Natural Science — Engineering Concentration (AS) (33 credits)

Degree Type
Associate in Science

Course #	Title	Credits
EE 160	Programming for Engineers	4
MATH 242	Calculus II	4
MATH 243	Calculus III	3
MATH 244	Calculus IV	3
PHYS 170	General Physics I	4
PHYS 170L	General Physics I Lab	1
PHYS 272	General Physics II	3
PHYS 272L	General Physics II Lab	1
EE 211	Basic Circuit Analysis I	4

Concentration Electives (6 credits)

6+ credits - *to meet 60-credit minimum 100-level or higher coursework and other graduation requirements not yet satisfied.*

Any course listed under the Diversification (DA, DH, DL, DS) designations can be taken as well.

Course #	Title	Credits
AG 122	Soil Technology	3
AG 174	Insects & Their Control	3
AG 200	Principles of Horticulture	3
AG 200L	Principles of Horticulture Lab	1
AG 253	Hawaiian Food Plants: Traditional and Contemporary Production	3
AG 253L	Hawaiian Food Plants: Traditional and Contemporary Production Lab	1
AG 265	Horticulture of Hawaiian Plants	3
AG 265L	Horticulture of Hawaiian Plants Lab	1
ANTH 210	Archaeology	3
ANTH 210L	Archaeology Laboratory	1
ANTH 215	Physical Anthropology	3
AQUA 466	Fisheries Science	2
AQUA 466L	Fisheries Science Lab	1
ASTR 110	Survey of Astronomy	3
ASTR 110L	Introduction to Astronomy Laboratory	1
BIOC 141	Fundamentals of Biochemistry	3
BIOC 142	Elements of Biochemistry	3
BIOL 100	Human Biology	3
BIOL 105	Hawaiian Field Biology	3
BIOL 105L	Hawaiian Field Biology Lab	1
BIOL 124	Environment and Ecology	3
BIOL 124L	Environment and Ecology Lab	1
BIOL 151	Introduction to Genetics	3
BIOL 152L	Introduction to Biotechnology Lab	2
BIOL 171	General Biology I	3
BIOL 171L	General Biology I Lab	1
BIOL 172	General Biology II	3
BIOL 172L	General Biology II Lab	1
BIOL 200	Coral Reefs	3
BIOL 200L	Coral Reefs Lab	1
BIOL 282	Global Change	3
BIOL 331	Marine Mammal Biology	3
BIOL 331L	Marine Mammal Biology Lab	1
BIOL 424	Protected Species Management	2
BIOL 424L	Protected Species Management Lab	1
BIOL 101	Biology and Society	3
BIOL 101L	Biology and Society Lab	1
SCI 121	Introduction to Science: Biological Science	3
SCI 121L	Introduction to Science: Biological Science Lab	1
BIOL 102	General Botany	3
BIOL 102L	General Botany Lab	1
BOT 101	General Botany	3
BOT 101L	General Botany Lab	1
BIOL 103	Principles of Zoology	3
BIOL 103L	Principles of Zoology Lab	1
ZOOL 101	Principles of Zoology	3

ZOOL 101L	Principles of Zoology Lab	1
CHEM 272	Organic Chemistry I	3
CHEM 272L	Organic Chemistry I Lab	2
CHEM 273	Organic Chemistry II	3
CHEM 273L	Organic Chemistry II Lab	2
FSHN 185	Food Science and Human Nutrition	3
FSHN 285	The Science of Human Nutrition	3
GEO 101	The Natural Environment	3
GEO 101L	The Natural Environment Laboratory	1
GG 101	Introduction to Geology	3
GG 101L	Introduction to Geology Lab	1
GG 103	Geology of Hawaiian Islands	3
GIS/ICS 150	Introduction to GIS/GPS	4
GIS 180	GIS in Ecosystem Management	4
ICS 110	Introduction to Computer Programming	3
ICS 111	Intro to Computer Science I	4
ICS 173	Introduction to Data Science	3
MATH 103	College Algebra	3
MATH 115	Introduction to Statistics and Probability	3
MATH 135	Pre-Calculus: Elementary Functions	3
MATH 140X	Accelerated Pre-Calculus: Elementary functions, Trigonometry and Analytic Geometry	4
MICR 130	General Microbiology	3
MICR 140	General Microbiology Lab	2
OCN 201	Science of the Sea	3
OCN 201L	Science of the Sea Lab	1
PHRM 203	General Pharmacology	3
PHYL 141	Human Anatomy & Physiology I	3
PHYL 141L	Human Anatomy & Physiology I Lab	1
PHYL 142	Human Anatomy & Physiology II	3
PHYL 142L	Human Anatomy & Physiology II Lab	1
PHYS 151	College Physics I	3
PHYS 151L	College Physics I Lab	1
PHYS 152	College Physics II	3
PHYS 152L	College Physics II Lab	1
SCI 114	Introduction to Scientific Method and Laboratory	3
SCI 122	Intro to Science: Physical Science	3
SCI 122L	Intro to Science: Physical Science Lab	1
SCI 165L	Introduction to Science Laboratory Techniques	1
SCI 265L	Environmental Testing Lab	1
SCI 295v	STEM Research Experience	1-3
SSM 101	Sustainability in a Changing World	3
SSM 201	Sustainable Building Design	3
SSM 202	Sustainable Island Communities	3
SSM 275	Basic Energy Production	3
SSM 302	Environmental Health	3
SSM 375	Renewable Energy Conversions and Processes	3
SSM 384	Sustaining the Globalized Ocean	3
SSM 402	Water Resources Management	3
ZOOL 200	Marine Biology	3
ZOOL 200L	Marine Biology Lab	1

Course Sequencing

Engineering full-time students would take courses in this sequence

First Semester (Fall) (14 credits)

Course #	Title	Credits
CHEM 161	General Chemistry I	3
CHEM 161L	General Chemistry I Lab	1
ENG 100	Composition I	3
MATH 241	Calculus I	4
	Global Multicultural Perspective Elective	3

Second Semester (Spring) (15 credits)

Course #	Title	Credits
CHEM 162	General Chemistry II	3
CHEM 162L	General Chemistry II Lab	1
EE 160	Programming for Engineers	4
MATH 242	Calculus II	4
	DS Elective	3

Third Semester (Fall) (14-15 credits)

Course #	Title	Credits
PHYS 170	General Physics I	4
PHYS 170L	General Physics I Lab	1
	DA/DH/DL Elective	3
MATH 243	Calculus III	3
	Engineering Concentration Elective	3-4

Fourth Semester (Spring) (17-18 credits)

Course #	Title	Credits
PHYS 272	General Physics II	3
PHYS 272L	General Physics II Lab	1
EE 211	Basic Circuit Analysis I	4
	Engineering Concentration Elective	3-4
	Global Multicultural Perspective Elective	3
MATH 244	Calculus IV	3