Georgia Tech | School of Chemical & Biomolecular Engineering

List of Biotechnology Electives
(revised 3/25/2025)
BSChBE – Biotechnology Option

Three (3) credit hours of biotechnology engineering elective must be chosen as part of the degree requirements for the Biotechnology option. This requirement can be fulfilled either through research (*see approval process below*) or through courses from the following approved list.

Approved Courses

ChBE undergraduate courses:

CHBE 4757	Biofluid Mechanics
CHBE 4710/6710	Microfluidics & Bio-Applications
CHBE 4760/6760	Biocatalysis
CHBE 4762/6762	Protein Engineering
CHBE 4765/6765	Drug Design, Development, and Delivery
CHBE 4782	Biosystems Analysis
CHBE 4803/8803	Renewable Biochemistry
CHBE 4803/8803	Interfacial and Biomolecular Engineering
CHBE 4803/8803	Engineering of Next-Generation Medical Devices
CHBE 4803/8803	Biomolecular Systems Engineering

ChBE graduate courses *(require instructor permit and level permit, which is issued by Registrar)*:

CHBE 6777	Advanced Biomaterials

BMED courses *(major-restricted; permit from BME required for ChBE students)*:

BMED 3520	Biomedical Systems and Modeling
	(prereq BMED 3100; BMED 2110/2210 can be waved based on CHBE 2100)
BMED 4751	Introduction to Biomaterials *(prereq MSE 2001)*
BMED 4783	Intro Medical Image Processing *(prereq BMED 2400/ISYE 3770/CEE 3770)*
BMED 4784	Engineering Electrophysiology *(prereq BMED 3520)*

No two courses will be allowed towards satisfying degree requirements if there is a more than 20% overlap in their course content.

Research as Biotechnology Elective

Research for credit at 4000-level (XXXX 4699) can be used to fulfill the Biotechnology elective requirement, but the **project must be approved by the Associate Chair for Undergraduate Studies. It is very wise to seek this approval <u>before</u> the start of the semester to prevent surprises**; research projects must be focused on biotechnology-related topics.

To seek research approval, please submit a one-page abstract that includes the following information:
1. Research project title
2. Student name and GT-ID#
3. Term of the for-credit research (incl. number of credit hours)
4. Name of the supervising professor/faculty
5. Abstract (100-200 words)
6. Signature of the supervising professor/faculty