



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

Term 1	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
62-107	Ecology and Developmental Foundations of Education		2	Corequisites: Prof Learning Comm I
62-113	Prof Learning Comm I		1	Corequisites: Ecology and Developmental Foundations of Education
04-106/107	Principles of Biology & Lab		4	
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.
77-101	University Seminar		1	
10-111	Composition		3	
29-102	Fundamentals of Oral Communications		3	Could be in the summer.
<b>Total Hours</b>			<b>18</b>	
Term 2	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
62-108	Introduction to Curriculum, Instruction and Assessment		2	Corequisites: Pro Learning Comm II
62-116	Pro Learning Comm II		1	Corequisites: Introduction to Curriculum, Instruction and Assessment
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.
10-112	Composition II	Composition I	3	
	Fine Art		3	Could be in the summer.
<b>Total Hours</b>			<b>18</b>	
Term 3	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
61-371	Intro to Special Ed		3	
25-120/121	Fund Classical Physics I & Lab	Calculus I	4	
24-242/243 or 24-342/343	Organic Chemistry & Lab  Organic Chemistry I & Lab	General Chemistry II & Lab	4	
17-121	Calculus II	Calculus I	5	
<b>Total Hours</b>			<b>16</b>	



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



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



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





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





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Term 4	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
61301	Dev Found of Adolescent & Content Literacy	Phase I courses passed with a 'C' or better.	2	Corequisites: Prof Learning Comm Mid/Sec IV
61301	Prof Learning Comm Mid/Sec IV	Phase I courses passed with a 'C' or better.	1	Corequisites: Dev Found of Adolescent & Content Literacy;
61301	Dev Found of Adolescent & Content Literacy	Phase I courses passed with a 'C' or better.	2	Corequisites: Prof Learning Comm Mid/Sec IV
08-299	Educational Psy		3	Could be in the summer.
25-230/231	Fund Classical Physics II & Lab	Classical Physics I & Lab AND Calculus II	4	
	Civics: History		3	
	Humanities		3	
<b>Total Hours</b>			<b>16</b>	
Term 5	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
61311	Designing Integrated MS & Secondary Curriculum	Phase I courses passed with a 'C' or better.	1	Corequisites: Classroom and Behavior Management Strategies; Professional Learning Community for MS & Secondary V
61310	Classroom and Behavior Management Strategies	Phase I courses passed with a 'C' or better.	1	Corequisites: Designing Integrated MS & Secondary Curriculum; Professional Learning Community for MS & Secondary V
61312	Professional Learning Community for MS & Secondary V	Phase I courses passed with a 'C' or better.	1	Corequisites: Designing Integrated MS & Secondary Curriculum; Classroom and Behavior Management Strategies
24-322/323	Analytical Chemistry & Lab	General Chemistry II & Lab	4	
24-370	Chemistry Practicum		1	
	Social Science		3	
34-102	Into to American Government		3	
10-220	Intro to Literature		3	Could be in the summer.
<b>Total Hours</b>			<b>17</b>	

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Term 6	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
61324	Intervention and Assessment: Literacy, Special Populations, & English Language	Phase I courses passed with a 'C' or better.	2	Corequisites: Professional Learning Community VI;
61-325	Professional Learning Community VI	Phase I courses passed with a 'C' or better.	1	Corequisites: Intervention and Assessment: Literacy, Special Populations, & English Language
24-135	Laboratory Safety	General Chemistry I & Lab	2	SUMMER ONLINE ONLY.
24-534/535	Physical Chemistry II & Lab	Physical Chemistry I & Lab	4	Permission from Instructor.
24-513/514	Atoms Green Env Chem & Lab	Analytical Chemistry & Lab	4	Spring ONLY
28-550	History of Science and Teachonolgy	15 hours of science credit.	3	SPRING ONLY course
<b>Total Hours</b>			<b>16</b>	
Term 7	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
61-431	Secondary School Practicum	Phase II courses passed with a 'C' or better. Admitted to Teacher Education.	1	
61-569	Multiculturalism in Ed	Admitted to Teacher Education.	3	
08-322	Adolescent Psychology	Educational Psy	2	
28-580	Methods Secondary School Science	Admitted to Teacher Education.	3	FALL ONLY course
24-362	Elementary Biochmiestry	Organic Chemistry I & Lab	3	
	Humanities		3	
	Digital Literacy		3	
<b>Total Hours</b>			<b>18</b>	
Term 8	Course Title/Description	Pre-requisite	Cr Hrs	Milestone/Notes
61-472	Directed Teaching in the Secondary School	Maintain GPA; Complete MoCA	10	Corequisites: Professional Capstone
62-432	Professional Capstone	Maintain GPA; Complete MoCA	2	Corequisites: Directed Teaching in the Secondary School
27-112/113 or 27-114/115	General Geology and Lab General Earth Science and Lab		4	Could be in the summer.
<b>Total Hours</b>			<b>16</b>	

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