

Biomedical Engineering Curriculum Degree Audit

Name			
Student ID			
Email			
Classification	First Year	Sophomore	Junior Senior
Expected Graduation:	Year	Semester	Spring Fall Summer
2nd major?	Minor(s)		Pre-Med
Study Abroad or Co-ops?	If yes, please provide dates and details:		
Yes No	Class	Semester	

Schedule Plan for: Fall	Spring
Courses	Credits

Schedule Plan for Summer I	
Course	Credits
Schedule Plan for Summer II	

List any classes you plan to take at NC State in the upcoming semester

Class	Section	Approved as a Substitute for	Fall/Spring/Summer	NC State ID #

I have discussed my schedule and progress towards a degree with an adviser. I will register for the courses listed for the next semester. I have also discussed my degree audit and Plan of Work with an adviser and understand what courses I must take to complete the requirements for a degree.

Student's Signature _____ Date _____ Adviser's Signature _____ Date _____

*If for any reason you do not register for the courses shown on this plan for the next semester, we expect you to return and file an amended plan with your adviser. You may obtain the form from your adviser or from the Student Services Specialist.

Undergraduate Biomedical and Health Sciences Engineering Curriculum University of North Carolina at Chapel Hill

Students may declare the Biomedical and Health Sciences Engineering major as early as their first year. Admission to the university does not guarantee admission to the program. Students will apply for admission to the program in the fall, spring or summer of their first year. Rising juniors may also apply, but admission to rising juniors will only be granted on a limited basis if space is available. Students who are not accepted to the program must select a different major.

In order to apply to the program, students must complete or receive credit (transfer, AP or IB) for five core courses (see notes 2 and 3 below). Students should apply during the fall, spring or summer of your first year. More information about this process is available on the department Web site, <https://bme.unc.edu/home/undergraduate/undergraduate-admissions/>

First year

			Completed- ✓	Or plan to take:
MATH	231	Calculus of Functions of One Variable ²		
MATH	232	Calculus of Functions of One Variable II ²		
PHYS	116/118	Mechanics/Introductory Calculus-based Mechanics and Relativity ²		
CHEM	101/101L	General Descriptive Chemistry I and Quantitative Chemistry Lab I ²		
BIOL	101/101L	Principles of Biology with Lab		
ENGL	105 /105I	English Composition and Rhetoric ³		
		Foreign Language 3		

1. Strongly recommended, but not required. Course provides an introduction to biomedical engineering tools and topics and information about the curriculum.
2. Students must earn a C or better in this course in order to apply for the major.
3. Students must earn a C- or better in this course in order to apply for the major.

Sophomore year

Fall or Spring:

			Completed-✓	Or plan to take:
BMME	298	BME Design and Manufacturing I		
MATH	233	Calculus of Functions of Several Variables		
MATH	383/383L	Linear Algebra and Differential Equations		
PHYS	117/119	Electromagnetism and Optics		
CHEM	102/102L	General Descriptive Chem and Lab		
CHEM	261	Intro to Organic Chemistry I		
COMP	116	Introduction to Scientific Programming (BMME 201 MATLAB for Scientists and Engineers, offered in summer session I, may substitute for this class)		

Fall/Spring:

BMME	205 (160/215L)	BME Mechanics		
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Spring only:

BMME	209 (150/219L)	BME Material Science		
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Junior year**Fall or Spring:**

	Course #		Completed-✓	Or plan to take:
BMME	398	BME Design and Manufacturing II		
BMME		Gateway Elective 1		
BMME		Gateway Elective 2		
BMME		Gateway Elective 3		
		STEM (Advised) Elective		
Student take three gateway electives to meet the pre-requisites for 2 specialization areas				

BME Gateway electives offered in the fall:

- BMME 335: Biomaterials
- BMME 345: Biomedical Solid Mechanics
- BMME 355: Biocontrols
- BMME 375: Biomedical Microcontroller Applications

BME Gateway electives offered in the spring:

- BMME 315: Biotransport
- BMME 325: Biochemistry for Biomedical Engineers
- BMME 365: Linear Systems in Biomedical Engineering
- BMME 385: Bioinstrumentation

Fall only:

BMME	207	Fundamentals of Biomedical Electronics		
BMME	302	Human Physiology: Mechanical Analysis		

Spring only:

BMME	301	Human Physiology: Electrical Analysis		
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Senior year

Fall or Spring:

	Course #		Completed-✓	Or plan to take:
		BME Specialty Elective 1		
		BME Specialty Elective 2		
		BME Specialty Elective 3		
		BME Specialty Elective 4		
A specific list of Specialty Electives, with corresponding Areas, will be provided during curriculum advising				

BME Areas for Specialty Electives

- Pharmacoengineering
- Regenerative Medicine
- Rehabilitation Engineering
- Biosignals and Imaging
- Medical Microdevices

Fall only:

			Completed-✓	Or plan to take:
BMME	697	Senior Design Project		

Spring only:

BMME	698	Senior Design Project		
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Any semester

Approaches class: Historical Analysis (HS) ⁶	
Approaches class: Social and Behavioral Science (SS,HS) ⁶	
Approaches class: Social and Behavioral Science (SS,HS) ⁶	
Approaches class: Philosophical and Moral Reasoning (PH)	
Approaches class: Literary Arts (LA)	
Approaches class: Visual and Performing Arts (VP)	
Lifetime Fitness	

Approaches classes must also meet connections no additional credit hours

US Diversity (US)	
North Atlantic World (NA)	
Beyond the North Atlantic World (BN)	
World Before 1750 (WB)	
Global Issues (GL)	