

B. Eng. Bioresource Engineering Course Sequence

Fall 2019 admission from HIGH-SCHOOL (143 credits ^A)

U0 Fall Term		14.5 credits
AEBI 120	General Biology	3
AECH 110	General Chemistry 1	4
AEMA 101	Calculus 1	3
AEPH 113	Physics 1	4
BREE 187	Freshman Seminar 1	0.5
U0 Winter Term		15.5 credits
AECH 111	General Chemistry 2	4
AEMA 102	Calculus 2	4
AEPH 115	Physics 2	4
BREE 103	Linear Algebra	3
BREE 188	Freshman Seminar 2	0.5
U1 Fall Term		16 credits
AEMA 202	Intermediate Calculus	3
BREE 205	Engineering Design 1	3
BREE 210	Mechanical Analysis & Design	3
BREE 216	Bioresource Engineering Materials	3
BREE 252	Computing for Engineers	3
BREE 451	UG Seminar 1 - Oral Presentation	1
U1 Winter Term		16 credits
AEMA 305	Differential Equations	3
BREE 301	Biothermodynamics	3
BREE 341	Mechanics of Materials	3
BREE 452	UG Seminar 2 - Poster Presentation	1
	2 complementary courses from set B, C, or D	6
U2 Fall Term		16 credits
BREE 305	Fluid Mechanics	3
BREE 319	Engineering Mathematics	3
BREE 327	Bio-Environmental Engineering	3
BREE 453	UG Seminar 3 - Scientific Writing	1
	2 complementary courses from set B, C, or D	6
U2 Winter Term (on the downtown campus)		16 credits
ECSE 461	Electric Machinery	3
FACC 250	Responsibilities of the Professional Engineer	0
FACC 300	Engineering Economy	3
FACC 400	Engineering Professional Practice	1
MECH 289	Design Graphics	3
MECH 346	Heat Transfer	3 ^B
	1 complementary course from set B, C, or D	3
U3 Fall Term		16 credits
AEMA 310	Statistical Methods 1	3 ^C
BREE 485	Senior Undergraduate Seminar 1	1
ENVR 201	Society, Environment and Sustainability	3 ^D
	3 complementary courses from set B, C, or D	9
U3 Winter Term		15 credits
BREE 415	Design of Machines and Structural Elements	3
BREE 420	Engineering for Sustainability	3
BREE 490	Engineering Design 2	3
	2 complementary courses from set B, C, or D	6
U4 Fall Term		18 credits
BREE 495	Engineering Design 3	3
	5 complementary courses from set B, C, or D	15

^A Students who have an International Baccalaureate diploma, who have passed AP examinations, or who have passed A-Level examinations may receive transfer credit for some U0-level courses and should consult an academic advisor.

^B CHEE 315 Heat and Mass Transfer may be taken instead of MECH 346.

^C CIVE 302 Probabilistic Systems may be taken instead of AEMA 310.

^D SOCI 235 Technology and Society may be taken instead of ENVR 201.