BS MICROBIOLOGY

2020-2021 *updated 1.13.2020* **Units Required 180**

NAME _____

STUDENT ID _____

MINOR _____

Cal Poly, Higher Ed, and Major GPA at least 2.00	[ ] YES	[ ] NO
US Cultural Pluralism Met	[ ] YES	[ ] NO
60 Units Upper-Division Met Taken/Remaining	[ ] YES	[ ] NO
GWR Met	[ ] YES	[ ] NO
Upper-Division GE Met Taken/Remaining	[ ] YES	[ ] NO
Free Electives Met	[ ] YES	[ ] NO
C- or higher in A1, A2, A3, and B4	[ ] YES	[ ] NO
Residency Requirements Met	[ ] YES	[ ] NO

NOTE: This is a snapshot of the curriculum as originally published in the catalog. The Degree Progress Report (DPR) reflects updates to the published catalog. The DPR will be used to award your degree and

Note: No Major or Support courses may be selected as credit/no credit.

MAJOR COURSES (70)	Units	Grade	Grd Pts
BIO 160 Diversity and History of Life	4		
BIO 161 Intro to Cell &Molecular Bio (B2&B3)[1]	4		
BIO 263 Introductory Ecology and Evolution	4		
BIO 351 Principles of Genetics	5		
BIO 426 Immunology	4		
BIO 452 Cell Biology	4		
MCRO 224 General Microbiology I	5		
MCRO 225 General Microbiology II	5		
MCRO 402 General Virology	4		
MCRO 423 Medical Microbiology	5		
MCRO 424 Microbial Physiology	5		
BIO 461 ***or*** BIO 462	2		
Electives (see reverse)[2,3,4,5]	19		

SUPPORT COURSES (46)

CHEM 127 Gen Chem I (B1&B3) [1]	4
CHEM 128 Gen Chem II	4
CHEM 129 Gen Chem III	4
CHEM 216 Org Chem I [4]	5
CHEM 217 Org Chem II [4]	3
CHEM 220 Org Chem Lab for Life Sciences II	1
CHEM 313 ***or*** CHEM 371[7]	5
MATH 161 Calculus for the Life Sciences I (B4)[1,4]	4
PHYS 121 College Physics I	4
PHYS 122 College Physics II	4
PHYS 123 College Physics III	4
STAT 218 Applied Stats for Life Sci (GE Elect) [1]	4

GENERAL EDUCATION (GE) 56

72 units req, *16 of which are specified in Major and/or Support*

Minimum of 12 units required at the 300 level.

Area A English Language Comm & Critical Thinking	**12**
A1 Oral Communication	4
A2 Written Communication	4
A3 Critical Thinking	4
Area B Scientific Inquiry & Quantitative Reasoning	**4**
B1 Physical Science *(4 units in Support)* [1]	
B2 Life Science *(4 units in Major)* [1]	
B3 Laboratory Activity *(in Major/Support)*	
B4 Math/Quant. Reasoning *(4 units in Support)* [1]	
Upper-Division B	4
Area C Arts and Humanities	**16**
Lower-division Area C courses must come from 3 different subject prefixes	
C1 Arts[8]	4
C2 Humanities[8]	4
Lower-Division C Elective: C1 or C2[8]	4
Upper-Division C	4
Area D Social Sciences	**16**
D1 American Inst. (Title 5/40404)	4
Courses in D2 must come from two different subject prefixes	
D2 Lower-Division D[9]	4
D2 Lower-Division D[9]	4
Upper-Division D	4
Area E Lifelong Learning & Self-Development	**4**
Lower-Division E	4
GE Electives in Area C or D	**4**
Select a course from Area C or D; may be lower- or upper- division	
GE Elective (Area C or D)	4
GE Elective *(4 units of Area B in Support)* [1]	

FREE ELECTIVES[4] **8**

[1] Required in Major/Support; also satisfies General Education (GE) requirement.

[2] Consultation with advisor is recommended prior to selecting electives; bear in mind your selections may impact your pursuit of post-baccalaureate studies and/or goals.

[3] Limited to a total of 4 units from Bio 300, 400, 450. At least 14 units must be upper division (300-400 level).

[4] Students planning to attend graduate or professional schools are strongly advised to meet with their advisors to ensure that they meet necessary prerequisites for entry into these programs. Additional courses in math and chemistry may be necessary.

[5] Care must be taken to ensure compliance with the "60 units of upper-division" requirement.

[6] If BIO 462 is used to meet the Senior Project Requirement, it cannot also be counted as an Approved Elective.

[7] CHEM 371 suggested for students who plan to pursue graduate school or a health professions career.

[8] C1, C2, and C Elective must come from three different subject prefixes.

[9] Second D2 must be a different subject prefix from the first D2.

ELECTIVES[2,3,4,5,6]…….……. **19**

At least 14 units must be upper division (300-400 level).

Biotechnology

ASCI 403;
BIO 202;
BIO/CHEM 441, 475, 476;
BRAE 448;
CHEM 331, 372, 373, 474;
MCRO 433

Food Microbiology

DSCI 402, 434, 444;
FSN 230, 275, 335, 341, 364, 368, 374, 474;
MCRO 421;
MCRO/WVIT 301

Medical and Public Health Microbiology

ASCI 203, 312, 321, 438, 440;
BIO 162, 406, 407, 408, 409, 410, 428, 429;
CHEM 331, 349, 377, 477;
KINE 301;
MCRO 320, 342

Microbial Ecology and Evolution

BIO 413, 414;
CHEM 341;
ENVE 434;
MCRO 436;
SS 422

Other electives for Microbiology Majors

AEPS 313, 441;
BIO 300[3], 335, 336, 361, 400[3], 434, 450[3], 462[6], 463;
BOT/AEPS 323;
CHEM 218 ***&*** 223, 418, 419;
CSC 101;
DATA 301;
MATH 162;
MCRO 100;
STAT 313, 419, 421