

BACHELOR OF SCIENCE IN BIOMEDICAL ENGINEERING

Catalogue
2017-2018

Systems and Network Biology Specialization (BME-SNB)

Student: _____
ID #: _____

Date: _____
Advisor: _____

Year 1

Semester 1	Cr	Status	Semester 2	Cr	Status
ENGR 002 - Graphical Communication	2		BME 001 - Intro to Biomedical Eng Design ⁴	2	
CHEM 031 - General Chemistry I	4		PHYS 031 - Physics for Engineers I	4	
Foundational Writing and Information Literacy ¹	3		MLRS 034 - Human Cell Biology	4	
MATH 021 - Calculus I	4		MATH 022 - Calculus II	4	
CS 020 - Programming for Engineers	3		CHEM 032 - General Chemistry II	4	
ENGR 050 - First Year Engineering Seminar	1				
<i>Total credits</i>	<i>17</i>		<i>Total credits</i>	<i>18</i>	

Year 2

Semester 1	Cr	Status	Semester 2	Cr	Status
EE 100 - Electrical Engr. Concepts I	4		CS 064 - Discrete Structures	3	
CE 001 - Statics	3		CS 110 - Intermediate Programming	4	
ANPS 019 - Human Anatomy & Physiology	4		ANPS 020 - Human Anatomy & Physiology	4	
MATH 121 - Calculus III	4		MATH 271 - Adv Engineering Mathematics	3	
PHYS 125 - Physics for Engineers II	3		BME 081 - Biomedical Engineering Lab I	2	
<i>Total credits</i>	<i>18</i>		<i>Total credits</i>	<i>16</i>	

Year 3

Semester 1	Cr	Status	Semester 2	Cr	Status
CS 124 - Data Structures and Algorithms	3		BME Systems and Network Biology Elective ³	3	
EE 171 - Signals and Systems	4		BME Systems and Network Biology Elective ³	3	
STAT 143 - Statistics for Engineering	3		BME Systems and Network Biology Elective ³	3	
MATH 122 - Applied Linear Algebra	3		BME Systems and Network Biology Elective ³	3	
BME 151 - Fall BME Workshop	1		BME 152 - Spring BME Workshop	1	
General Education Elective ²	3		General Education Elective ²	3	
<i>Total credits</i>	<i>17</i>		<i>Total credits</i>	<i>16</i>	

Year 4

Semester 1	Cr	Status	Semester 2	Cr	Status
BME SNB Technical Elective ⁵	3		BME SNB Technical Elective ⁵	3	
BME SNB Technical Elective ⁵	3		BME SNB Technical Elective ⁵	3	
BME 187 - Capstone Design I	3		BME 188 - Capstone Design II	3	
BME 181 - Biomedical Eng Lab II	2		General Education Elective ²	3	
General Education Elective ²	3		General Education Elective ²	3	
<i>Total credits</i>	<i>14</i>		<i>Total credits</i>	<i>15</i>	

1. Foundational Writing and Information Literacy: Students must take either ENGS 001 or HCOL 085 (only if the student is enrolled in the Honors College). Students transferring from the College of Arts and Sciences can use a TAP class to fulfill this requirement.

2. Required General Education Electives (GenEd): fifteen credits of approved GenEd electives, including three credits of D1 and three credits of D1 or D2.

3. Systems & Network Biology Electives: CE, EE, ENGR, ME, CS, MATH, STAT and life/physical sciences courses with the approval of BME advisor. At least 9 hours must be 100-level or above engineering courses.

4. First-Year Design Experience: Transfer students without applicable transfer credit have the option of either taking [BME 001](#) or replacing the credits with engineering course work at the 100-level or higher.

5. BME SNB Technical Electives: [BIOC 212](#), [CE 359*](#), [CS 256](#), [CS 302*](#), [CS 352*](#), [EE 207](#), [EE 210](#), [EE 213](#), [MATH 266](#), [MATH 268](#), [MATH 300*](#), [MATH 303*](#), [ME 201](#), [ME 208](#), [ME 209](#), [ME 285](#), [ME 312*](#), [MMG 223](#), [MMG 231](#), [MMG 232](#), [MMG 233](#), [MPBP 323*](#), [PATH 101](#), [PHRM 201](#), [PHRM 240](#), [PHRM 272](#), [STAT 200](#) & [STAT 211](#). Other courses may be pre-approved by advisor and program head. At least 9 credits must be at the 200-level or above. Note that 300-level courses (*) require instructor permission for undergraduate enrollment.