



Northwest Missouri State University
 Department of Natural Sciences
 Chemistry: General Emphasis – Comprehensive Major – No Minor Required
 Bachelor of Science

Term 1	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
17-118	Precalculus Algebra	Precalculus Algebra: An ACT Math score of 22 or higher OR a score of PASS on the NW Algebra Review OR concurrently with Strategies for Precalculus Algebra	3	
04-102/103 OR 04-106/107	General Biology & Lab OR Principles of Biology & Lab		4	
77-101	University Seminar		1	
10-111	Composition		3	
24-114/115	General Chemistry I & Lab		4	Enrolling in General Chemistry 112/113 should be considered prior to General Chemistry I if a rigorous high school Chemistry background is absent. Similar considerations without proficiency in high school Algebra II.
Total Hours			15	
Term 2	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
24-135	Laboratory Safety		2	
10-112	Composition II	Composition I	3	
24-116/117	General Chemistry II & Lab	General Chemistry I & Lab	5	
17-120	Calculus I	Precalculus OR Precalculus Algebra AND Trigonometry	4	Students with 27 ACT math score are eligible to begin with Calculus I. Most pharmacy schools require Calculus I. Refer to pharmacy program of interests.
Total Hours			14	
Term 3	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
24-342/343	Organic Chemistry I & Lab	General Chemistry II & Lab	4	
17-121	Calculus II	Calculus I	4	
	Fine Art		3	
29-102	Fundamentals of Oral Communications		3	
Total Hours			14	

1 = a milestone course completed by end of year 1 to remain on pace to finish degree requirements in four years.

2 = a milestone course completed by end of year 2 to remain on pace to finish degree requirements in four years.

3 = a milestone course completed by end of year 3 to remain on pace to finish degree requirements in four years.

4 = a milestone courses taken in final year to complete degree requirements.



Term 4	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
24-344/345	Organic Chemistry II & Lab	Organic Chemistry I & Lab	4	
	American Experiences		3	
17-114	General Statistics		3	
10-220	Intro to Literature		3	
	Elective		3	
Total Hours			16	
Term 5	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
	Behavioral & Social Science		3	
25-120/121	Classical Physics I & Lab	Calculus I	5	
24-322/323	Analytical Chemistry & Lab	General Chemistry II & Lab	4	
	Chemistry Elective		3	Must be above 300 level
Total Hours			15	
Term 6	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
24-552/555 OR 24-522/523	Advanced Inorganic Chemistry & Lab OR Instrumental Analysis & lab	Adv Inorganic: Physical Chemistry I Instrumental: Analytical Chemistry & Lab	4	
25-230/231	Classical Physics II & Lab	Classical Physics I & Lab AND Calculus II	5	
34-102	Into to American Government		3	
	Western Experience		3	
Total Hours			15	
Term 7	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
24-592	Chemistry Seminar		1	
24-532/533	Physical Chemistry I & Lab	General Chemistry II & Lab AND Classical Physics I & Lab AND Calculus II	4	
	Behavioral & Social Science		3	
	Global Experience		3	
	Chemistry Elective		5	Must be above 300 level
Total Hours			16	
Term 8	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
	Approved Elective		4	Chosen from physics, chemistry, mathematics, biology or computer science
24-534/535	Physical Chemistry II & Lab	Physical Chemistry I & Lab	4	
	Chemistry Elective		4	Must be above 300 level
	Digital Literacy		3	
Total Hours			15	

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