

BIOLOGY
Bachelor of Science

CONCORDIA UNIVERSITY IRVINE		MARYMOUNT CALIFORNIA UNIVERSITY
Must take in Enduring Questions & Ideas (GE)		
CHE 221	Chemistry I	SCI 220 – General Chemistry I (5)
MTH 271	Calculus I	MTH 130 – Calculus I (4)
CORE		
BIO 111	General Biology I	SCI 240 – General Biology I (4)
BIO 112	General Biology II	SCI 241 – General Biology II (4)
BIO 350	Molecular and Cellular Biology	SCI 340 – Cell Biology (4) and SCI 341 – Techniques in Biology Laboratory (2)
BIO 355	Biostatistics	no equivalent
BIO 496	Research in Biology	SCI 395 - Independent Study (1-4) or SCI 495 - Independent Study (1-4) *see note below
BIO 499	Senior Thesis	no equivalent - *see note below
CHE 222	Chemistry II	SCI 221 – General Chemistry II (5) (SCI 220 – General Chemistry I meets CHE 221 prereq)
CHE 321	Organic Chemistry I	SCI 315 – Organic Chemistry I (5)
CHE 322	Organic Chemistry II	SCI 316 – Organic Chemistry II (5)
MTH 272	Calculus II	MTH 131 - Calculus II (4)
SCI 455	History and Philosophy of Science	no equivalent - **see note below
SCI 495	Research Methods	no equivalent - *see note below
Choose 1 of the following courses:		
BIO 308	Molecular Genetics	SCI 380 – Molecular Biology (5)
BIO 309	Population Genetics	no equivalent
Choose 1 of the following pairings:		
PHY 211	Physics I	SCI 200 – General Physics I (4)
PHY 212	Physics II	SCI 201 – General Physics II (4)
OR		
PHY 221	Calculus-based Physics I	SCI 230 – Physics with Calculus I (5)
PHY 222	Calculus-based Physics II	SCI 231 – Physics with Calculus II (5)
<p><i>*CUI's SCI 495 & BIO 496 is a 2-3 semester thesis research series whereas Bio 490 is a 3-unit internship option. Both are followed by Bio 499, where students present their research/internship. If you have already completed hands-on research or an internship, we may be able to give credit for these courses and have you complete Bio 499 before graduating. If you are too close to graduation to complete either series, we will work with you to find a solution (e.g. smaller-scope research project, short internship, waive the requirement, etc.)</i></p> <p><i>**CUI's SCI 455 is a senior-level course that captures a critical element of the Concordia Biology Department experience and is the only course we intend to have every transfer student take before graduation. It is offered each semester.</i></p>		
ELECTIVES:		
Choose a minimum of 20 units from the following courses.		
BIO 246 and BIO 247	Human Anatomy & Physiology I and Human Anatomy & Physiology II	SCI 132 – Human Anatomy (4) and SCI 133 – Human Physiology (4)
BIO 308	Molecular Genetics *	SCI 380 – Molecular Biology (5)
BIO 309	Population Genetics *	no equivalent

BIO 317	Ecology	no equivalent
BIO 331	Marine Biology	SCI 160 – Marine Biology (4)
BIO 341	Plant Biology	no equivalent
BIO 345	Evolutionary Zoology	SCI 130 – Biology of Animals (4 units)
BIO 351	General Microbiology	SCI 330 – Biology of Microorganisms (4)
BIO 361	Field Biology Techniques	no equivalent
BIO 371	Neuroscience	no equivalent
BIO 390	Practicum: Biology	no equivalent
BIO 401	Biology Seminar	SCI 443 – Biology Seminar (4)
CHE 421	Biochemistry I	SCI 320 – Biochemistry (4) and SCI 321 – Biochemistry Lab (2)
KIN 317 or KIN 406	Kinesiology Exercise Physiology	no equivalent SCI 333 – Exercise Physiology (4)
PHI 467	Bioethics and Healthcare Professions	no equivalent
SCI 118	Physical Oceanography	no equivalent
SCI 301	Earth Science	no equivalent
SCI 318	Ocean Science	no equivalent
Additional approved major electives – LD (lower division); UD (upper division)		
		SCI 135 – Anatomy and Physiology (4) - LD
		SCI 136 – Medical Terminology (1) - LD
		SCI 140 – Plants and Civilization (4) - LD
		SCI 150 – Microbiology (4) <i>Not eligible if SCI 330 taken</i> - LD
		SCI 170 - Ecology of Humans (4) - LD
		SCI 233 – Science of Human Performance (4) - LD
		SCI 242 – General Biology III (4) – LD*
		SCI 246 – Nutrition (4) - LD
		SCI 320 – Biochemistry (4) – UD*
		SCI 321 – Biochemistry Lab (2) – UD*
		SCI 334 – Ergogenic Aids in Sports (4) - UD
		SCI 340 – Cell Biology (4) - UD
		SCI 341 – Technique in Biology Laboratory (3) - UD*
		SCI 342 – Science Career Seminar (4) – UD*
		SCI 350 – Genomics (4) - UD
		SCI 440 – Immunology (4) - UD
		SCI 442 – Developmental Biology (4) - UD
		*maximum of 21 units accepted from these courses

The Biology Department approaches these articulations with the desire to facilitate the timely graduation of any MCU transfer student. Therefore, our philosophy is to accept as many courses as possible and provide flexible options to accommodate students. The articulations below are a baseline of our standards, but we are willing to work with each student's unique circumstances and are *especially willing* to accommodate students who are already close to completing their degree.