



Eastern New Mexico University  
 College of Liberal Arts and Sciences  
 2025-2027 Catalog  
 Degree Guide Checklist

Major:	Biology	Minor:	Not Required
Emphasis:	Microbiology, Molecular Biology & Biotechnology (MMBB)	Degree:	Bachelor of Arts (B.A.) or Bachelor of Science (B.S.)

This degree guide is a guide only and is subject to revision. Before enrolling in courses, consult with an adviser and review the current ENMU-Portales catalog.

All course requirements in the major 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.

Note: The B.A. and B.S. degrees require 120 minimum total credit hours including 40 upper-division (300- or 400-level) hours and ENMU-Portales residency requirement (30 of the final 60 hours must be taken from ENMU-Portales). B.A. candidates must satisfy the language requirement (6-14 hours). Developmental and vocational/technical courses will not be counted toward graduation requirements.

**BACHELOR'S DEGREE REQUIREMENTS (6 hours)**

FYEX 1110 First-Year Seminar  
 Diversity/Global Upper-Division

**GENERAL EDUCATION REQUIREMENTS (non-teaching) 31-33 hours**

**CORE COURSE REQUIREMENTS (57-58 hours)**

Biology Requirements (26 hours):

- \* BIOL 2110/L Principles of Biology: Cellular and Molecular Biology and Laboratory
- BIOL 2120 Cellular and Molecular Biology
- BIOL 2610/L Principles of Biology: Biodiversity, Ecology and Evolution and Laboratory
- BIOL 2630 General Botany
- BIOL 303 General Ecology
- BIOL 304/L Genetics and Laboratory
- BIOL 306/L Microbiology and Laboratory
- BIOL 492 Undergraduate Seminar and Assessment (taken in the final semester)

Requirements in other areas (31-32 hours)

- \* CHEM 1215/L General Chemistry I for STEM Majors and Laboratory
- \* CHEM 1225/L General Chemistry II for STEM Majors and Laboratory
- CHEM 341/L Organic Chemistry I and Laboratory
- \* MATH 1220 College Algebra
- \* MATH 1350 Introduction to Statistics
- MATH 1430 Applications of Calculus I -OR- \* ^ MATH 1510 Calculus I
- \* PHYS 1230/L Algebra-Based Physics I and Laboratory
- \* PHYS 1240/L Algebra-Based Physics II and Laboratory

\* May be used to satisfy a General Education Requirement.  
 ^ Prerequisites for MATH 1510 (MATH 1220 and MATH 1230) must each be completed with a "C" or better.

**MMBB Emphasis Requirements (20-22 hours)**

Requirements for MMBB Emphasis (17-18 hours):

- BIOL 375 General Biotechnology
- BIOL 409/L Microbial Physiology and Laboratory
- BIOL 421 Immunology
- BIOL 422/L Medical Microbiology and Laboratory
- BIOL 425/L Molecular Biology -OR- BIOL 450 Virology

Complete an upper-division (300-/400-level) BIOL course as a specialty biology course in consultation with adviser (3-4 hours).

**ELECTIVES as needed to satisfy requirement of 120 total credit hours.**