

ATTACHMENT 1B

Academic Policy Series

1622.20A

ADD, CHANGE OR DELETE UNIT, PROGRAM REQUIREMENTS, OR ACADEMIC POLICIES

Complete this form consistent with the instructions in Academic Policy 1622.20. Use the form to add, change, or delete a program or unit or to change program policies. Proposed additions and changes must be consistent with Academic Policies 1100.40 and 1621.10 and any other policies which apply.

SECTION I: Approvals

Department / Program Chair Date Submitted Graduate Council Chair Date
College Dean Date Faculty Senate Chair Date
Honors College Dean Date Provost Date
Core Curriculum Committee Date Board of Trustees Approval/Notification Date
University Course and Programs Committee Date Arkansas Higher Education Coordinating Board Approval/Notification Date

SECTION II: Profile Data - Required Information and Name Change Information

Academic Unit: [X] Major/Field of Study [] Minor [] Other Unit [] Policy
Level: [X] Undergraduate [] Graduate [] Law Effective Catalog Year 2012

Program changes are effective with the next available catalog. See Academic Policy Series 1622.20

Current Name

College, School, Division ENGR

Department Code BMEG

Current Code (6 digit Alpha)

Proposed Code (6 digit Alpha)

Prior approval from the Office of the Registrar is required.

[] Interdisciplinary Program

CIP Code

Prior assignment from Office of Institutional Research is required.

Proposed Name Department of Biomedical Engineering

When a program name is changed, enrollment of current students reflects the new name.

SECTION III: Add a New Program/Unit

[X] For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE
http://www.adhe.edu/divisions/academicaffairs/Pages/academicaffairs.aspx

[] Program proposal uses courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here:

SECTION IV: Eliminate an Existing Program/Unit

Code/Name Effective Catalog Year

No new students admitted to program after Term: Year:

Allow students in program to complete under this program until Term: Year:

SECTION V: Proposed Changes to an Existing Program or Program Policies

Insert here a statement of the exact changes to be made:

Check if either of these boxes apply and provide the necessary signature:

- Program change proposal adds courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____
- Program change proposal deletes courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: _____

Check all the boxes that apply and complete the required sections of the form:

- Change of Name and Code (Complete only sections I, II, V and VII.)
- Change Course Requirements: (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change Delivery Site/Method (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change Total Hours (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change in Program Policies

SECTION VI: Justification

Justify this change and state its likely effect on any other degree program (including those outside the school or college). Identify any program or program components (other than courses) to be eliminated if this program is implemented. (Program and course change forms must also be submitted for such related changes.)

Biomedical Engineering is a field at the interface of engineering, medicine and biological sciences. It combines the practical problem solving ability of engineering to diagnostic, monitoring, and therapy needs of medical sciences. Even though engineers have designed medical devices for a long time, Biomedical Engineering has only been established as a discipline within the past two decades.

The evolution of academic disciplines often follows the sequence of first being a multi-disciplinary program evolving into an interdisciplinary program and then becoming a discipline in itself with a variety of sub-disciplines. Biomedical Engineering has followed that path and is now widely recognized as a separate discipline within engineering. In the United States, an undergraduate degree in Biomedical Engineering is offered at 99 universities of which three are in the SEC, but none in Arkansas. The SEC schools offering Biomedical Engineering include the University of Tennessee, University of South Carolina and Vanderbilt.

The Biomedical education and research at the University of Arkansas is currently embedded within the department of Biological and Agricultural Engineering which reports to both the College of Engineering and to the Dale Bumpers College of Agriculture and Food and Life Sciences. Undergraduate students have the opportunity to choose Biomedical Engineering as a concentration within a BS degree in Biological Engineering. This stream produces approximately ten such graduates per year. A MS degree in Biomedical Engineering was initiated in 2004 and was accredited by ABET (the national engineering accreditation board) in 2009. The number of graduates in this program range from two to three per year. Doctoral students can choose Biomedical Engineering as a research area but their degree is recognized within the Biological Engineering PhD concentration.

The numbers of graduates at all degree levels with biomedical concentration at the University of Arkansas have been much lower than the national averages. In the past ten years, enrollments at the national level in Biomedical Engineering programs have increased by more than 200% while the overall engineering enrollment increases during the same period have only been at the level of approximately 20%. Similar impressive increases in students have also occurred at the MS and PhD levels. Significantly larger numbers of female students and faculty are attracted to this discipline because of the exciting career opportunities in the health care field. The time is right for the University of Arkansas to re-examine its position on Biomedical Engineering and develop stand-alone degrees at all levels (BS, MS and PhD). This proposal is for creating a new Department of Biomedical Engineering. There are parallel proposals for creating a new undergraduate major in Biomedical Engineering and a new doctoral concentration in Biomedical Engineering within the existing PhD degree in Engineering. These two new degree programs will complement the existing MS degree and thereby create exciting educational opportunities in Biomedical Engineering for Arkansans at all levels.

SECTION VII: Catalog Text and Format

In the box below, insert the current catalog text which is to be changed, with changes highlighted with the color yellow. Include all proposed changes identified in Section V. Only changes explicitly stated in Section V will be considered for approval by the University Course and Programs Committee, the Graduate Council and the Faculty Senate. If you are proposing a new program, give proposed text with all of the elements listed below. If you are proposing modified text, include these elements as appropriate.

Include the following elements, in order, in the catalog text for proposed undergraduate program(s) or program changes:

- State complete major/program name
- Briefly define or describe the major/program or discipline.
- Identify typical career goals or paths for graduates. (Optional)
- State admission requirements (if any) for entry or entry into upper/advanced level of major/program.
- Identify location in catalog of university, college/school, and department/program requirements which the student must meet in addition to hours in the major, but do not restate these requirements.
- State course requirements in the major and any allied areas, giving number of hours and specific courses; specify electives or elective areas and give numbers of hours and courses in elective pools or categories; identify any other course requirements.
- State any other requirements (required GPA, internship, exit exam, project, thesis, etc.).
- Identify name and requirements for each concentration (if any).
- Specify whether a minor or other program component is allowed or required and provide details.
- State eight-semester plan requirements

For minors, state requirements in terms of hours, required courses, electives, etc.

For graduate program/units, include elements (as needed) parallel to those listed for undergraduate programs above.

For Law School program/units, prepare text consistent with current catalog style.

For centers, prepare text consistent with current catalog style.

SECTION VIII: Action Recorded by Registrar's Office

PROGRAM INVENTORY/DARS

PGRM _____ SUBJ _____ CIP _____ CRTS _____

DGRE _____ PGCT _____ OFFC&CRTY VALID _____

REPORTING CODES

PROG. DEF. _____ REQ. DEF. _____
 Initials _____ Date _____

Distribution

Notification to:
 (1) College (2) Department (3) Admissions (4) Institutional Research (5) Continuing Education (6) Graduate School
 (7) Treasurer (8) Undergraduate Program Committee