

## **CHEMISTRY/BIOCHEMISTRY MAJOR WITH FORENSIC SCIENCE OPTION (151 CREDITS)**

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The forensic science option prepares students for entry-level positions in state and federal forensic science labs as well as for graduate and professional schools. Competitive internships at regional forensic labs are integrated into the curriculum along with research and independent study. Students must complete 46 hours of specified core courses (see footnote<sup>1</sup>) with a combined minimum GPA of 3.0 before being eligible to declare the forensic major. For all internships with law enforcement agencies, students will be required to pass a thorough background check. It is assumed that the student will enter the program ready to take MATH 161. To finish in four years, students must take an average load of more than 15 credits per quarter.

### **Required Chemistry Courses (86 credits)**

CHEM 140 Criminalistics and Forensic Chemistry (5)<sup>1</sup>  
CHEM 151 General Chemistry (5)<sup>1</sup>  
CHEM 152 General Chemistry (5)<sup>1</sup>  
CHEM 153 General Chemistry (5)<sup>1</sup>  
CHEM 304 Quantitative Analysis (6)<sup>1</sup>  
CHEM 319 Modern Inorganic Chemistry (5)  
CHEM 351 Organic Chemistry (4)  
CHEM 352 Organic Chemistry (4)  
CHEM 353 Organic Chemistry (3)  
CHEM 372 Organic Chemistry Lab I (3)  
CHEM 373 Organic Chemistry Lab II (3)  
CHEM 420 Instrumental Analysis (5)  
CHEM 421 Physical Chemistry (4)  
CHEM 422 Physical Chemistry (3)  
CHEM 431 Physical Chemistry Laboratory (1)  
CHEM 445 Topics in Forensic Science (5)  
CHEM 450 Advanced Forensic Chemistry (5)  
CHEM 480 Biochemistry (5)  
CHEM 399/495/499 Internship/Research (5)  
CHEM 491 Senior Thesis (5)<sup>2</sup>

### **Required Supporting Courses (50 credits)**

BIOL 171 Biology I (4)<sup>1</sup>  
BIOL 172 Biology II (4)<sup>1</sup>  
BIOL 173 Biology III (4)  
BIOL 270 Biological Investigation (3)<sup>1</sup>  
BIOL 301 Microbiology (5)  
BIOL 310 Fundamentals of Genetics (5)  
BIOL 438 Molecular Biology (5)  
CRIM 300 Introduction to Criminal Justice (5)  
MATH 161 Calculus I (5)<sup>1</sup>  
MATH 162 Calculus II (5)  
MATH 380 Elementary Probability and Statistics (5)

### **Physics courses—select one complete series (15 credits)**

PHYS 131 Introductory Physics I (4)<sup>1</sup>  
PHYS 132 Introductory Physics II (4)  
PHYS 133 Introductory Physics III (4)  
or PHYS 151 General Physics I (4)  
PHYS 152 General Physics II (4)  
PHYS 153 General Physics III (4)  
PHYS 161 Mechanics Laboratory (1)  
PHYS 162 Heat and Optics Laboratory (1)  
PHYS 163 Instrumentation Laboratory (1)

### **Suggested Supporting Courses** (See your chemistry/biochemistry advisor.)

CMST 201 Public Speaking (5)  
CRIM 304 Forensic Inquiry (5)  
ENGL 205 Introduction to Technical Communication (5)  
GOVT 306 Basic Concepts of Criminal Law (5)

<b>Required program credits</b>	<b>86 credits</b>
<b>Required supporting credits</b>	<b>65 credits</b>
<b>Total credits for above major</b>	<b>151 credits</b>
<b>Suggested supporting credits</b>	<b>5 credits</b>

<sup>1</sup>Core courses are to be completed before formal acceptance into the forensics major and enrollment in the forensic science internship course.

<sup>2</sup>Students are required to do research on a forensic project and to take it for 5 credits (catalog description states 4–6 credits). Projects must be approved by the forensic science program advisor.

Note: the above option will require more than 12 terms (or 4 years) to complete at an average of 15 credits per term.

**B.S. in CHEMISTRY/BIOCHEMISTRY**  
Forensic Science Option: 151 credits

NOTICE: This program requires a strong preparation in high school mathematics, chemistry and physics. GEGR = General Education Core Requirement. This sample schedule is based on the EWU Undergraduate Catalog. Courses are planned to be offered in the quarters shown, but scheduling is not guaranteed. It is assumed that the student enters the program ready to take MATH 161 (Calculus I).

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<b>FIRST YEAR</b>	F	W	S	
CHEM 151, 152, 153 (151, 152 = 2 GEGR)	5	5	5	
CHEM 140			5	
MATH 161, 162, 380	5	5	5	
GEGR (one)	5			
CPLA 101	1			
ENGL 201 (satisfies university writing requirement)		5		
<b>Total Credits</b>	<b>16</b>	<b>15</b>	<b>15</b>	<b>46</b>

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<b>SECOND YEAR</b>				
CHEM 304		6		
PHYS (131, 132, 133) or (151, 152, 153)	4	4	4	
PHYS 161, 162, 163	1	1	1	
BIOL 171, 172, 173	4	4	4	
BIOL 270 (171, 270 = 1 GEGR)			3	
GEGR (two)	5		5	
<b>Total Credits</b>	<b>14</b>	<b>15</b>	<b>17</b>	<b>46</b>

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<b>THIRD YEAR</b>				
CHEM 351, 352, 353	4	4	3	
CHEM 319		5		
CHEM 372, 373		3	3	
CHEM 495 (Summer Internship) or 499 in 4 <sup>th</sup> Year				5
BIOL 301	5			
GEGR (two)		5	5	
CRIM 300	5			
Cultural Diversity/International Studies			4	
<b>Total Credits</b>	<b>14</b>	<b>17</b>	<b>15</b>	<b>51</b>

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<b>FOURTH YEAR</b>				
CHEM 480	5			
CHEM 421, 422	4	3		
CHEM 431	1			
CHEM 450, 445	5		5	
CHEM 491 (Senior Thesis)		5		
CHEM 420			5	
BIOL 310, 438		5	5	
Cultural Diversity/International Studies		4		
<b>Total Credits</b>	<b>15</b>	<b>17</b>	<b>15</b>	<b>47</b>

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