CIEP Submission Form

Physics (6-12)

(for Educator Preparation Chapter adopted 8-12-2021)

The CIEP form for Science General Rules for All Teaching Fields must also be submitted.

Institution Name:
Date Submitted:

Program Level: *Select one of the options below.*

☐Class B
☐Alternative Class A

Submitting for: *Choose one of the options below.*

☐Initial review of a proposed program
☐Continuing review of a currently approved program
☐Resubmission to address unmet standards and/or conditions

Overview of Each Required Section:

I. **Background Information:** Provide background information about the program (checklist; numbers of admissions, completers, and recommendations for certification). The "n"s reported here are used to determine if "n"s reported in data tables are consistent.

II. **Key Assessments, Data, and Data Analysis:** Provide an overview of the key assessment in the Section II chart. Key Assessments are typically summative assessments of candidate proficiencies. For each key assessment, included the completed coversheet; assessment instrument, instructions, or test specification information; rubric or scoring guide; and data table(s). Program faculty preparing submissions should use the Rubric for Key Assessments.

III. **Alignment of Standards to Curriculum and Key Assessments:** Provide an overview of how the program ensures each indicator is adequately addressed in curriculum and key assessments so reviewers know where to look to for evidence. Reviewers use the course descriptions and assessment documents, not the chart, to determine whether each indicator is adequately addressed.

IV. **Summary of Field Experiences Prior to Internship:** Provide an overview of how the program requires candidates to demonstrate developing proficiencies in field experiences prior to internship. Copies of instructions or assignments must be submitted. Assessment information is not required but may be submitted. Field experiences should have clear purposes and reflect increasing expectations. Program faculty preparing submissions should use the Rubric for Field Experiences Prior to Internship.

SECTION I Background Information

1. **Include the proposed checklist as a separate document.**

2. **Data on Unconditional Admissions, Program Completers, and Certificates Issued**
   Programs should report at least three years of data. If the "n" over three years is less than 10, the program should report five years of data.

Academic Year September 1 to August 31	**Number of Unconditional Admissions**	**Number of Program Completers**[1]	**Number Recommended for Alabama Certification**

[1] Use the Title II definition for program completers.

SECTION II Key Assessments, Data, and Data Analysis

1. *Assessments #1-#5 are required. No more than eight key assessments may be submitted.*
2. *Complete a coversheet for each key assessment and attach it to the instrument or instructions, or test specifications; rubric or scoring guide; and data tables(s). Submit these documents in a Key Assessments folder on the flash drive and a section of the binder.*

#	Key Assessment Title	Name of Key Assessment[2]	Type of Key Assessment[3]	When Required by Program[4]
1 a	**State Certification Tests:**[5] **Praxis Physics**		State Certification Tests	
1 b	**edTPA**			
2	**Content Knowledge**[6]			
3	**Planning Instruction**[7]			
4	**Internship**			
5	**Effect on Student Learning**[8]			
6[9]				
7				
8				

[2] Identify assessment by title used in the program.
[3] Types of assessment include but are not limited to essay, case study, project, comprehensive exam, reflection, state certification test, and portfolio.
[4] Assessments might be required at the time of admission to the program, admission to internship, during a required course, or at program completion.
[5] Praxis test data must include the percentage of candidates who passed the tests for the last three years. Total scores and appropriate sub-test data must be reported.
[6] Examples of appropriate content knowledge assessments include grade analyses, comprehensive examinations, portfolio tasks, and culminating performances.
[7] Examples of appropriate assessments for planning instruction include developing lesson or unit plans that address the breadth and depth of the teaching field, individualized education plans, needs assessments, or intervention plans.
[8] Examples of appropriate assessments for effect on student learning include those based on samples of student work, portfolio tasks, case studies, and appropriate follow-up studies.
[9] Examples of optional assessments addressing program standards include but are not limited to evaluations of field experiences, case studies, specific portfolio artifacts, complete portfolios, and follow-up studies.

