



To: Randy Smith, Vice Provost for Academic Programs, Office of Academic Affairs
From: Cory Matyas, Assistant Dean for Curriculum and Assessment
Date: September 1, 2026

The Department of Biomedical Engineering proposes updating the curriculum sheet to reflect permitted overlap between the Health and Wellbeing GE Theme and non-engineering Career Electives, resulting in a 127-credit minimum. The proposal also allows PHYSIO 3200 as a substitute for BIOMEDE 2800 and adds EEOB 4840 and MICROBIO 4800 to the non-engineering Career Course list, increasing flexibility for students pursuing pre-health pathways and biotechnology interests.

The department requests that this change is effective immediately.

The Engineering College Committee on Academic Affairs met on September 1, 2026 and reviewed this proposal as an informational item. There were no questions or concerns and a College-level record of support for this proposal was created.

Please find details attached.

TBD

College Committee for Academic Affairs (CCAA)

We are writing to request that the CCAA consider the proposed changes to the curriculum for the Department of Biomedical Engineering (BME) outlined in detail below. The proposed changes reflect the overlap that is already allowed between the Health and Wellbeing Theme in the General Education and the non-engineering Career Electives in the BME major. Also these changes will increase flexibility for students in selecting an Anatomy Course as part of our curriculum and adds more non-engineering Career Courses/Technical Electives in the BME major.

Please let us know if you have any questions or need any additional information.

Sincerely,

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Proposal for modifying the BME curriculum

The following changes to BME Career Courses:

1. Update the credit hours on the curriculum sheet to reflect the allowable double counting of Health and Wellbeing Theme classes with the non-engineering Career Electives in the major. (see updated curriculum sheet below)
2. Add Physiology 3200: Human Physiology (5cr.) as an allowable substitution for the 3-cr. BME 2800 anatomy class. Physio is a pre-req for pre-dental, pre-optometry, pre-pharm, and pre-vet students and many [professional schools](#) around the country.
3. Add the following courses to the non-engineering Career Course list.
 - a. EEOB 4840 – Biodiversity Biotechnology
 - b. Microbiology 4800 - Advances in Microbial Biotechnology

Proposed change to Anatomy substitution to be programmed into Buckeye Degree Planner

BIOMEDE 2800 or Anatomy course	
fulfill any	
1 Exception	
☐	BIOMEDE 2800 Anatomy for Engineers
☐	ANATOMY 2300 Human Anatomy
☐	ANATOMY 2300.01 Human Anatomy
☐	ANATOMY 3300 Advanced Human Anatomy
☐	ANATOMY 3300.01 Advanced Human Anatomy
☐	ANATOMY 3300.02 Advanced Human Anatomy
☒	PHYSIO 3200 Human Physiology

Bachelor of Science Biomedical Engineering

Students in this major will complete a minimum of 131 hours outlined as follows.

General Education Requirements		
Requirement	Course Options	Hours
GE Launch Seminar	GENED 1201	1
Foundations: Writing and Information Literacy ^a	<i>Student Choice</i>	3
Foundations: Mathematical & Quantitative Reasoning/Data Analysis ^a	<i>Student Choice*</i>	0-5
Foundations: Literary, Visual and Performing Arts ^a	<i>Student Choice</i>	3
Foundations: Historical & Cultural Studies ^a	<i>Student Choice</i>	3
Foundations: Natural Science ^a	<i>Student Choice*</i>	0-5
Foundations: Social & Behavioral Sciences ^a	<i>Student Choice</i>	3
Foundations: Race, Ethnic and Gender Diversity ^a	<i>Student Choice</i>	3
Theme: Citizenship for a Diverse & Just World ^b	<i>Student Choice</i>	4
Theme: Student Choice ^b	<i>Student Choice</i>	0-4
GE Reflection	Capstone**	Embedded into Major Core Capstone
Total		20-34

College / Degree Requirements ^{a, b}		
Requirement	Course Options	Hours
MATH 1151*, 1172*, (Math & Quantitative Reasoning / Data Analysis)		10
PHYSICS 1250* (Nat Sci)		5
ENGR 1181.0x, 1182.0x		4
ENGR 1100.01		1
Total		20

^a Some coursework required by the major or college may satisfy GE requirements. Please add an asterisk to "student choice" for any GE category where that category can be satisfied by a required course. Please indicate in parentheses following the course listing within College/Degree requirements or Major Coursework what GE category the course satisfies (e.g., "Biology 1113 (Nat Sci)" in the Major Core for programs that require this as a prerequisite to major coursework). There is no limit to the number of courses that may overlap between the GE Foundations and the rest of the academic program

^b Students complete either a 4-credit course or two 3-credit courses in each of two General Education Theme areas: Citizenship for a Diverse & Just World (required), and the student's choice of available GE Themes. If major-required courses are approved as a GE Theme course, one course in each GE Theme area may double count in the GE and major hours. Theme courses are identified with a ❖ symbol.

* These courses are can also fulfill certain GE Requirements above (may be degree requirements, pre- or co-requisites, or major courses).

Major Coursework ^{a, b}		
Course	Title	Hours
Major Core		
BIOMEDE 2000	INTRO TO BME	3
BIOMEDE 2001	PROFESSIONAL DEVELOPMENT	1
BIOMEDE 2200	CELLS & MOLECULES	3
BIOMEDE 2700	NUMERICAL SIMULATIONS IN BME	2
BIOMEDE 2800	ANATOMY FOR ENGINEERS	3
BIOMEDE 3701	BME LAB	2
BIOMEDE 3702	MEASUREMENT & INSTRUMENTATION LAB	3
BIOMEDE 3703	QUANTITATIVE PHYSIOLOGY	3
BIOMEDE 4901	SENIOR CAPSTONE DESIGN I	3
BIOMEDE 4902**	SENIOR CAPSTONE DESIGN II	3
BIOMEDE DOMAIN	TOPICS VARY, STUDENT SELECTS 3	9
Total		35
Required Non-Major General Courses		
CHEM 1210	GENERAL CHEMISTRY I	5
CHEM 1220	GENERAL CHEMISTRY II	5
MATH 2173	ENGINEERING MATH B	3
MATH 2174	LINEAR ALGEBRA & DIFFERENTIAL EQUATIONS	3
BIOLOGY 1113	BIOLOGICAL SCIENCES: ENERGY TRANSFER AND DEVELOPMENT	4
MECHENG 2040	STATICS AND INTRODUCTION TO MECHANICS OF MATERIALS	4
STAT 3450.0X	BASIC STATISTICS FOR ENGINEERS	2
MATSCEN 2010	INTRO TO ENGINEERING MATERIALS	3
MECHENG 3500	ENGINEERING THERMAL SCIENCES	3
PHYSICS 1251	E&M, WAVES, OPTICS, MODERN PHYSICS	5
Total		37
Required Technical / Directed / Targeted Electives; Career Courses		
CAREER COURSE		6
ENGR CAREER COURSE		6
BIOMEDE 5XXX CAREER COURSE		3
Total		15

General Education	20-34
College / Degree	20
Major Core	35
Required Non-Major	37
Technical / Directed / Targeted Electives; Career Courses	15
Minimum Total Credit Hours for Degree	127