

Marymount California University
BIOLOGY BS Required Courses Checklist

Effective Fall 2021

REQUIRED BIOLOGY BS CORE COURSES	Core	Prerequisite	Offered	✓
SCI 240 – General Biology I (4 units)	PS3	SCI 115 or 220	F	
SCI 241 – General Biology II (4)	PS3	SCI 240	SP	
SCI 242 – General Biology III (4)	PS3	SCI 241	F	
SCI 220 – General Chemistry I (5)	PS3		F	
SCI 221 – General Chemistry II (5)	PS3	SCI 220	SP	
SCI 200 – General Physics I (4) <u>and</u> SCI 201 – General Physics II (4) OR SCI 230 – Physics with Calculus I (5) <u>and</u> SCI 231 – Physics with Calculus II (5)	PS3	1 from: MTH 105, 111, 130, 131 SCI 200 MTH 120 or 130 SCI 230	F SP	
MTH 130 - Calculus I (4)	A2	MTH 111	F	
SCI 315 – Organic Chemistry I (5)	A3, PS3	SCI 221	F	
SCI 316 – Organic Chemistry II (5)	A3, R2, R3, PS3	SCI 315	SP	
SCI 320 – Biochemistry (4)	PS3	SCI 316	F	
SCI 321 – Biochemistry Lab (2)	PS3	SCI 320	SP	
SCI 341 – Techniques in Biology Laboratory (2)	PS3, R2	SCI 241	F	
SCI 342 – Science Career Seminar (4)	A3, R1	SCI 233 or 241 or 315	SP	
SCI 350 – Genomics (4)	PS3	SCI 241	F	
SCI 380 – Molecular Biology (5)	R2, R3, PS3	SCI 241 & SCI 316	SP	
SCI 443 – Biology Seminar (4)	C1, A3	SCI 342, Sr. Standing	F	

BIOLOGY BS ELECTIVES (12 units minimum)	Core	Prerequisite	Offered	✓
At least 8 units must be upper division (300-400 #)				
SCI 130 – Biology of Animals (4 units)	PS3			
SCI 132 – Human Anatomy (4)	PS3		F	
SCI 133 – Human Physiology (4)	PS3		SP	
SCI 135 – Anatomy and Physiology (4)	PS3			
SCI 136 – Medical Terminology (1)		Rec: a Life Science	F	
SCI 140 – Plants and Civilization (4)	PS3			
SCI 150 – Microbiology (4) Not a degree option if SCI 330 taken	PS3		SP	
SCI 160 – Marine Biology (4)	PS3			
SCI 170 – Ecology of Humans (4)	PS3			
SCI 233 – Science of Human Performance (4)	PS3	SCI 130, 132, 133, 135, 140, 145, 150, 155, 160, 170, 240, 241, 242, or 246	F	
SCI 246 – Nutrition (4)	PS3		SP	
SCI 330 – Biology of Microorganisms (4)	R3, PS3	SCI 241		
SCI 333 – Exercise Physiology (4)	PS3	SCI 233 or 241	SP	
SCI 334 – Ergogenic Aids in Sports (4)	PS3		SP	
SCI 340 – Cell Biology (4)	PS3	SCI 241 & SCI 316	F	
SCI 395/495 – Independent Study (1-4)			F & SP	
SCI 440 – Immunology (4)	PS3	SCI 241		
SCI 442 – Developmental Biology (4)	PS3	SCI 241	SP	

Marymount California University
BIOLOGY BS Required Courses Checklist

Effective Fall 2021

MCU BS CORE COMPETENCY REQUIREMENTS OUTSIDE OF THE MAJOR	Core	Completed
Written Communication 1 - ENG 112/112H	C1	
Oral Communication- CAR 105 or 145, BUS 230	C2	
Information Literacy – ID 230 (1)	A1	
Catholic History and Thought – 1 course from: PHI 325; REL 102, 103, 112, 120, 130/130H, 230, 310	PS1	
Global or Cross-Cultural/Diversity - 1 course from: AM 201, 211, 304, 305; BUS 535; CAR 301, 332, 401; CJ 362; ECO 135, 400, 410; GS 241, 405; HIS 100, 101, 330; ID 302H; POL 240; PSY 280, 340; REL 130/130H; SOC 100, 250; SPA 200; THE 310	PS2	
Creative Thinking - 1 course from: AM (AM exclusions: 107, 207, 307, 407, 450, Internship, and Practicum courses); THE; BUS 315, 316, 415, 454; ENG 120, 125, 140, 310; ID 111, 200H, 430H	PS4	
Ethical Reasoning – 1 course from: ACCT 385; BUS 240; CJ 331; ID 200H, 430H; PHI 100, 110, 150, 215, 315; PSY 240	PS5	

UNIT TOTALS		
MINIMUM UNITS TO EARN A BS = 120 Any college level course listed in the Catalog or accepted as transfer credit may be taken as an elective to fulfill the 120-degree requirement in this degree program.	Completed units	
	Add in-progress units	
	Add planned/remaining units	
	TOTAL UNITS	

BS in Biology Program Learning Outcomes:

1. **Communication:** Communicate effectively the concepts, methods, results and conclusions of biological research, in oral and written form for an intended audience.
2. **Analysis:** Formulate and test hypotheses through collection, analysis, and use of experimental and scientific data in the field of biological sciences.
3. **Problem solving:** Demonstrate steps necessary to solve complex problems in the life sciences disciplines of biochemistry, molecular biology, cell biology, genetics and other biological disciplines.
4. **Info Lit:** Access, select, and critically review scientific knowledge supporting scientific research.
5. **Organisms & Processes:** Express knowledge of living organisms and related processes such as cellular respiration, cell division, metabolism and photosynthesis.
6. **Scientific Development:** Explore and utilize the relevant technical laboratory skills and technology for a career in life science research.