

New Program Proposal

Date Submitted: 10/09/23 9:06 am

Viewing: **BIOMGM : Biologics Manufacturing**

Graduate MicroCertificate

Last edit: 04/02/24 2:56 pm

Changes proposed by: rbeitle

| | | |
|--------------------------------------|---|--------|
| Submitter: 575-7566 | User ID: rbeitle | Phone: |
| Program Status | Active | |
| Academic Level | Graduate | |
| Type of proposal | MicroCertificate | |
| Select a reason for this new program | Adding New Graduate MicroCertificate | |
| Effective Catalog Year | 08152024 | |
| College/School Code | College of Engineering (ENGR) | |
| Department Code | Department of Chemical Engineering (CHEG) | |
| Program Code | BIOMGM | |
| Degree | Graduate MicroCertificate | |
| CIP Code | | |

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. CHEG Chair
7. ENGR Curriculum Committee
8. ENGR Faculty
9. ENGR Dean
10. Global Campus
11. Provost Review
12. Graduate Council
13. Faculty Senate
14. Provost Final
15. Registrar Final
16. Catalog Editor Final

Approval Path

1. 10/10/23 4:10 pm
Kevin Hall (kdhall):
Approved for ENGR
Dean Initial
2. 10/11/23 8:02 am
Ed Bengtson
(egbengts):
Approved for GRAD
Dean Initial
3. 11/07/23 11:06 am
Lisa Kulczak
(lkulcza): Approved
for Director of
Curriculum Review

- and Program
Assessment
4. 11/08/23 7:40 am
Gina Daugherty
(gdaugher):
Approved for
Registrar Initial
 5. 11/27/23 2:57 pm
Doug Miles
(dmiles): Approved
for Institutional
Research
 6. 04/02/24 2:56 pm
Keisha Walters
(keishaw): Approved
for CHEG Chair
 7. 04/09/24 5:06 pm
Manuel Rossetti
(rossetti): Approved
for ENGR
Curriculum
Committee
 8. 04/10/24 9:05 am
Kevin Hall (kdhall):
Approved for ENGR
Faculty
 9. 04/10/24 1:18 pm
Kevin Hall (kdhall):
Approved for ENGR
Dean
 10. 04/10/24 1:20 pm
Suzanne Kenner
(skenner): Approved
for Global Campus
 11. 04/10/24 2:33 pm
Jim Gigantino
(jgiganti): Approved
for Provost Review
 12. 04/18/24 5:31 pm
Ed Bengtson
(egbengts):

Approved for
Graduate Council

26.1201 - Biotechnology.

Program Title

Biologics Manufacturing Graduate MicroCertificate

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 hours needed to complete the program? 9

Program Requirements and Description

Requirements

Requirements for the Biologics Manufacturing MicroCertificate:

Select three courses from the following list:

9

[CHEG 55103](#) Biochemical Engineering Fundamentals

[CHEG 50103](#) Membrane Separation and System Design

[BMEG 52503](#) Biologics: Next Generation Therapeutics and Their Purification

[BMEG 52203](#) Genome Engineering and Synthetic Biology

Total Hours

9

Program Costs

No additional costs - we teach these courses already.

Library Resources

No additional resources are needed.

Instructional

Facilities

Standard classroom resources are needed.

Faculty Resources

No additional resources are needed.

List Existing Certificate or Degree Programs that Support the Proposed Program

| Program(s) |
|--|
| CHEGPH - Engineering (Chemical Engineering), Doctor of Philosophy |
| BMEGPH - Engineering (Biomedical Engineering), Doctor of Philosophy |
| CHEGMS - Chemical Engineering, Master of Science in Chemical Engineering |
| BMEGMS - Biomedical Engineering, Master of Science in Biomedical Engineering |

Are Similar Programs available in the area?

No

Estimated Student Demand for Program 15

Scheduled Program Review Date n/a

Program Goals and Objectives

Program Goals and Objectives

By participating in the certificate program, students will develop high levels of proficiency in biochemistry, biochemical engineering principles, and bioprocessing techniques necessary for biologics manufacturing.

Learning Outcomes

Learning Outcomes

Learning Outcomes:

Students will be able to describe the fundamental concepts, principles, theories and technologies used in pharmaceutical manufacturing, with an emphasis on biologics.

Learning Outcomes

Students will be able to apply the principles to the design of new biologics manufacturing that are based on platform and developing technologies.

Students will be able to differentiate between biologics manufacturing and traditional (small molecule) pharmaceutical manufacturing.

Description and Justification for this request

| Description of request | Justification for request |
|--|---|
| Request being made on behalf of the faculty involved in biologics manufacturing across the university. | <p>Employment trends in the biopharmaceutical sector is expected to rise nationally, and specific to the State of Arkansas aligns with business initiatives and the state Science and Technology Plan.</p> <p>The National Science Foundation Track 2 grant to the University of Arkansas, University of Kentucky, and Clemson University described, as one of its workforce development goals, the offering of a graduate certificate at each institution.</p> |

Upload attachments

Reviewer Comments

Lisa Kulczak (lkulcza) (11/01/23 6:08 pm): Updated requested effective date, next scheduled program review, and proposed program code.

Lisa Kulczak (lkulcza) (11/07/23 9:32 am): Proposed Program Code for the new MicroCertificate in consultation with the Registrar's Office and formatted required courses into a course list with appropriate heading. College is encouraged to review.

Lisa Kulczak (lkulcza) (11/07/23 9:35 am): ATTENTION REGISTRAR: Please remove Undergraduate Council from the workflow.

Gina Daugherty (gdaugher) (11/08/23 7:40 am): Removed Undergraduate Council from workflow.