



PHYSICS, GRADES 9-12

EDUCATOR PREPARATION PROGRAM NAME WILLIAM JEWELL COLLEGE	EDUCATOR PREPARATION PROGRAM CODE 062273
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***Courses marked with an asterisk address part of the competency, but the primary focus of the course is in another competency. Therefore, we list the course in multiple competencies but credit is only denoted in one to three focus areas.**

INSTRUCTIONS

Please complete Educator Preparation Program (EPP) Name & EPP Code above. The EPP Code may be located at <https://dese.mo.gov/sites/default/files/EPP-Code-Name.pdf>

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 220 or EDU 216 (<i>transition</i>) EDU 275 EDU 501	High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> AND Instructional Design & Assessment (4 credit course) Differentiated Instruction (4 credit course)	1.00 2.00 *
b. Instructional Strategies and Techniques in Content Area Specialty	EDU 220 or EDU 216 (<i>transition</i>) EDU 280	High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> AND Disciplinary Literacy & Methods of Instruction (5 credit course)	1.00 1.00
c. Assessment, Student Data, and Data-Based Decision-Making	EDU 275 EDU 501	Instructional Design & Assessment (4 credit course) Differentiated Instruction (4 credit course)	2.00 *
d. Strategies for Content Literacy	EDU 280 EDU 308	Disciplinary Literacy & Methods of Instruction (5 credit course) Literacy Interventions in the Secondary Classroom (4 credit course)	1.00 1.00
e. Critical Thinking and Problem Solving	EDU 220 or EDU 216 (<i>transition</i>) EDU 275 EDU 280	High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> AND Instructional Design & Assessment (4 credit course) Disciplinary Literacy & Methods of Instruction (5 credit course)	1.00 * *

f. English Language Learning	EDU 206 or EDU 234 (<i>transition</i>) EDU 501	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i> AND Differentiated Instruction (4 credit course)	* 1.00
2. Individual Student Needs			
	Course Number	Course Title	Semester Hours
a. Psychological Development of the Child and Adolescent	EDU 206 or EDU 234 (<i>transition</i>)	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i>	1.00
b. Psychology/Education of the Exceptional Child	EDU 206 or EDU 234 (<i>transition</i>)	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i>	2.00
c. Differentiated Learning	EDU 501	Differentiated Instruction (4 credit course)	2.00
d. Classroom Management	EDU 220 or EDU 216 (<i>transition</i>) EDU 501	High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> AND Differentiated Instruction (4 credit course)	1.00 1.00
e. Cultural Diversity	CTI 200 or CTI 150 or CTI 219 (also listed as COM 358)	U.S. Pluralism (4 credit course) OR Identity & Society (2 credit course) OR Intercultural Communication (4 credit course)	2.00-4.00
f. Educational Psychology	EDU 206 or EDU 234 (<i>transition</i>) EDU 220 or EDU 216 (<i>transition</i>) EDU 501	Psychology & Education of Diverse Learners (4 credit course) OR Psychology and Education of the Exceptional Child I (3 credit course) <i>last offered in 14-15</i> AND High Leverage Teaching Strategies (4 credit course) OR Psychology of Development, Teaching & Learning (4 credit course) <i>last offered 14-15</i> Differentiated Instruction (4 credit course)	1.00 * *
3. Schools and the Teaching Profession			
	Course Number	Course Title	Semester Hours
a. Consultation and Collaboration	EDU 401	Reflective Student Teaching Seminar (4 credit course)	2.00
b. Legal/Ethical Aspects of Teaching	EDU 401	Reflective Student Teaching Seminar (4 credit course)	2.00
4. Secondary Literacy (Minimum of six semester hours)			
	Course Number	Course Title	Semester Hours
a. Reading and Writing in the Content Area	EDU 280	Disciplinary Literacy & Methods of Instruction (5 credit course)	3.00
b. Instructional Interventions for Students with Reading Deficits	EDU 308	Literacy Interventions in the Secondary Classroom (4 credit course)	3.00
Professional Requirements - Total Semester Hours			31.00-33.00

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 212	Clinical Fieldwork I	1.00
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	EDU 213	Clinical Fieldwork II	1.00
	EDU 214	Clinical Fieldwork III	1.00
	EDU 311	Clinical Fieldwork IV	1.00
	EDU 315	Clinical Fieldwork V	1.00
3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	EDU 420	Student Teaching in Secondary School I &	6.00
	EDU 421	Student Teaching in Secondary School II	6.00
Field and Clinical Experiences -Total Semester Hours			17.00
C. Physics Content Knowledge Area (Minimum of 35 semester hours)			
	Course Number	Course Title	Semester Hours
1. History/Philosophy of Science and Technology (three semester hours)	PHI 357	Contemporary Philosophy of Science	3.00-4.00
2. Physics Coursework – Minimum of 20 semester hours which must include:			
a. Mechanics	PHY 111 or PHY 213	College Physics I & Lab General Physics I & Lab	2.50
b. Electricity and Magnetism	PHY 112 or PHY 214	College Physics II & Lab General Physics II & Lab	2.50
c. Heat, Sound, and Light	PHY 111 or PHY 213	College Physics I & Lab General Physics I & Lab	2.50
	AND PHY 112 or PHY 214	College Physics II & Lab General Physics II & Lab	2.50
d. Atomic or Modern Physics	PHY 316	Modern Physics	4.00
e. Physics Electives	PHY 215 PHY 306 PHY 318 PHY 320 PHY 321 PHY 322 PHY 332 PHY 333 PHY 415 PHY 443 PHY 444 PHY 490 ONE FROM: CTI 253 CTI 255 OR CTI 256	Select from courses below to total 6+ credits Introduction to the Physics Major (1 cr) Applied Electronics & Lab (4 cr) Heat & Thermodynamics (3 cr) Computer Prog & Interfacing in LabVIEW (1 cr) Intermediate Physics Lab (1 cr) Optics & Lab (4 cr) Analytical Mechanics (Statics) (3 cr) Mechanics of Solids (4 cr) Electricity & Magnetism (4 cr) Classical Mechanics (4 cr) Quantum Mechanics (4 cr) Physics of Sustainability (4cr) Energy & Society Sports Science: Physics Applications & Ethical Issues The Science of Sight & Sound	6.00
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Chemistry	CHE 113 or CHE 121	Fundamentals of General Organic & Biological Chemistry or General Chemistry I	4.00-5.00
b. Biology	BIO 133 Or BIO 134	Evolution and Ecology & Lab Biological Diversity & Lab	2.00-4.00
c. Earth Science	CTI 258 OR CTI 262	Astronomy & Cosmology (4 credit course) Astrobiology	3.00-4.00
d. Environmental Science	BIO 133 OR CTI 260	Evolution and Ecology & Lab OR Sustainability& the World's Resources	3.00-400
Content Knowledge Area - Total Semester Hours			35.00-41.00

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