

Eastern New Mexico University
College of Liberal Arts & Sciences
2011-2013 Catalog

Updated _____
by _____

Date:	Major:	Biology
Name:	Emphasis:	Microbiology, Molecular Biology, & Biotechnology (MMBB)
ID#:	Minor:	Not required
Degree:		Bachelor of Science

	Course	Credits	Semester	Grade
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UNIV 101 Freshman Seminar	UNIV 101	3		
IS 151 or successful completion of ENMU computer technology assessment	IS 151	3		
HPE 142 Fundamentals of Physical Well-Being	HPE 142	1		

GENERAL EDUCATION REQUIREMENTS (41 Hrs)	Course	Credits	Semester	Grade
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bold- ENMU option only

1. Communicating Effectively: 9 hours

ENG 102 or 108 (ENMU requires grade of "C" or better)		3		
ENG 104 or 109 (ENMU requires grade of "C" or better)		3		
COMM 101, 102, or 202		3		

2. Understanding and Applying Mathematical Principles: 3 hours

MATH 113, 114, 119, 120, 124 or STAT 213		3 or 4		
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3. Science with labs: 8 hours

ANTH 245L, BIOL, CHEM, GEOL, PHYS		4		
		4		

Note: Total number of hours from categories 4 and 5 combined must be 15.

4. Social Science: 6 hours minimum, maximum of 9 hours

Note: total number of hours from categories 4 and 5 combined must be 15.				
Courses must be taken from two different disciplines.				
ANTH/GEOG 103, 233, 243; BUS 151; ECON 200, 221, 222		3		
FCS/ELED 221; PSCI 101, 102; PSY 101, 201, 202;		3		
SOC 101, 212, 215		3		

5. Humanities and Fine Arts: 6-9 hours

Courses must come from different disciplines and must include a minimum of 3 hours from category a and 3 hours from category b.

a. Fine Arts (3 hours minimum, maximum of 6)

ART 101, 131, 135, 165, 166, 210, 231, 271		3		
DNC 101, 210		3		
MUS 101, 113, 163, 241, music ensembles		3		
THTR 111, 113, 121				

b. Humanities (3 hours minimum, maximum of 6)

CDIS 144, 244, 245, 246; ENG 202, 203, 204, 211, 221, 222, 251, 252
FR 101, 102, 201, 202; GR 201, 202; HEB 201, 202;
HIST 101, 102, 121, 122, 203; HUM 221, 222
PHIL 201, 202, 211; REL 101, 103, 107;
SPAN 101, 102, 105, 201, 202, 205

6. Advisory Options: 3 hours

HPE activity courses		3		
Any courses from Category 2 above (MATH)				
Any courses from Category 5 above (HUM and FINE ARTS)				

7. Upper-division -- Diversity/Global: 3 hours

AG 312; ANTH 303, 310, 333, 340; ART 305; BUS 302, 310; CDIS 320; CJ 310; COMM 310, 330, 331; ENG 303, 319, 378, 379; FCS 310, 403; HIST 305; HPE 321; MUS 375; NURS 312; PTE 304; PSCI 330; PSY 312, REL 402; SOC 302		3		
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Biology Core Course Requirements: 23 Hours

BIOL 151/L General Biology I	_____	4	_____	_____
BIOL 152/L General Biology II	_____	4	_____	_____
BIOL 214/L Microbiology	_____	4	_____	_____
BIOL 222 Intro Cell Biology	_____	3	_____	_____
BIOL 303 General Ecology	_____	3	_____	_____
BIOL 304/L Genetics	_____	4	_____	_____
BIOL 492 Undergraduate Seminar	_____	1	_____	_____

MABB Emphasis Requirements: 19 Hours

BIOL 375 General Biotechnology	_____	3	_____	_____
BIOL 409/L Microbial Physiology	_____	4	_____	_____
BIOL 421/L Immunology	_____	4	_____	_____
BIOL 422/L Medical Microbiology	_____	4	_____	_____
BIOL 425/L Molecular Biology OR	_____	4	_____	_____
BIOL 450/L Virology	_____	4	_____	_____

Elective Biology Course: 4 Hours (300/400 level) BIOLOGY

Select a minimum of 4 upper division credit hours in a specialty biology course in consultation with the academic advisor

_____	4	_____	_____
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Required courses in other areas: 23 Hours

CHEM 151/I Gen Chem I	CHEM 151/L	4	_____	_____
CHEM 152/L Gen Chem II	CHEM 152/L	4	_____	_____
PHYS 151/L General Physics	PHYS 151/L	4	_____	_____
PHYS 152/L General Physics	PHYS 151/L	4	_____	_____
MATH 215 A Survey of Calculus	MATH 215	3	_____	_____

Select one of the following:

CHEM 251/L Integrated Organice & Biochemistry OR				
CHEM 341/L Organic Chemistry I	_____	4	_____	_____

Note: The Biology faculty strongly recommends that pre-medical students also take

CHEM 342/L (4), CHEM 401 (1), and CHEM 452 (3).

CHEM 342/L	_____	4	_____	_____
CHEM 401	_____	1	_____	_____
CHEM 452	_____	3	_____	_____

Electives to Complete a Total of 128 Credit Hours

						Final Check
Date:						
Hours Completed:						
Hours In Progress:						
U/D Hours Completed:						
U/D Hours In Progress:						
GPA:						

All course requirements in the major and minor must have a grade of "C" or better. All acceptable transfer work from a junior or community college will be recorded as lower division credit. Developmental hours are not eligible for degree credit.

_____ <i>Student Signature</i>	_____ <i>Advisor Signature</i>
_____ <i>Dean's Office Signature</i>	_____ <i>Official Degree Plan Filing Date</i>