



MISSOURI DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION  
OFFICE OF EDUCATOR QUALITY – EDUCATOR PREPARATION

**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 grouplisted.
- 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 grouplisted.
- 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	*Hours included below in 4a
e. Critical Thinking and Problem Solving	EDUC 201	Professional Growth & Folio Development I	1
	EDUC 200	Continuing Portfolio Development for Teacher Candidates	0
	EDUC 303	Methods of Teaching and Differentiated Instruction	1
	EDUC 373 OR	Technology and Instructional Media OR	3
	EDUC 573	Applications of Technology in Teaching and Learning	
f. English Language Learning	EDUC 203	Teaching in a Diverse Society	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	*Hours included below in 4a

**2. Individual Student Needs**

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	PSYC 313 OR	Human Growth and Development OR Advanced Human Development	3
	PSYC 553		
	EDPS 383	Psychology of Teaching and Learning	1
	EDPS 453/553	The Exceptional Child	1
b. Psychology/Education of the Exceptional Child	EDTR 413/513	Trauma Informed Classroom	1
	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
	EDTR 413/513	Trauma Informed Classroom	1
e. Cultural Diversity	EDUC 203	Teaching in a Diverse Society	2
f. Educational Psychology	EDPS 383	Psychology of Teaching and Learning	1

**3. Schools and the Teaching Profession**

	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	ECTA 323	Curriculum, Assessment, and Data-based Decision Making	1

	EDPS 383	Psychology of Teaching and Learning	0.5
	EDTR 413/513	Trauma Informed Classroom	1
	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

**4. Secondary Literacy (Minimum of 6 semester hours)**

	Course Number	Course Title	Semester Hours
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>38</b>

**B. Field and Clinical Experiences (Minimum of 10 semester hours)**

	Course Number	Course Title	Semester Hours
1. Early Field Experiences (Minimum of 1 semester hour with a minimum of 30 clock hours)	EDCL 211 *EDCL 220	Teaching Field Experience I *Teaching Field Experience <i>(required for transfer students who do not have a MEES (or equivalent) evaluation for Field I)</i>	1 0
	EDUC 210	Teaching Field Experience I Seminar	0
2. Mid-Level Field Experiences (Minimum of 1 semester hour with a minimum of 45 clock hours)	EDCL 411/511 EDUC 410/510	Teaching Field Experience II Teaching Field Experience II Seminar	1 0
3. Culminating Clinical Experiences (Minimum of 8 semester hours with a minimum of 12 weeks in 1 placement)	ESCL 4712/5712 EDUC 470	Student Teaching: Secondary Student Teaching Professional Development Seminar	12 0
<b>Field and Clinical Experiences - Total Semester Hours</b>			<b>14</b>

**C. Chemistry Content Knowledge Area (Minimum of 35 semester hours)**

	Course Number	Course Title	Semester Hours
1. History/Philosophy of Science and Technology (Minimum of 3 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	BCHM 443 AND BCHM 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 121	Geology and Earth Science AND Geology and Earth Science Lab	4
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>38-43</b>