).~~

Students entering with a master's degree: Upon recommendation of the student's advisory committee, a student who has entered the Ph.D. program after a master's **degree may** ~~degree in engineering may~~ receive credit for up to 30 semester **hours toward the required 78 credit** hours. If the 30 hours includes master's thesis research, the advisory committee may credit up to 6 hours of thesis research toward the minimum dissertation research **requirement. All subsequent coursework presented for the PhD degree must be at the 5000 level or above.** ~~requirement.~~

Students with a non-engineering B.S. degree: **In addition to the requirements in 1 and 2 above, students must complete 18 hours of deficiency engineering course work to demonstrate engineering competence.** Complete a minimum of nine semester credit hours of coursework in a set of coherent courses in a related subject area approved by the student's advisory committee.

Earn a minimum cumulative grade-point average of 3.0 on all graduate courses attempted. The minimum acceptable grade on a graduate course is "C."

Satisfactorily pass a preliminary examination (Note that the Engineering College defines this examination as a qualifying examination).~~The purpose of the preliminary exam is to measure a candidate's core competency and depth in a narrowly focused area of specialization sufficient to understand and advance the current state-of-the-art research. After completing the Ph.D. course requirements and at least six months before completing the Ph.D. proposal defense requirement, the prospective candidate must take the preliminary examination. Preliminary exam will be given by the student's advisory committee.~~ **After completing the course requirements the prospective candidate must take the** ~~Students may retake a failed~~ preliminary **examination. Students may retake a failed preliminary** exam once, contingent upon approval of ~~the~~ **the** student's advisory committee. A student who fails the preliminary examination twice will be terminated from the program.

~~Satisfactorily pass a Ph.D. proposal defense. The purpose of the dissertation proposal defense is to assure that the candidate's plans of researching their proposed dissertation research questions are complete and holds~~

~~academic and scientific merits. All Ph.D. Satisfactorily pass students are required to present a written and an oral proposal defense. The prospective candidate must present the dissertation research proposal to the to their advisory committee for the purpose of defining their research program at least 6 months after completing the preliminary examination, and at least one year before completing all other requirements. the Ph.D. preliminary examination, and at least one year before completing all other requirements.~~ Students may retake a failed proposal defense once, contingent upon approval of the student's advisory committee. A student who fails the proposal defense twice will be terminated from the program.

Satisfactorily pass a final comprehensive oral examination and complete and submit a dissertation.

Candidates must prepare a paper suitable for submission to a refereed journal from research done for a dissertation.

Detailed requirements are in the Biological and Agricultural Engineering Department Graduate Student Handbook, available at bio-ag-engineering.uark.edu.

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

Are Similar Programs available in the area?

No

Estimated Student Demand for Program NA

Scheduled Program **2018-2019 NA**

Review Date

Program Goals and Objectives

Program Goals and Objectives

1. Prepare students for independent research to contribute new scientific knowledge of fundamental importance to the fields of Biological Engineering.
2. Contribute new knowledge of fundamental importance or significantly modify, amplify, or interpret existing knowledge in a new and important manner.

NA

Learning Outcomes

Learning Outcomes

1. Students will make satisfactory progress toward the completion of course requirements in preparation for independent research to contribute new and fundamentally important knowledge to Biological Engineering.
2. Students will be prepared for independent research in Biological Engineering.
3. Students will be prepared to contribute new and fundamentally important knowledge to Biological Engineering.

Learning Outcomes

- 4. Students will contribute new and fundamentally important knowledge to Biological Engineering or significantly modify, amplify, or interpret existing knowledge in a new and important manner.**
- 5. Students will be able to communicate effectively in a professional, scientific setting.**

NA

Description and justification of the request

Description of specific change	Justification for this change
Adding the requirement to produce a journal quality paper. Clarifying the number of 4000 level credit hours that can be used in the degree. Removing administrative details of the examinations.	Reduce the verbiage in the catalog and refer students to the departmental graduate student handbook for administrative details. While the details may change from time to time, the program requirements themselves will not change. Align the use of 4000 level courses with ADHE requirements.

Upload attachments

Reviewer Comments

Norman Dennis (ndennis) (10/24/17 3:26 pm): Rollback: You at adding the requirement for creation of a journal quality paper, not clarifying requirements. Provide a reasonable justification for this new requirement.

Norman Dennis (ndennis) (10/27/17 3:29 pm): Rollback: You are adding a requirement to your PhD program. State the exact change in the description of change box. This change is not a clarification.

Norman Dennis (ndennis) (11/07/17 10:39 am): Rollback: Under new graduate school policy no coursework presented for a PhD can be 4000 level or below. The only exception is going from BA to PhD, in that case up to 12 hours (50% of course work allowed for an MS) of coursework could be 4000 level, but it must be taken during the first 30 hours of the program. if going from MS to PhD all coursework must be 5000 level or above. Bullet 2 in your program requirements potentially violates this policy. Plus the only change I see in your requirements is the requirement to produce a publishable article, not all of the other changes you describe. Please modify your coursework language in the program requirements.

Norman Dennis (ndennis) (11/10/17 10:56 am): Added the requirement for all coursework to be at the 5000 level for MS to PhD. Revised description and justification of change.

Alice Griffin (agriffin) (11/14/17 11:28 am): Rollback: Please review item 2 of requirements. The Graduate School no longer allows the use of 4000-level courses toward graduate programs. Thus, the description and justification will also need to be changed. Consult with Dr. Dennis regarding this new policy.

Alice Griffin (agriffin) (11/16/17 10:06 am): Inserted scheduled program review date.

Norman Dennis (ndennis) (12/13/17 2:52 pm): Rollback: Bullet 2 in the requirements applies only to students who are going from BS to PhD. Please state that.

Norman Dennis (ndennis) (01/03/18 4:11 pm): Modified language in the requirements section

Key: 276