

# STEVENSON

## UNIVERSITY

Anne Arundel Community College

A.S. Transfer Plan

A.S. Engineering Transfer to B.S. Biomedical Engineering

This transfer plan is intended for students pursuing an A.S. in Engineering Transfer at Anne Arundel Community College who are interested in pursuing a B.S. 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.
- 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.

Community College Degree Requirements	Stevenson Equivalency	Category	Credits Transferred
EGR 120 - Introduction to Engineering Design	BME 101 Introduction to Biomedical Engineering	Program Requirement	3
CHE 111 – General Chemistry 1/L	CHEM 115/115L General Chemistry	Program Requirement	4
ENG 101 – Academic Writing and Research 1	ENG 151 College Writing I	General Elective	3
MATH 191 - Calculus with Analytical Geometry 1	MATH 220 Calculus I	Program Requirement	4
MATH 192 - Calculus with Analytical Geometry 2	MATH 221 Calculus II	Program Requirement	4
MATH 201 - Calculus with Analytical Geometry 3	MATH 222 Calculus III	Program Requirement	4
MAT 212 - Differential Equations	<i>Satisfies MATH 321 Introduction to Differential Equations</i>	Program Requirement	4
PHY 211 – General Physics 1	PHYS 215 General Physics I	Program Requirement	4
PHY 212 – General Physics 2	PHYS 216 General Physics II	Program Requirement	4
<b>Technical Electives:</b> <b>SU Recommends:</b> <ul style="list-style-type: none"> <li>• CHE 112 – Principles of General Chemistry 2/L (4)</li> <li>• CHE 213 - Organic Chemistry 1/L (4)</li> <li>• ENG 102 – Academic Writing and Research 2 (3)</li> <li>• EGR 209 – Statics (3) – or – EGR 235 Circuit Theory (4)</li> </ul>	<ul style="list-style-type: none"> <li>• CHEM 116/116L General Chemistry II</li> <li>• CHEM 210 Organic Chemistry I/CHEM 210L Organic Chemistry I</li> <li>• ENG 152 College Writing II</li> <li>• BME 299</li> </ul>	<ul style="list-style-type: none"> <li>• Program Requirement</li> <li>• Program Requirement</li> <li>• Program Requirement</li> <li>• BME Elective 1 of 2</li> </ul>	14-15

Community College Degree Requirements	Stevenson Equivalency	Category	Credits Transferred
Gen Ed requirements (2 – Arts & Humanities, 1 – Wellness, 2 – Social Science; must include 1 – Diversity)	General Education Requirements		15
Total	<b>63-64 Credits</b> <b>Please note: A minimum of 63 credits are needed for the associate degree</b>		

### Remaining Courses to be taken at Stevenson

Students who complete the plan above including all recommended courses and earn the A.S. in Engineering Transfer will take the following courses at Stevenson to meet the B.S. in Biomedical Engineering requirements. Students who transfer before completing the associate degree may have more general education and program requirements to take and fewer free electives.

General Education Requirements (0 credits)

N/A

Major Requirements (53 credits)

SCI 215 Writing in the Sciences, 3 credits

BIO 113/113L General Biology 1: Cell Biology and Genetics/Laboratory, 4 credits

BME 205 Problem Solving and Design, 4 credits

BME 210 Thermodynamics, 3 credits

BME 230 Biofluids, 3 credits

BME 314 Biostatistics, 3 credits

BME 315 Biomaterials, 4 credits

BME 320 Clinical Immersion, 3 credits

BME 335 Instrumentation, 3 credits

BME 340 Systems Physiology, 4 credits

BME 380 Biomechanics, 4 credits

BME 470/475 Biomedical Engineering Design Capstone I & II\*, 6 credits

#### Basic Science Electives (2 courses), choose from: (6-8 credits)

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 Organic Chemistry II Laboratory

CHEM 340 Medicinal and Drug Chemistry

#### BME electives. Take one course, choose from: (3 credits)

BME 325 Transport Systems\*

BME 330 Bioelectric Systems\*

BME 365 Independent Research in Biomedical Engineering\*

BME 425 Synthetic Biology\*

BME 440 Topics in Biomedical Engineering\*

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

Additional Credits Needed: up to 4 credits of general electives

Up to 4 credits of general electives if needed to meet the 120 credit minimum for the B.S. degree.

Total credits to be taken at SU: 57-59

### Suggested Course Sequence

<b>YEAR 3</b>				
SEMESTER	<b>FALL</b>		<b>SPRING</b>	
RECOMMENDED COURSES	BME 205 Problem Solving and Design	4	BME 210 Thermodynamics	3
	BME 314 Biostatistics	3	BME 230 Biofluid Mechanics	3
	BME 380 Biomechanics	4	BME 320 Clinical Immersion	3
	BIO 113 Gen Biology I: Cell and Genetics with BIO 113L Gen Biology I Laboratory	4	SCI 215 Writing in the Sciences	3
			Science Elective (1 of 2)	3-4
<b>CREDITS</b>	<b>15 CREDITS</b>		<b>15-16 CREDITS</b>	
<b>YEAR 4</b>				
SEMESTER	<b>FALL</b>		<b>SPRING</b>	
RECOMMENDED COURSES	BME 335 Instrumentation	3	BME 315 Biomaterials	4
	BME 340 Systems Physiology	4	BME 475 BME Design Capstone II	3
	BME 470 BME Design Capstone I	3	BME Elective (2 of 2)	3-4
	Science Elective (2 of 2)	3-4	General elective (if needed)	3
	General elective (if needed)	3		
<b>CREDITS</b>	<b>16-17 CREDITS</b>		<b>13-14 CREDITS</b>	

Signed 6/24/2021