BIOTECHNOLOGY MINOR

The Minor in Biotechnology is a flexible and career-focused option designed to complement the major in Biology or Biochemistry. This program equips students with hands-on, industry-relevant experience that prepares them for a wide range of opportunities in the rapidly growing biotechnology sector. With careful planning, the minor can be earned within the 180 credits required for the BS in Biology or the BS in Biochemistry.

Required Courses		
BIOL 301 & 301L	MICROBIOLOGY and MICROBIOLOGY LAB	5
BIOL 310	FUNDAMENTALS OF GENETICS	5
BIOL 383	BIOTECH INDUSTRY CURRENT GOOD MANUFACTURING PRACTICES	2
BIOL 384	BIOTECH INDUSTRY REGULATORY AFFAIRS	3
BIOL 385	MOLECULAR BIOTECHNIQUES	3
BIOL 484	TOPICS IN MOLECULAR BIOTECHNOLOGY	2
BIOL 485	MOLECULAR BIOTECHNOLOGY	5
BIOL 488	MOLECULAR BIOTECHNOLOGY LABORATORY	2
BIOL 490A & 490AL	BIOTECHNOLOGY CAPSTONE and BIOTECHNOLOGY CAPSTONE LAB	5
Total Credits		**32**

Students who earn a Biotechnology Minor from EWU should be able to:

- demonstrate a basic understanding of core concepts in molecular biology, genetics, cell biology, and biochemistry as they relate to biotechnology applications;
- gain proficiency in fundamental laboratory techniques used in biotechnology, such as DNA/RNA extraction, polymerase chain reaction (PCR), gel electrophoresis, and cell culture;
- develop basic skills in analyzing biological data and interpreting experimental results using bioinformatics tools and statistical methods;
- apply biotechnological principles to interdisciplinary challenges in fields such as healthcare, agriculture, environmental science, or bioengineering, demonstrating an ability to collaborate with peers from other disciplines;
- communicate biotechnology concepts, experimental results, and their implications clearly and effectively through written and oral presentations, targeted to both scientific and general audiences;
- explore the practical applications of biotechnology in industries such as pharmaceuticals, agriculture, biofuels, and environmental management, recognizing how biotechnological innovations address real-world problems.