Butler University
College of Education
Teacher Licensing
Curriculum Sheets
License Requirements for students entering Program Fall 2019 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Hours</th>
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<tbody>
<tr>
<td>FYS</td>
<td>First-Year Seminar – Self, Community, and the World (6 credit hours)</td>
<td>6</td>
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<td>(courses must be completed with a grade of “C” or better)</td>
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<tr>
<td>GHS</td>
<td>Global and Historical Studies (6 credit hours)</td>
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<tr>
<td>ICR</td>
<td>Indianapolis Community Requirement (ED 227S, ED 228S)</td>
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<tr>
<td>BCR</td>
<td>Butler Cultural Requirement (8 events prior to graduation)</td>
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<tr>
<td>WAC</td>
<td>Writing across the Curriculum (ED434WC)</td>
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<tr>
<td>SAC</td>
<td>Speaking across the Curriculum (ED434WC)</td>
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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: Curriculum Coordinator, College of Education – SCMB 229
4250 Haughey Ave., Indianapolis, IN 46208 317-940-6967

Updated Fall 2019 - Subject to change pending modification by the Indiana Department of Education
PHYSICS License Requirements for Grades 5-12

55-56 hours

Required Physics Courses: (36 hours)
*Physics courses are typically offered in an every other year sequence due to small class sizes. This requires close collaboration with the faculty advisors in the Physics Department.

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

Elective Physics Courses – Choose 1 (3-4 hours and offered on an occasional basis)

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 (16)

MA 106 Calculus and Analytic Geometry I [meets AR requirement] (4)
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
*For a Bachelor of Science degree a student must take a minimum of 60 hours in the natural sciences and mathematics.

C. PROFESSIONAL EDUCATION COURSES 45 Hours
(courses must be completed with a grade of “C” or better)
**COE CORE I:**
ED 199 Exploring Educator Identity (5)

Must Complete COE CORE I classes with a C (2.0) or better and other accepted benchmark indicators before moving into COE CORE II.
Must purchase Taskstream subscription. May purchase subscription each year or one-time multi-year subscription.

**COE CORE II:**
ED 299 Integrated Foundations of Teacher Education (6)
ED 242 Foundations of Special Education (2) *Required co-enrollment w/ ED 299

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.*

*Students planning on student teaching next academic year must attend information sessions and submit specific documents to the College of Education in order to ensure proper and appropriate placement.

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**
Information will be available through the COE website and the Director of Student Personnel Services in the College of Education SCMB 105: 317-940-9331.
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.

**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.