



**PHYSICS, GRADES 9-12 – POST-BACCALAUREATE**

EDUCATOR PREPARATION PROGRAM NAME  
DRURY UNIVERSITY

EDUCATOR PREPARATION PROGRAM CODE  
603541

**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](mailto: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](mailto: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	EDUC 200 or SCI 621	Technology in the Classroom Educational Technology	1 1	
	EDUC 304 or EDUC 619 or EDUC 638	Teaching in Diverse Classrooms Teaching in Diverse Classrooms w/Field Experience Teaching and Learning in Diverse Classrooms	.5 1 1	
	EDUC 350 or SCI 631	Methods of Teaching the Biological & Physical Sciences Improvements of K-12 Science Instruction	1 1 1.5	
	EDUC 385	Secondary School Curriculum		
	b. Instructional Strategies and Techniques in Content Area Specialty	EDUC 308	Secondary Area Content Literacy	3
		EDUC 350 or SCI 631	Methods of Teaching the Biological & Physical Sciences Improvements of K-12 Science Instruction	.5 .5
EDUC 385		Secondary School Curriculum	.5	
c. Assessment, Student Data, and Data-Based Decision-Making	EDUC 302 or EDUC 605	Educational Psychology & Assessment Advanced Educational Psychology & Assessment	1 1	
	EDUC 385	Secondary School Curriculum	.5	
d. Strategies for Content Literacy	EDUC 331 or EDUC 632	Content Area Literacy Literacy Instruction in the Content Area	2 2	
	e. Critical Thinking and Problem Solving	EDUC 205 or EDUC 621 Or EDUC 203 or SS 624	Diversity & Social Justice in Education Social Justice & Diversity in Education The American Classroom Home, School, & Community	.5 .5 .5 .5
f. English Language Learning		EDUC 205 or EDUC 621 Or EDUC 203 or SS 624	Diversity & Social Justice in Education Social Justice & Diversity in Education The American Classroom Home, School, & Community	.5 .5 .5 .5
		EDUC 304 or EDUC 619 or	Teaching in Diverse Classrooms Teaching in Diverse Classrooms w/Field Experience	.5 .5 .5

	EDUC 638	Teaching and Learning in Diverse Classrooms	.5
	EDUC 331 or EDUC 632	Content Area Literacy Literacy Instruction in the Content Area	1 1
	EDUC 340 or EDUC 606	Education of the Exceptional Child Psychology of the Exceptional Child	.5 .5
<b>2. Individual Student Needs</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Psychological Development of the Child and Adolescent	EDUC 207 or EDUC 607	Psychology of Human Growth & Development Psychology of Human Growth & Development	3 3
b. Psychology/Education of the Exceptional Child	EDUC 340 or EDUC 606	Education of the Exceptional Child Psychology of the Exceptional Child	2.5 2.5
c. Differentiated Learning	EDUC 350 or SCI 631	Methods of Teaching the Biological & Physical Sciences Improvement of K-12 Science Instruction	.5 .5
	EDUC 385	Secondary School Curriculum	.5
d. Classroom Management	EDUC 361 or EDUC 608	Collaborative Classroom Environments Classroom Management	3 3
e. Cultural Diversity	EDUC 205 or EDUC 621 Or EDUC 203 or SS 624	Diversity & Social Justice in Education Social Justice & Diversity in Education  The American Classroom Home, School, & Community	1 1  1 1
	EDUC 304 or EDUC 619 or EDUC 638	Teaching in Diverse Classrooms  Teaching in Diverse Classrooms w/Field Experience Teaching and Learning in Diverse Classrooms	.5  .5 .5
f. Educational Psychology	EDUC 302 or EDUC 605	Educational Psychology & Assessment Advanced Ed Psychology & Assessment	2 2
<b>3. Schools and the Teaching Profession</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Consultation and Collaboration	EDUC 304 or EDUC 619 or EDUC 638	Teaching in Diverse Classrooms  Teaching in Diverse Classrooms w/Field Experience Teaching and Learning in Diverse Classrooms	.5  1 1
b. Legal/Ethical Aspects of Teaching	EDUC 200 or SCI 621	Technology in the Classroom Educational Technology	1 1
	EDUC 205 or EDUC 621 Or EDUC 203 or SS 6624	Diversity & Social Justice in Education Social Justice & Diversity in Education  The American Classroom Home, School, & Community	1 1  1 1
<b>4. Secondary Literacy (Minimum of six semester hours)</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
a. Reading and Writing in the Content Area	EDUC 331 or EDUC 632	Content Area Literacy Literacy Instruction in the Content Area	3 3
b. Instructional Interventions for Students with Reading Deficits	EDUC 308	Secondary Content Area Literacy	3
<b>Professional Requirements - Total Semester Hours</b>			<b>37-38</b>
<b>B. Field and Clinical Experiences (Minimum of ten semester hours)</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
1. Early Field Experiences (Minimum of one semester hour with a minimum of 30 clock hours)	EDUC 201 or EDUC 208	Teacher Aide I or Introductory Practicum	1 1
2. Mid-Level Field Experiences (Minimum of one semester hour with a minimum of 45 clock hours)	EDUC 303 or EDUC 619	Secondary Education Field Experience I Teaching in Diverse Classrooms w/Field Experience	1 3

3. Culminating Clinical Experiences (Minimum of eight semester hours with a minimum of 12 weeks in one placement)	EDUC 478	Student Teaching on the Secondary School Level	10
<b>Field and Clinical Experiences - Total Semester Hours</b>			<b>12-14</b>
<b>C. Physics Content Knowledge Area (Minimum of 35 semester hours)</b>			
	<b>Course Number</b>	<b>Course Title</b>	<b>Semester Hours</b>
1. History/Philosophy of Science and Technology (three semester hours)	PHIL 277	Philosophy of Science	3
2. Physics Coursework – Minimum of 20 semester hours which must include:			
a. Mechanics	PHYS 350	Intermediate Mechanics	3
b. Electricity and Magnetism	PHYS 411	Electricity & Magnetism I	3
c. Heat, Sound, and Light	PHYS 212 or PHYS 213	General Physics II Magnetism, Waves, & Optics	5 3
d. Atomic or Modern Physics	PHYS 309	Modern Physics	4
e. Physics Electives	Choose one to two: PHYS 200 PHYS 201 PHYS 211 PHYS 213 PHYS 215 PHYS 290 PHYS 309 PHYS 320 PHYS 324  PHYS 350 PHYS 361 PHYS 390 PHYS 401 PHYS 412 PHYS 420 PHYS 442 PHYS 490 PHYS 493	Environmental Geoscience Principles of Physics General Physics I Magnetism, Waves & Optics Electronics Selected Topics Modern Physics Biophysics Computational Molecular Biophysics & Biochemistry Intermediate Mechanics Mathematical Methods for Physics Selected Topics Mechanics II Electricity & Magnetism II Computational Physics Introduction to Quantum Mechanics Selected Topics Senior Seminar	4 4 5 3 3 1-3 4 3 3 3 3 3 3 3 3 1-3 3 3 3 3 3
3. Additional Science Coursework – Minimum of 12 semester hours which must include:			
a. Chemistry	CHEM 103 or CHEM 107	Fundamentals of Chemistry General Chemistry	3 3
b. Biology	BIOL 172	Exploring Molecular Biology	3
c. Earth Science	PHYS 100	Earth Science	3
d. Environmental Science	BIOL 200 or ENVR 170	Ecology Introduction to Environmental Science	3 3
<b>Content Knowledge Area - Total Semester Hours</b>			<b>35</b>

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), 6<sup>th</sup> 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](mailto:civilrights@dese.mo.gov).