



**CHEMISTRY, GRADES 9-12**

EDUCATOR PREPARATION PROGRAM NAME <b>MISSOURI BAPTIST UNIVERSITY</b>	EDUCATOR PREPARATION PROGRAM CODE <b>041538</b>
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**INSTRUCTIONS**

Please complete Educator Preparation Program (EPP) Name & EPP Code above.

Certification Requirements:

- Course Number – List the course number(s) for the course(s) or groups of competencies that align with the specific section of the requirements. It is possible to have more than one course or group listed.
- Course Title – List the course title(s) for the course(s) or groups of competencies that align with the specific section of the requirements. It is possible to have more than one course or group listed.
- Semester Hours – List the number of semester hours for each specific section. It is possible to use decimals (to the nearest tenth) to indicate partial use of a course to meet a requirement. The total number of semester hours must meet or exceed the minimum required number of semester hours.

Email the completed cover sheet, curriculum matrix, and advising/program information to [DESE.MoSPETransition@dese.mo.gov](mailto:DESE.MoSPETransition@dese.mo.gov) on or before the date established in the Transition Plan.

QUESTIONS: Contact Educator Preparation, 573-751-1668 or [DESE.MoSPETransition@dese.mo.gov](mailto:DESE.MoSPETransition@dese.mo.gov)

**A. Professional Requirements (Minimum of 26 semester hours)**

1. Content Planning and Delivery

	Course Number	Course Title	Semester Hours
a. Curriculum and Instructional Planning	ECTA 323	Curriculum, Assessment, and Data-based Decision Making	1
b. Instructional Strategies and Techniques in Content Area Specialty	EDMS 483/583	Teaching Science for Middle/Secondary: Seminar and Field Experience	3
c. Assessment, Student Data, and Data-Based Decision-Making	ECTA 323	Curriculum, Assessment, and Data-based Decision Making	1
d. Strategies for Content Literacy	EDRD 423/523	Integration of Literacy in the Content Areas	2
e. Critical Thinking and Problem Solving	EDUC 201	Professional Growth and Folio Development	1
	EDUC 303	Methods of Teaching and Differentiated Instruction	1
	EDUC 373 OR EDUC 573	Technology and Instructional Media OR Applications of Technology in Teaching and Learning	3
f. English Language Learning	EDUC 203	Teaching in a Diverse Society: Seminar and Field Experience	1
	EDRD 423/523	Integration of Literacy in the Content Areas Students transferring in a course for EDRD 423/523 which does not include a field experience working with English language learners must complete EDCL 420/520 Field Experience with English Language Learners.	1

2. Individual Student Needs

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	PSYC 313 OR PSYC 553	Human Growth and Development OR Advanced Human Development	3
	EDPS 383	Psychology of Teaching and Learning	1
	EDPS 453/553	The Exceptional Child	1
	EDPS 453/553	The Exceptional Child	2
b. Psychology/Education of the Exceptional Child	EDPS 453/553	The Exceptional Child	2
c. Differentiated Learning	EDUC 303	Methods of Teaching and Differentiated Instruction	2
d. Classroom Management	ETOP 423/523	Classroom and Behavior Management	2
e. Cultural Diversity	EDUC 203	Teaching in a Diverse Society: Seminar and Field Experience Students transferring in a course for EDUC 203 which does not include an embedded diversity field experience, must complete EDCL 200 Teaching in a Diverse Society Field Experience.	2

f. Educational Psychology	EDPS 383	Psychology of Teaching and Learning	1
<b>3. Schools and the Teaching Profession</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Consultation and Collaboration	ECTA 323	Curriculum, Assessment, and Data-based Decision Making	1
	EDPS 383	Psychology of Teaching and Learning	0.5
	EDUC 210 AND 410/510	Teaching Field Experience I and II Seminar	0
	EDUC 401	Professional Growth and Folio Development II	1
	ETOP 423/523	Classroom and Behavior Management	0.5
b. Legal/Ethical Aspects of Teaching	EDPS 383	Psychology of Teaching and Learning	0.5
	EDUC 410/510	Teaching Field Experience II Seminar	0
	ETOP 423/523	Classroom and Behavior Management	0.5

<b>4. Secondary Literacy (Minimum of six semester hours)</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Reading and Writing in the Content Area	EDRD 423/523	Integration of Literacy in the Content Areas	3
b. Instructional Interventions for Students with Reading Deficits	EDRD 463/563	Reading and Writing Strategies for Middle/Secondary Content Areas	3
<b>Professional Requirements - Total Semester Hours</b>			<b>35</b>

<b>B. Field and Clinical Experiences (Minimum of ten semester hours)</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
1. Early Field Experiences (Minimum of one semester hour with a minimum of 30 clock hours)	EDCL 211	Teaching Field Experience I	1
	EDUC 210	Teaching Field Experience I Seminar	0
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	EDCL 411/511	Teaching Field Experience II	1
	EDUC 410/510	Teaching Field Experience II Seminar	0
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	ESCL 4712/5712	Student Teaching: Secondary	12
	EDUC 471	Student Teaching Seminar	1
<b>Field and Clinical Experiences - Total Semester Hours</b>			<b>15</b>

<b>C. Chemistry Content Knowledge Area (Minimum of 35 semester hours)</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
1. History/Philosophy of Science and Technology (Minimum of three semester hours)	IDST 313	History and Philosophy of Science and Technology	3
2. Chemistry Coursework – Minimum of 20 semester hours which must include:			
a. Inorganic Chemistry	CHEM 443	Inorganic Chemistry	3
b. Analytical Chemistry	CHEM 332 AND CHEM 343	Analytical Chemistry AND Analytical Chemistry Lab	5
c. Organic Chemistry	CHEM 313 AND CHEM 312 AND CHEM 310	Organic Chemistry I AND Organic Chemistry I Lab AND Organic Chemistry I Problem Solving	5
d. Physical Chemistry	CHEM 413	Physical Chemistry I	3
e. Biochemistry	CHEM 443 AND CHEM 441	Biochemistry AND Biochemistry Lab	4
f. Chemistry Electives	May choose any of the following: CHEM 323+322 CHEM 372-374 CHEM 383 CHEM 423 CHEM 453+452 CHEM 463 CHEM 472+462 CHEM 481-486	May choose any of the following:  Organic Chemistry II & Lab Instructional Methods & Problems in CHEM Advanced Topics in Chemistry Physical Chemistry II Modern Instrumental Analysis & Lab Industrial Chemistry Molecular Modeling & Lab Chemistry Research	To total 20 hours as needed
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Biology	BIOL 113 AND 111 OR BIOL 123 AND 121	General Biology I and Lab OR General Biology II and Lab	4

b. Physics	PHYS 213 AND PHYS 211 (PHYS 223 AND PHYS 121)	General Physics I AND Lab  (General Physics II AND Lab-Pre-requisite for CHEM 413 at MBU)	4-8
c. Earth Science	PHYS 123 AND PHYS 122	Geology and Earth Science AND Geology and Earth Science Lab	5
d. Environmental Science	BIOL 323 and 321 OR BIOL 323B	Environmental Science and Conservation OR Ecology	3-4
<b>Content Knowledge Area - Total Semester Hours</b>			<b>39-44</b>

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