



TECHNOLOGY AND ENGINEERING, 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 I

	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 53539	Secondary Methods of Teaching Technology and Engineering	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	OR	
	EDU 50700	Reading in the Content Area	3
	OR	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 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. Technology and Engineering Content Knowledge Area (Minimum of 36 semester hours)			
	Course Number	Course Title	Semester Hours
1. Communication Technology (six semester hours)	EDI 10000	Engineering Drawing (SLCC-FV)	3
	EDI 11600	Construction Blueprint Reading (SLCC-FV)	3
2. Energy and Power (six semester hours)	EDI 11000	Technical Electric Circuits I (SLCC-FV)	4
	EDI 11100	Technical Electric Circuits II (SLCC-FV)	4
	EDI 24010	Transmission and Distribution of Power (SLCC-FV)	3
	EDI 25501	Fluid Power (SLCC-FV)	3
3. Materials and Processes Technology (six semester hours)	EDI 15100	Manufacturing Processes I (SLCC-FV)	3
	EDI 15200	Manufacturing Processes II (SLCC-FV)	3
	EDI 12103	Computer Integrated Manufacturing (SLCC-FV)	3
	EDI 10100	Welding Technology (SLCC-FV)	3
4. Organization and Administration (six semester hours)	EDI 12101	Principles of Engineering (SLCC-FV)	3
	EDI 30100	Construction Materials and Methods (SLCC-FV)	3
5. Electives (12 semester hours)	EDI 10400	Electronic Drafting (SLCC-FV)	2
	EDI 13101	Computer Art Studio (SLCC-FV)	3
	EDI 13300	Introduction to AutoCAD I (SLCC-FV)	2
	EDI 13301	Graphic Design I (SLCC-FV)	3
	EDI 13900	3-D AutoCAD with Autoshade (SLCC-FV)	2
	EDI 14100	Introduction to AutoCAD II (SLCC-FV)	2
	EDI 14500	Computer Solids Modeling (SLCC-FV)	2
	EDI 14700	Introduction to Engineering Design (SLCC-FV)	3
	EDI 16500	Photography I (SLCC-FV)	3
	EDI 23000	Introduction to 3-D Solid Modeling for Design (SLCC-FV)	4
	EDI 25500	Advanced Computer Aided Drafting (SLCC-FV)	3
	EDI 13000	Electric Circuits I (SLCC-FV)	4
	EDI 13100	Electric Circuits II (SLCC-FV)	4
	EDI 13200	Electronic Devices (SLCC-FV)	5
	EDI 22300	Basic Hydraulics I (SLCC-FV)	2
	EDI 24101	Transmission and Distribution of Power (SLCC-FV)	3
	EDI 25501	Fluid Power (SLCC-FV)	3
	EDI 10100	Welding Technology (SLCC-FV)	3
	EDI 10800	Construction Methods (SLCC-FV)	3
	EDI 14001	Introduction to Robotics (SLCC-FV)	3
EDI 15100	Manufacturing Processes I (SLCC-FV)	3	
EDI 15200	Manufacturing Processes II (SLCC-FV)	3	
EDI 24100	Numerical Control Programming (SLCC-FV)	3	
EDI 24900	Materials and Metallurgy (SLCC-FV)	3	

	EDI 12200	Engineering Design and Development (SLCC-FV)	3
	EDI 14800	Solid Modeling with Unigraphics (SLCC-FV)	2
	EDI 25600	Solid Modeling with CATIA (SLCC-FV)	2
Content Knowledge Area - Total Semester Hours			36

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