SECTION III Alignment of Standards to Curriculum and Key Assessments

Identify the curriculum components and key assessments listed in Section II that address the standard and indicators. Only courses that directly address indicators should be listed. In most cases, an indicator will be addressed by more than one key assessment. Cross-references to the standards and indicators should be inserted into the assessment instruments, scoring guides, and data tables.

PH Standard 1 Competency Requirements for All Science Teachers. Candidates in physics demonstrate knowledge of:		
Indicators	**Curriculum Components—Courses or Other Requirements**[10] *(Include course prefix, number, and name.)*	**Key Assessment(s)** *(Identify by key assessment number[s] in Section II.)*
1.1 Multiple ways to organize perceptions of the world and how systems organize the studies and knowledge of science.		
1.2 Nature of scientific evidence and the use of models for explanation.		
1.3 Measurement as a way of knowing and organizing observations of constancy and change.		
1.4 Development of natural systems and factors that result in change over time or equilibrium.		
1.5 Interrelationships of form, function, and behaviors in living and nonliving systems.		

PH Standard 2 Core Competencies in Physics. Candidates in physics demonstrate knowledge of:		
Indicators	**Curriculum Components—Courses or Other Requirements** *(Include course prefix, number, and name.)*	**Key Assessment(s)** *(Identify by key assessment number[s] in Section II.)*
2.1 Energy, work, and power.		
2.2 Motion, major forces, and momentum.		
2.3 Newtonian physics with engineering applications.		
2.4 Conservation mass, momentum, energy, and charge.		
2.5 Physical properties of matter.		
2.6 Kinetic-molecular motion and atomic models.		
2.7 Radioactivity, nuclear reactors, fission, and fusion		
2.8 Wave theory, sound, light, the electromagnetic spectrum and optics.		
2.9 Electricity and magnetism.		
2.10 Fundamental processes of investigating in physics.		
2.11 Application of physics in environmental quality and to personal and community health.		

PH Standard 3 Advanced Competencies in Physics. Candidates in physics demonstrate knowledge of:		
Indicators	**Curriculum Components—Courses or Other Requirements** *(Include course prefix, number, and name.)*	**Key Assessment(s)** *(Identify by key assessment number[s] in Section II.)*
3.1 Thermodynamics and energy-matter relationships.		
3.2 Nuclear physics including matter-energy duality and reactivity.		
3.3 Angular rotation and momentum, centripetal forces, and vector analysis.		
3.4 Quantum mechanics, space-time relationships, and special relativity.		
3.5 Models of nuclear and subatomic structures and behavior.		
3.6 Light behavior, including wave-particle duality and models.		
3.7 Electrical phenomena including electric fields, vector analysis, energy, potential, capacitance, and inductance.		
3.8 Issues related to physics such as disposal of nuclear waste, light pollution, shielding communication systems and weapons development.		
3.9 Historical development and cosmological perspectives in physics including contributions of significant figures and underrepresented groups, and development of theories in physics.		
3.10 How to design, conduct, and report research in physics.		

3.11 Applications of physics and engineering in society, business, industry, and health field.		

PH Standard 4 Supporting Competencies for Physics. Candidates in physics demonstrate knowledge of:		
Indicators	**Curriculum Components—Courses or Other Requirements** *(Include course prefix, number, and name.)*	**Key Assessment(s)** *(Identify by key assessment number[s] in Section II.)*
4.1 Biology, chemistry and Earth and space science.		
4.2 Statistics, use of differential equations and calculus.		

SECTION IV Summary of Field Experiences Prior to Internship

1. **List all courses (or other curriculum requirements) that have a required field experience, in the order that the courses are typically taken.** ***Include the course prefix, number, and title.***

Course Prefix	Course Number	Course Title

2. **Are field experiences always done in this order?** ☐**Yes** ☐**No**
   If no, provide a brief explanation.

3. **Briefly explain how placements are made to ensure that candidates are placed in diverse schools.**

4. **For each field experience, complete a field experience coversheet and attach it to the instructions or assignments for the field experience. Submit these in a Field Experience folder on the flash drive and a section in the binder.**