



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

UNIFIED SCIENCE: BIOLOGY, GRADES 9-12

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 32100	Middle School/High School Classroom Teaching and Technology	3
b. Instructional Strategies and Techniques in Content Area Specialty	EDU 33000	Secondary Methods of Teaching Science	3
c. Assessment, Student Data, and Data-Based Decision-Making	EDU 40400	Advanced Measurement and Evaluation to enhance Learning	3
d. Strategies for Content Literacy	EDU 38700	Reading/Writing Across the Curriculum	3
	OR	OR	
	EDU 30700	Reading in the Content Area	3
	OR	OR	
	EDU 30710	Content Literacy for Diverse Learners	3
e. Critical Thinking and Problem Solving	OR	OR	
	EDU 30705	Methods of Teaching Reading in the Content Area	3
	EDU 32100	Middle School/High School Classroom Teaching & Technology	3
	EDU 34300	Middle School/High School Differentiation and Classroom Management	3
f. English Language Learning	EDU 30710	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 20200	Psychology of Teaching and Learning	3
b. Psychology/Education of the Exceptional Child	EDU 34100	Education of the Exceptional Child	3
c. Differentiated Learning	EDU 32100	Middle School/High School Classroom Teaching & Technology	3
	EDU 34300	Middle School/High School Differentiation and Classroom Management	3
d. Classroom Management	EDU 32100	Middle School/High School Classroom Teaching & Technology	3
	EDU 34300	Middle School/High School Differentiation and Classroom Management	3
e. Cultural Diversity	EDU 10000	Orientation to Educational Experiences	3
	EDU 30710	Content Literacy for Diverse Learners	3
f. Educational Psychology	EDU 20200	Psychology of Teaching and Learning	3

3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	EDU 32100	Middle School/High School Classroom Teaching and Technology	3
	EDU 34300	Middle School/High School Differentiation and Classroom Management	3
	EDU 40400	Advanced Measurement and Evaluation to Enhance Learning	3
b. Legal/Ethical Aspects of Teaching	EDU 10000	Orientation to Educational Experiences	3
	EDU 32100	Middle School/High School Classroom Teaching and Technology	3
	EDU 40400	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 38700	Reading/Writing Across the Curriculum	3
b. Instructional Interventions for Students with Reading Deficits	EDU 30710	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 11100	School Observation	1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	EDU 38000	Pre-student teaching Practicum	1
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	EDU 41000	Field Experience: Student Teaching	12
Field and Clinical Experiences - Total Semester Hours			14
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

The Department of Elementary and Secondary Education does not discriminate on the basis of race, color, religion, gender, national origin, age, or disability in its programs and activities. Inquiries related to Department programs and to the location of services, activities, and facilities that are accessible by persons with disabilities may be directed to the Jefferson State Office Building, Office of the General Counsel, Coordinator – Civil Rights Compliance (Title VI/Title IX/504/ADA/Age Act), 6th Floor, 205 Jefferson Street, P.O. Box 480, Jefferson City, MO 65102-0480; telephone number 573-526-4757 or TTY 800-735-2966 email civilrights@dese.mo.gov.