



**CHEMISTRY 9-12 - MASTER OF ARTS IN TEACHING (MAT)**

EDUCATOR PREPARATION PROGRAM NAME <b>MISSOURI STATE UNIVERSITY</b>	EDUCATOR PREPARATION PROGRAM CODE <b>119119</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	SFR797	Advanced Studies in Teaching and Learning	2(9)
b. Instructional Strategies and Techniques in Content Area Specialty	SFR797	Advanced Studies in Teaching and Learning	2(9)
c. Assessment, Student Data, and Data-Based Decision-Making	SFR797	Advanced Studies in Teaching and Learning	2(9)
d. Strategies for Content Literacy	RDG710	Content Area Literacy	.25(3)
e. Critical Thinking and Problem Solving	SFR797	Advanced Studies in Teaching and Learning	1(9)
f. English Language Learning	RDG710 RDG574 or RDG640	Content Area Literacy Analysis and Correction of Difficulties in Literacy	0(3) .5(3)

**2. Individual Student Needs**

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	PSY710	Psychology of Education	1.25(3)
b. Psychology/Education of the Exceptional Child	SPE715	Foundations in Special Education	3
c. Differentiated Learning	SFR797 RDG710 RDG574 or RDG640	Advanced Studies in Teaching and Learning Content Area Literacy Analysis and Correction of Difficulties in Literacy	1(9) .25(3) 0(3)
d. Classroom Management	SFR797 PSY710 SEC783	Advanced Studies in Teaching and Learning Psychology of Education Internship in Teaching I	.25(9) .25(3) 1(3)
e. Cultural Diversity	RDG560 or RDG660 or RDG665  SFR797	Diversity Issues in Literacy and Content Area Instruction  Cultural Diversity in Literacy and Instruction: Classrooms and Community Advanced Studies in Teaching and Learning	2(3)  2(3) .25(9)
f. Educational Psychology	PSY710	Psychology of Education	1.5(3)

**3. Schools and the Teaching Profession**

	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	SFR797 RDG710 SEC784	Advanced Studies in Teaching and Learning Content Area Literacy Internship in Teaching II	.25(9) 0(3) 1(10)
b. Legal/Ethical Aspects of Teaching	SFR797	Advanced Studies in Teaching and Learning	.25(9)

4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	RDG710	Content Area Literacy	2.5(3)
	RDG560 or RDG660 or RDG665	Diversity Issues in Literacy and Content Area Instruction  Cultural Diversity in Literacy and Instruction: Classrooms and Community	.5(3)  .5(3)
b. Instructional Interventions for Students with Reading Deficits	RDG574 or RDG640	Analysis and Correction of Difficulties in Literacy	2.5(3)
	RDG560 or RDG660 or RDG665	Diversity Issues in Literacy and Content Area Instruction	.5(3)
		Cultural Diversity in Literacy and Instruction: Classrooms and Community	.5(3)

**Professional Requirements - Total Semester Hours**

**26**

B. Field and Clinical Experiences (Minimum of ten semester hours)			
	Course Number	Course Title	Semester Hours
a. Early Field Experiences (Minimum of one semester hour with a minimum of 30 clock hours)	SEC783	Internship in Teaching I	1(3)
b. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	SEC783	Internship in Teaching I	1(3)
c. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	SEC784	Internship in Teaching II	9(10)

**Field and Clinical Experiences - Total Semester Hours**

**11**

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 three semester hours)	SCI505	Intellectual Foundations of Science and Technology	3
2. Chemistry Coursework – Minimum of 20 semester hours which must include:			
a. Inorganic Chemistry	CHM375	Inorganic Chemistry	3
b. Analytical Chemistry	CHM302	Introduction to Analytical Chemistry	5
c. Organic Chemistry	CHM201/202	Essentials of Organic Chemistry/Lab	5
	or CHM342 and CHM343	Organic Chemistry I and Organic Chemistry II	5 5
	or CHM342 and CHM344	Organic Chemistry I and Organic Chemistry II	5 3
d. Physical Chemistry	CHM505	Fundamentals of Physical Chemistry	4
e. Biochemistry	CHM352	Introduction to Biochemistry	3
f. Chemistry Electives	CHM160/161	General Chemistry I/Lab	5
	CHM170/171	General Chemistry II/Lab	4
	CHM435	Investigations in Chemistry for Teachers	1
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Biology	BIO121	General Biology I	4
b. Physics	PHY123 and PHY124	Introduction to Physics I Introduction to Physics II	4 4
		Choose one (1)	
c. Earth Science	GLG110	Principles of Geology	4
	GLG171	Environmental Geology	3
d. Environmental Science	CHM460	Environmental Chemistry : Water and Land	3

**Content Knowledge Area - Total Semester Hours**

**MAT=51-57**

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