

STEVENSON

UNIVERSITY

Howard Community College

A.A. Transfer Plan

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

This transfer plan is intended for students pursuing an A.A. in Engineering at Howard 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 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.

Community College Degree Requirements	Stevenson Equivalency	Category	Credits Transferred
ENES 100 Introduction to Engineering Design	BME 101 Introduction to Biomedical Engineering	Program Requirement	3
CHEM 101 General Inorganic Chemistry w/ lab	CHEM 115/115L General Chemistry	Program Requirement	4
ENGL 121 College Composition	ENG 151 College Writing I	General education	3
MATH 181 Calculus I	MATH 220 Calculus I	Program Requirement	4
MATH 182 Calculus II	MATH 221 Calculus II	Program Requirement	4
MATH 260 Differential Equations	MATH 321 Introduction to Differential Equations	Program Requirement	4
PHYS 110 General Physics I w/ lab	PHYS 215 General Physics I	Program Requirement	4
PHYS 111 General Physics II w/ lab	PHYS 216 General Physics II	Program Requirement	4
Electives: SU Recommends: <ul style="list-style-type: none"> • MATH 240 Calculus III (4) • CHEM 102 General Inorganic Chemistry II w/ lab (4) • CHEM 201 Organic Chemistry I w/ lab (4) • BIOL 120 Biology for Engineers; BIOL 121 Biology for Engineers Laboratory (4) 	<ul style="list-style-type: none"> • MATH 222 Calculus III • CHEM 116/116L General Chemistry II • CHEM 210 Organic Chemistry I/CHEM 210L Organic Chemistry I • Biology 113 General Biology I: Cell Biology and Genetics and Biology 113 	Program Requirements	16
Electives: SU Recommends: <ul style="list-style-type: none"> • ENES 120 Statics (3) • Engineering Elective (3) 	<ul style="list-style-type: none"> • BME 299 General elective (2 courses, 6 credits) 	General electives	6

Community College Degree Requirements	Stevenson Equivalency	Category	Credits Transferred
Social & Behavioral Sciences – Critical & Creative Thinking Core	General education		3
Arts & Humanities – Critical & Creative Thinking Core	General education, Fine Arts		3
Social & Behavioral Sciences – Global Competency Core	General education, Social Science		3
Arts & Humanities – Oral Communication Core	General education, Depends upon course		3
Total	64 credits Please note: A minimum of 60 credits are needed for the associate degree		

Remaining Courses to be taken at Stevenson

Students who complete the plan above including all recommended courses and earn the A.A. in Engineering will take the following courses at Stevenson to meet the B.S. 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 (3 credits)

ENG 152 College Writing II, 3 credits

Major Requirements (52 credits)

SCI 215 Writing in the Sciences, 3 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 two courses, choose from: (6 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 1 credits of general electives

Up to 1 credit of general electives if needed to meet the 120 credit minimum for the B.S. degree.

Total credits to be taken at SU: **56**

Suggested Course Sequence

YEAR 3				
SEMESTER	FALL		SPRING	
RECOMMENDED COURSES	BME 205 Problem Solving and Design	4	BME 210 Thermodynamics	3
	ENG 152 College Writing II	3	BME 230 Biofluid Mechanics	3
	BME 314 Biostatistics	3	BME 320 Clinical Immersion	3
	BME 380 Biomechanics	4	SCI 215 Writing in the Sciences	3
	Science Elective (1 of 2)	3-4	BME Elective (1 of 2)	3-4
CREDITS	17-18 CREDITS		15-16 CREDITS	
YEAR 4				
SEMESTER	FALL		SPRING	
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		
CREDITS	16-17 CREDITS		13-14 CREDITS	

Howard Community College Chair Contact: Mark Edelen, Professor and Chair, Engineering and Technology.

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