



UNIFIED SCIENCE: BIOLOGY, GRADES 9-12 - MAT

EDUCATOR PREPARATION PROGRAM NAME LINDENWOOD UNIVERSITY	EDUCATOR PREPARATION PROGRAM CODE 018759
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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	EDU 52110	Middle School/High School Classroom Teaching and Technology	3
b. Instructional Strategies and Techniques in Content Area Specialty	EDU 53530	Secondary Methods of Teaching Science	3
c. Assessment, Student Data, and Data-Based Decision-Making	EDU 58404	Advanced Measurement and Evaluation to Enhance Learning	3
d. Strategies for Content Literacy	EDU 58700	Reading/Writing Across the Curriculum	3
	OR		
	EDU 50700	Reading in the Content Area	3
	OR		
	EDU 50710	Content Literacy for Diverse Learners	3
	OR		
	EDU 50705	Methods of Teaching Reading in the Content Area	3
e. Critical Thinking and Problem Solving	EDU 52110	Middle School/High School Classroom Teaching and Technology	3
	EDU 54310	Middle School/High School Differentiation and Classroom Management	3
f. English Language Learning	EDU 50710	Content Literacy for Diverse Learners	3

2. Individual Student Needs

	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	EDU 50200	Psychology of Teaching and Learning	3
b. Psychology/Education of the Exceptional Child	EDU 54100	Education of the Exceptional Child	3
c. Differentiated Learning	EDU 52110	Middle School/High School Classroom Teaching and Technology	3
	EDU 54310	Middle School/High School Differentiation and Classroom Management	3
d. Classroom Management	EDU 52110	Middle School/High School Classroom Teaching and Technology	3
	EDU 54310	Middle School/High School Differentiation and Classroom Management	3
e. Cultural Diversity	EDU 50000	Foundations of K-12 Education	3
	EDU 50710	Content Literacy for Diverse Learners	3
f. Educational Psychology	EDU 50200	Psychology of Teaching and Learning	3

3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	EDU 52110	Middle School/High School Classroom Teaching and Technology	3
	EDU 54310	Middle School/High School Differentiation and Classroom Management	3
	EDU 58404	Advanced Measurement and Evaluation to Enhance Learning	3
b. Legal/Ethical Aspects of Teaching	EDU 50000	Foundations of K-12 Education	3
	EDU 52110	Middle School/High School Classroom Teaching and Technology	3
	EDU 58404	Advanced Measurement and Evaluation to Enhance Learning	3
4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	EDU 58700	Reading/Writing Across the Curriculum	3
b. Instructional Interventions for Students with Reading Deficits	EDU 50710	Content Literacy for Diverse Learners	3
Professional Requirements - Total Semester Hours			27
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)	EDU 50000	Foundations of K-12 Education	(1)
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	EDU 54310	Middle School/High School Differentiation and Classroom Management	(1)
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	EDU 60599	Field Experience, Student Teaching	12
Field and Clinical Experiences - Total Semester Hours			12
C. Unified Science: Biology Content Knowledge Area (Minimum of 50 semester hours)			
	Course Number	Course Title	Semester Hours
1. History/Philosophy of Science and Technology (three semester hours)	SCI 21200	History of Science	3
	OR PHL 26500	Philosophy of Science	3
2. Biology – six semester hours which must include:			
a. Zoology with lab	BSC 32400	Animal Biology (lab included)	2
b. Botany with lab	BSC 32000	Plant Biology (lab included)	2
3. Chemistry with labs (six semester hours)	CHM 23000	General Chemistry 1	3
	CHM 23100	General Chemistry 2	3
	CHM 24100	General Chemistry 2 Laboratory	1
4. Physics with labs (six semester hours)	PHY 25100	Introductory Physics I (lab included)	4
	PHY 25200	Introductory Physics II (lab included)	4
5. Earth Science – six semester hours which must include:			
a. Geology	ESC 10000	Physical Geology with Lab	4
b. Meteorology	ESC 11000	Intro Meteorology	3
	ESC 11100	Meteorology Lab	1
6. Environmental Science (three semester hours)	BSC 46500	General Ecology	4
7. Additional Biology coursework – 20 semester hours which must include:			
a. Zoology	BSC 32400	Animal Biology	2
b. Botany	BSC 32000	Plant Biology	2
c. Genetics	BSC 40800	Genetics	4
d. Cell/Biochemistry	BSC 24400	Introduction to Cellular and Molecular Biology	2
e. Microbiology	BSC 24400	Introduction to Cellular and Molecular Biology	2
f. Anatomy and Physiology	BSC 22700	Human Anatomy and Physiology I	4

g. Ecology	BSC 24800	Introduction to Ecology and Evolution	2
h. Evolution	BSC 24800	Introduction to Ecology and Evolution	2
Content Knowledge Area - Total Semester Hours			54

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