

STEVENSON

U N I V E R S I T Y

Community College of Baltimore County
A.S. Transfer Plan (Biomedical Engineering)

Associate of Science in Engineering to the Bachelor of Science in Biomedical Engineering

This transfer plan is intended for students pursuing an **Associate of Science in Engineering** at CCBC who are interested in pursuing a **Bachelor of Science in Biomedical Engineering** at Stevenson University. The equivalencies below demonstrate how a student can meet both the requirements of the associate degree and prepare for a seamless transfer to Stevenson. Any student who enters Stevenson with an A.A. or A.S. degree will have completed all general education requirements with the exception of composition II if not taken at the community college. Please note:

- Only courses that have course equivalencies are displayed. This guide does not show all transferable courses from this college. It also does not display all Stevenson University courses that will fulfill a specific requirement.
- Program requirements must be completed with a grade of C or better, and general education courses must be passed with a grade of D or better with the exception of College Composition.
- Stevenson University will accept up to 70 credits from 2-year institutions. Up to 90 credits can be applied to degree requirements from a combination of 2-year institutions, 4-year institutions, and non-direct classroom instruction (including CLEP, AP, and other nationally recognized standardized examination scores). For additional information about credit transfer, please see: <http://www.stevenson.edu/admissions-aid/getting-started/transfer-students/transfer-credit-evaluation/>
- For scholarship information please see the “Paying for College” page on: <http://www.stevenson.edu/transfer>
- Transfer plans are intended to be used as planning tools. If you need additional assistance in selecting courses to take prior to transferring to Stevenson University, contact Stevenson Admissions at 443-352-4450 or admissions@stevenson.edu.

Course by Course Equivalency (SU Catalog, 2020-2021; CCBC Catalog, 2020-2021)

CCBC Course	Credits	SU Equivalent	Credits	Notes
General Education Requirements				
CHEM 131-General Chemistry I	4	CHEM 115/115L-General Chemistry I	4	Program Requirement and General Education SR
CMNS 101-Fundamentals of Communication	3	CM 120-Human Communication	3	General Education CI Requirement
CSIT 111-Logic and OO Design	3	IS 170-Systems Development with UML	3	General Elective Requirement
ENGL 101-College Composition I	3	ENG 151-College Writing I	3	General Education Requirement
MATH 251-Calculus I	4	MATH 220-Calculus I	4	Program Requirement and General Education QL requirement
PHYS 151-General Physics I	4	PHYS 215-General Physics I	4	Program Requirement and General Education SR-L

General Education Electives¹ Choose courses in each category from the list of approved General Education Courses				
Arts and Humanities	3	General Education Fine Arts/Humanities	3	General Education HUM or FA Requirement
Social and Behavioral Sciences	6	General Education Social Science	6	General Education SS Requirement
Program Requirements				
CHEM 133-General Chemistry I	4	CHEM 116/116L-General Chemistry II	4	Program Requirement
ENSC 101-Introduction to Engineering Design	3	BME 101-Introduction to Biomedical Engineering	3	Program Requirement
MATH 252-Calculus II	4	MATH 221-Calculus II	4	Program Requirement
MATH 253-Calculus III	4	MATH 222-Calculus III	4	Program Requirement
MATH 259-Elementary Differential Equations	3	MATH 299TR	3	Program Requirement <i>Fulfills MATH 321- Introduction to Differential Equations</i>
PHYS 251-General Physics II	4	PHYS 216-General Physics II	4	Program Requirement
Program Electives Stevenson recommends the following courses.				
CHEM 200-Organic Chemistry I and CHEM 201-Organic Chemistry Lab	4	CHEM 210/210L-Organic Chemistry I	4	Program Requirement
BIOL 110-Biology I: Molecular and Cells	4	BIO 113/113L-General Biology I: Cell Biology and Genetics	4	Program Requirement
Choose from one of the following: CSIT 210-Introduction to Programming, or ENSC 114- Principles of Electronics/Electricity, or ENSC 111-Mechanics I (Statics)	4 3 3	IS 240-Programming Concepts General Elective General Elective	3-4	General Elective Requirement
Total Credits	63-64		63-64	

¹ One general education course must fulfill the diversity course requirement

*Courses with a grade of C (2.0) and above will transfer to Stevenson. Courses with a grade of D (1.0) will fulfill general education requirements unless the general education requirement is also a program requirement. A grade of “C” or higher is required for CCBC courses that fulfill ENG 151 and ENG 152 at Stevenson University.

Remaining Courses

Students who complete the plan above including all recommended courses and earn the A.S. in Engineering will take the following courses at Stevenson University to meet their graduation requirements. Students who transfer before completing the **Associate of Science in Engineering** may have additional program and graduation requirements to take and fewer free electives.

Major Requirements

All transfer students will be required to take a minimum of 55 credits of coursework at Stevenson University. A minimum total of 120 credits are required for the degree.

Completion of the **Bachelor of Science in Biomedical Engineering** requires students to successfully complete the following course work:

Stevenson Course	Credits	Explanation
ENG 152-College Writing II	3	General Education Requirement
SCI 215-Writing in the Sciences	3	Major Requirement
BME 205-Problem Solving and Design	4	Major Requirement
BME 210-Thermodynamics	3	Major Requirement
BME 230-Biofluids	3	Major Requirement
BME 313-Biostatistics	3	Major Requirement
BME 315-Biomaterials	4	Major Requirement
BME 320-Biomedical Engineering Internship	3	Major Requirement
BME 335-Instrumentation	3	Major Requirement
BME 340-Systems Physiology	4	Major Requirement
BME 380-Biomechanics	4	Major Requirement
BME 470/475-Biomedical Engineering Design Capstone I & II*	6	Major Requirement
Basic Science Electives (2 courses), choose from: BIO 217-Principles of Biochemistry BIO 222-Human Anatomy BIO 230-Genetics BIO 310-Cell Biology BIO 322-Human Physiology BIO 330-Molecular Genetics BIOCH 327-Biochemistry BICH 427-Advanced Biochemistry CHEM 211-Organic Chemistry II/CHEM 211L	6-8	Elective Requirement

Stevenson Course	Credits	Explanation
Organic Chemistry II Laboratory CHEM 340-Medicinal and Drug Chemistry		
BME electives. Take two courses, choose from: BME 325-Transport Systems* BME 330-Bioelectric Systems* BME 365-Independent Research in Biomedical Engineering* BME 425-Synthetic Biology*	6	Elective Requirement
Up to 3 credits of general electives if needed to meet the 120 credit minimum for the B.S. degree	3	Elective Requirement
Total Credits	55-58	

*Courses currently under development. Suitable substitutes will be identified as needed.

Additional Credits Needed

Total credits to be taken at SU: **55-58**

Articulation Agreement Signed 3.11.2021