

Butler University  
College of Education  
Teacher Licensing  
Curriculum Sheets

License Requirements for students entering Program Fall 2018 and later

Butler University Major: **Middle/Secondary Education**  
Butler University Degree: **Bachelor of Science (COE); second major (LAS)\***  
License: **PHYSICS Teaching Content Area**  
Grades: **5-12**  
\*see LAS advisor for additional requirements

**SECTION A. GENERAL EDUCATION REQUIREMENTS**

**Required Courses**

**12 hours**

FYS First-Year Seminar – Self, Community, and the World (6 credit hours)  
(courses must be completed with a grade of “C” or better)

GHS Global and Historical Studies (6 credit hours)

ICR Indianapolis Community Requirement (ED 227S, ED 228S)

BCR Butler Cultural Requirement (8 events prior to graduation)

WAC Writing across the Curriculum (ED434WC)

SAC Speaking across the Curriculum (ED434WC)

**6 Areas of Inquiry:**

**7 hours**

1. TI: Text and Ideas - Humanities 3 hours

2. PCA: Perspectives in the Creative Arts – Fine Arts 3 hours

3. SW: Perspectives in the Social World – Social Sciences 0 hours  
College of Education students are exempt from this area of inquiry

4. NW: The Natural World [see Content Requirements-Section B]

5. AR: Analytical Reasoning [see Content Requirements-Section B]

6. PWB: Physical Well Being 1 hour

**SECTION B. CONTENT AREA COURSES**

(courses must be completed with a grade of “C” or better)

Contact: Teacher Licensing, College of Education – Butler South Campus  
4600 Sunset Avenue, Indianapolis, IN 46208 317-940-9331

## PHYSICS License Requirements for Grades 5-12

56-57 hours

### **Required Physics Courses: (36 hours)**

PH 201	Introduction to Analytical Physics I (5)
PH 202	Introduction to Analytical Physics II (5)
PH 301	Modern Physics [MA 107 prerequisite] (3)
PH 303	Electromagnetic Waves and Optics (3)
PH 311	Experimental Modern Physics (3)
PH 321	Intermediate Classical Mechanics [MA 208 prereq] (4)
PH 325	Thermodynamics and Statistical Physics [MA 107 prereq] (4)
PH 331	Electromagnetic Theory I [MA 208 prereq] (4)
PH 421	Quantum Theory I [MA 208 prereq] (4)
PH 495	Senior Seminar (1)

### **Elective Physics Courses – Choose 1 (3-4 hours)**

AS 301	Modern Astronomical Techniques [AS 101 & PH 202 prereq] (3)
AS 311	Astrophysics I [AS 101 & PH 202 prereq] (3)
PH 315	Mathematical Methods for Physics [MA 208 prereq] (4)
PH 351	Analog Electronics (4)
PH 422	Quantum Theory 2 (4)
PH 427	General Relativity and Gravity I (3)
PH 461	Computational Physics (3)
PH 480	Special topics (3)

### **Required Allied and Science Support Courses (17)**

MA 106	Calculus and Analytic Geometry I [meets AR requirement] (5)
MA 107	Calculus and Analytic Geometry II (4)
MA 208	Calculus and Analytic Geometry III (3)
NW 260 COE	Earth Systems Science (5)

**NOTE:** For Physics and Education double major in LAS and COE:  
FL 6 hours

## C. PROFESSIONAL EDUCATION COURSES

45 Hours

(courses must be completed with a grade of “C” or better)

### COE CORE I:

- ED 112 Introduction to the Profession of Teaching (2)  
ED 245 Introduction to Computers in Education (3) **(should be taken in the same semester as ED112)**  
OR  
ED 199 Exploring Educator Identity (5)

**Must Complete COE CORE I classes with a C (2.0) or better and pass CASA or other accepted benchmark indicators before moving into COE CORE II.**

**Must purchase Taskstream subscription. May purchase subscription each semester or one-time 4 year subscription.**

### COE CORE II:

- ED 299 Integrated CORE II Block (8)

**At the completion of COE CORE II student must apply to be admitted to Teacher Education/COE CORE III.**

### COE CORE III Program Specific: (must be admitted to Teacher Education)

- ED 227S Introduction to Middle-Secondary Students and Schools(3)  
ED 228S Content Area Literacy in Middle-Secondary Curriculum (3)  
ED 398 Multilingual Learners and Their Cultural Contexts (3)  
ED 498 Methods for Teaching Multilingual Learners (3)  
ED 492 Special Education Law (1)  
ED 327 Curriculum and Instructional Strategies for Middle Schools (3):  
Prerequisites ED 227S and ED 228S – Spring Junior year is optimal.  
ED 433 Content Area Methods for High School (4) – Fall only  
Prerequisite ED 327

### COE CORE IV: Student Teaching Courses

- ED 434WC Secondary Student Teaching Professional Seminar (2)  
ED 423 Student Teaching (5)(Middle Level Student Teaching)  
ED 425 Secondary Student Teaching (5) (High School)

## D. ELECTIVES

**NOTE: 126 hours are required for graduation from the University. At least 40 of the 126 hours needed for graduation must be in upper division courses – courses numbered 300 or above.**

## E. TESTING REQUIREMENTS

The Pearson CASA basic skills exam or other accepted benchmark indicator must be received week prior to admission to COE CORE II classes. Information will be available through the COE website and your advisor.

A Pedagogy Exam and Indiana Core Content Tests are required for teaching licensure in the state of Indiana. The tests measure understanding of the content and methods applicable to the specific subject areas. Test preparation materials and registration are available at <http://www.in.nesinc.com/Home.aspx>.

edTPA for Secondary Sciences (Physics) is required to be submitted to Pearson for national scoring during Phase I of Student Teaching.

#### **F. CPR/HEIMLICH/AED and SUICIDE AWARENESS/PREVENTION**

Applicants who receive an 'initial' teacher's license must have successfully completed training in:

1. cardiopulmonary resuscitation that includes a test demonstration on a mannequin;
2. moving a foreign body causing an obstruction in an airway, and Heimlich Maneuver;
3. AED; and
4. suicide awareness/prevention

**A copy of your CPR/Heimlich/AED certification is required for original licensure.**

**A certificate verifying your successful completion of a suicide awareness/prevention module is required for original licensure.**

Please note: If you follow this specified plan you will have met the core curriculum course requirements, the Butler University graduation course requirements, and the initial Indiana licensing course requirements.