



CHEMISTRY, GRADES 9-12

EDUCATOR PREPARATION PROGRAM NAME TRUMAN STATE UNIVERSITY	EDUCATOR PREPARATION PROGRAM CODE 122122
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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 on or before the date established in the Transition Plan.

QUESTIONS: Contact Educator Preparation, 573-751-1668 or 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	ED 393 STEM 608 G ED 609 G ED 632 G	Clinical Experiences in Teaching Management of Instruction Internship Instructional Strategies	3 3
b. Instructional Strategies and Techniques in Content Area Specialty	STEM 608 G ED 603 G	Management of Instruction Content Academic Literacy	3
c. Assessment, Student Data, and Data-Based Decision-Making	ED 601 G ED 632 G	Measurement and Evaluation Research/Applied Education Psychology	3 4
d. Strategies for Content Literacy	ED 603 G	Content Academic Literacy	
e. Critical Thinking and Problem Solving	ED 389 ED 393 ENG 190 STEM 608 G	Foundations of Education Clinical Experiences in Teaching Writing as Critical Thinking Management of Instruction	3
f. English Language Learning	ED 603 G	Content Academic Literacy	

2. Individual Student Needs

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	ED 593 ED 605 G	Psychological Foundations of Education Psychology of Exceptional Children	3
b. Psychology/Education of the Exceptional Child	ED 605 G	Psychology of Exceptional Children	3
c. Differentiated Learning	ED 609 G ED 632 G ED 393 ED 593 STEM 608 G	Internship Research/Applied Education Psychology Clinical Experiences in Teaching Psychological Foundations of Education Management of Instruction	
d. Classroom Management	ED 393 STEM 608 G ED 593	Clinical Experiences in Teaching Management of Instruction Psychological Foundations of Education	
e. Cultural Diversity	ED 388 ED 389 ED 393 ED 593 ED 603 G STEM 608 G	Exploratory Field Experiences Foundations of Education Clinical Experiences in Teaching Psychological Foundations of Education Content Academic Literacy Management of Instruction	

f. Educational Psychology	ED 593 ED 632 G	Psychological Foundations of Education Research/Applied Education Psychology	
3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	ED 393 STEM 608 G	Clinical Experiences in Teaching Management of Instruction	
b. Legal/Ethical Aspects of Teaching	ED 389 ED 593	Foundations of Education Psychological Foundations of Education	3

4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	ED 603 G	Content Academic Literacy	
b. Instructional Interventions for Students with Reading Deficits	ED 624 G	Instructional Interventions for Secondary Students with Reading Deficiencies	3
Professional Requirements - Total Semester Hours			31

B. Field and Clinical Experiences (Minimum of ten semester hours)			
	Course Number	Course Title	Semester Hours
1. Early Field Experiences (Minimum of one semester hour with a minimum of 30 clock hours)	ED 388	Exploratory Field Experiences	1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	ED 394 STEM 608 G	Experiences in Classroom Teaching Management of Instruction	1
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	ED 609 G	Internship	8-17
Field and Clinical Experiences - Total Semester Hours			10-17

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)	HIST 393 <u>or</u> HIST 394	History of Science I History of Science II	3
	AND NASC 501 (G)	Philosophy of Science	3
2. Chemistry Coursework – Minimum of 20 semester hours which must include:			
a. Inorganic Chemistry	CHEM 130 CHEM 131	Chemical Principles I Chemical Principles II	4 4
b. Analytical Chemistry	CHEM 222 CHEM 322	Introduction to Quantitative Analysis Instrumental Analysis	4 4
c. Organic Chemistry	CHEM 329 <u>and</u> CHEM 330	Organic Chemistry I <u>and</u> Organic Chemistry I Lab	3 1
	CHEM 331 <u>and</u> CHEM 332	Organic Chemistry II <u>and</u> Organic Chemistry II Lab	3 1
	CHEM 333 (may be taken instead of CHEM 330 and CHEM 332)	Organic Chemistry Lab	2
	d. Physical Chemistry w/lab	CHEM 323 <u>and</u> CHEM 324 CHEM 325 <u>and</u> CHEM 326	Physical Chemistry I <u>and</u> Physical Chemistry I lab Physical Chemistry II <u>and</u> Physical Chemistry II lab
e. Biochemistry	CHEM 310 CHEM 335	Modern Methods in Biochemistry Biochemistry I: Structure and Function	2 3

f. Chemistry Electives	CHEM 222 CHEM 328 CHEM 422 CHEM 430 CHEM 431 CHEM 473 CHEM 474 CHEM 476	Glass Blowing Forensic Science Advanced Topic in Organic Chemistry Advanced Physical Chemistry Advanced Analytical Chemistry Inorganic Chemistry Inorganic Chemistry Lab I Advanced Inorganic Chemistry	1 3 3 3 3 3 2 3 (2 hours required)
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Biology	BIOL 100 <u>or</u> BIOL 107 <u>or</u> CHEM 435	Biology Introduction to Biology Biochemistry II: Metabolism	4
b. Physics	PHYS 195 <u>or</u> PHYS 185 and PHYS 196 <u>or</u> PHYS 186	Physics with Calculus <u>or</u> College Physics I and Physics with Calculus II <u>or</u> College Physics II	4-5 4-5
c. Earth Science	PHYS 131 <u>or</u> PHYS 245 <u>or</u> NASC 140	Introduction to Astronomy Meteorology Physical Geology	4
d. Environmental Science	ENVS 200 <u>or</u> ENVS 210 <u>or</u> BIOL 301 <u>or</u> BIOL 363	Introduction to Environmental Science <u>or</u> Environmental Science <u>or</u> Introduction to Ecology <u>or</u> Human Ecology	3-4
Content Knowledge Area - Total Semester Hours			64-67

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