

Graduation Requirements

<input type="checkbox"/>	120 Total Hours	
<input type="checkbox"/>	42 Senior Hours	
<input type="checkbox"/>	Global Study	
<input type="checkbox"/>	Foreign language	

General Education

<input type="checkbox"/>	English 101	EN	
<input type="checkbox"/>	Communication 101	CO	
<input type="checkbox"/>	Mathematics	MA	
<input type="checkbox"/>	Natural Sciences	NS	
<input type="checkbox"/>			
<input type="checkbox"/>	U.S Traditions	US	
<input type="checkbox"/>	Individual and Civic Life	IC	
<input type="checkbox"/>	Fine Arts	FA	
<input type="checkbox"/>	Humanities	HU	
<input type="checkbox"/>	Language in Humanities	LH	
<input type="checkbox"/>	Quantitative Reasoning	QR	
<input type="checkbox"/>	Science, Math, Technology	ST	Exempt
<input type="checkbox"/>	Social Sciences	SS	

Molecular and Cellular Biology Major CHECKLIST

For 2016-2018 Undergraduate Catalogs

Note: S = Senior standing required, M = Major in Biology required

37 hours in Biology courses required; additional hours in Chemistry, Physics, and Math

Courses outside of Biology	Prerequisites
<input type="checkbox"/> Math 145 Calculus 1	Vary by course
<input type="checkbox"/> Math 146 Calculus II or Psy or Eco 138	Vary by course
<input type="checkbox"/> CHE 140 Gen Chem I <input type="checkbox"/> CHE 141 Gen Chem II	Vary by course
<input type="checkbox"/> CHE 230/231 Organic Chemistry	C or better in CHE 141
<input type="checkbox"/> CHE 232 Organic Chemistry II <input type="checkbox"/> CHE 233 lab	C or better in CHE 230
<input type="checkbox"/> CHE 342 or CHE 242 Biochemistry I	CHE 232 for 342; 230 for 242
<input type="checkbox"/> PHY 108 or 110 <input type="checkbox"/> PHY 109 or 111	Vary by course

Required Biology Courses	Prerequisites
<input type="checkbox"/> 196 Biological Diversity (4)*	M
<input type="checkbox"/> 197 Molecular and Cellular Basis of Life (4)*	M
<input type="checkbox"/> 203 Cell Biology (3)	BSC 196, 197; CHE 110 and 112 or 141
<input type="checkbox"/> 219 Genetics (3)	BSC 196 and 197
<input type="checkbox"/> 204 Biological Investigations (1)	M; BSC 196 and 197
<input type="checkbox"/> B50 Molecular Biology (3)	BSC 203, 219, CHE 230/231, 342 or 242 rec
<input type="checkbox"/> 260 Microbiology (4)*	BSC 196, 197; CHE 230/231 or concurrent

Biology elective Courses: 6 hours from	Prerequisites
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<input type="checkbox"/> 329 Human Genetics (3)	BSC 203 and 219
<input type="checkbox"/> 343 Introduction to Neurobiology (3)	BSC 196 and 197
<input type="checkbox"/> 345 Introduction to Endocrinology (3)	BSC 203
<input type="checkbox"/> 346 Developmental Biology (3)	BSC 203; BSC 219 recommended
<input type="checkbox"/> 351 Cell Signaling and Regulation (3)	BSC 197 and 203
<input type="checkbox"/> 353 Biotechnology Lab 1: DNA (3)*	BSC 219; CHE 220 or CHE 230-232
<input type="checkbox"/> 354 Biotechnology Lab II: Cell Biology (3)*	BSC 203; CHE 220 or 230-232 recommended
<input type="checkbox"/> 355 Genomics and Bioinformatics (3)	BSC 203 and 219
<input type="checkbox"/> 361 Microbial Pathogens (4)*	BSC 203 and 260
<input type="checkbox"/> 365 Bioenergy Plant/Microbe Biology and Environment	One from: BSC 201, 203, 212, 219, 260
<input type="checkbox"/> 367 Immunology (4)*	BSC 203
<input type="checkbox"/> 370 Topics in Molecular and Cellular Biology(3)	BSC 197, 203, 219

Biology elective Courses: 9 hours from	Prerequisites
<input type="checkbox"/> 201 Ecology (4)*	BSC 196 and 197
<input type="checkbox"/> 205 Human Developmental Biology (4)	BSC 196 and 197
<input type="checkbox"/> 211 Economic Botany (4)*	BSC 196 or AGR 150, and BSC 197
<input type="checkbox"/> 212 Principles of Botany (4)*	BSC 196 and 197
<input type="checkbox"/> 220 Laboratory in Molecular Genetics and Cell Biology (3)	BSC 203 and either BSC 219 or HSC 260
<input type="checkbox"/> 223 Ecology and Conservation of Plants (4)*	BSC 196 and 197
<input type="checkbox"/> 280 Conservation of Animal and Plant Biodiversity (3)	BSC 196 and 197
<input type="checkbox"/> 283 Animal Physiology (4)*	M; BSC 196/197; CHE 110/112, or CHE 141
<input type="checkbox"/> 286 Animal Behavior (3)	BSC 196 and 197
<input type="checkbox"/> 290 Research in Biological Sciences or 299 (variable hours)	Consent of instructor
<input type="checkbox"/> 292 Invertebrate Zoology (4)*	BSC 196 and 197
<input type="checkbox"/> 294 Evolution and Physiology of Fishes (3)	M; BSC 196/197; CHE 110/112, or CHE 141
<input type="checkbox"/> 295 Comparative Vertebrate Anatomy (4)*	BSC 196 and 197
<input type="checkbox"/> 296 Mammalian Biology (3)	BSC 196 and 197
<input type="checkbox"/> 301 Entomology (4)*	BSC 196 and 197; 201
<input type="checkbox"/> 311 Rainforest Ecology (3)*	BSC 201; consent instructor
<input type="checkbox"/> 325 Ecological Physiology of Animals (3)	BSC 196 and 197; 45 hours completed
<input type="checkbox"/> 327 Hormones, Brain and Behavior (3)	BSC 283 or 286
<input type="checkbox"/> 330 Biology of Algae (4)*	One from: BSC 201, 203, 212, 219, 260
<input type="checkbox"/> 333 Plant Diversity (4)*	One from: BSC 211, 212, 223
<input type="checkbox"/> 335 Plant Taxonomy (3)	One from: BSC 211, 212, 223; concurrent BSC 335
<input type="checkbox"/> 336 Laboratory in Plant Identification (1)	Concurrent registration in BSC 335
<input type="checkbox"/> 370A01 Genetics of Behavior (3)	BSC 197, 203, 219
<input type="checkbox"/> 370A02 Mol/Cellular Basis of Human Pathophysiology(3)	BSC 196 and 197. BSC 203,219 or 283 rec.
<input type="checkbox"/> 375 Stream Ecology Lecture (3)	BSC 196, 197; min 45 hours completed
<input type="checkbox"/> 376 Stream Ecology Laboratory (1)	Concurrent registration in BSC 375
<input type="checkbox"/> 396 Avian Biology (4)*	BSC 196 and 197

*Must take 2 lab courses from elective list in addition to BSC 196, 197, and 260.