

PHYSICAL SCIENCE AND/OR PHYSICS EDUCATION (K-12) Five-Year Teacher Education Program

Revised August, 2016 -- For students earning a bachelor's degree in May, 2018 or later

*Students who complete this program successfully will receive an Ed.M. in Science Education from the GSE as well as a recommendation to the New Jersey Department of Education for **Teacher of Physics (K-12) Certificate of Eligibility with Advanced Standing and/or Teacher of Physical Science (K-12) CEAS.***

- I. PROGRAM DESCRIPTION:** The five-year teacher education program in physical science and physics education (K-12) leads to a bachelor's degree, a master's degree, and initial teacher certification. Rutgers undergraduates do preliminary coursework and field placements as assigned during the sophomore and junior years, are admitted to the program during the spring semester of the junior year, and enter the professional education sequence in the summer between junior and senior years. Students then qualify to have their bachelor's degree awarded by the undergraduate liberal arts college.

Students continue with the professional sequence the summer after graduation. They return in the fall to complete a student-teaching internship with related coursework and continue with full-time graduate study, including a field-based research project, in the spring. The Ed.M. degree is conferred upon the completion of all five-year program requirements.

After the master's degree is awarded, the GSE will make a recommendation to the New Jersey State Department of Education on behalf of the student to receive a Certificate of Eligibility with Advanced Standing as a teacher.

- II. MAJOR:** Every candidate for certification in Physical Science Education must complete a full major in either chemistry or physics and at least 15 credits in the other subject, or a major in chemical and biochemical engineering from the School of Engineering. Candidates for certification in Physics Education need only complete a major in physics, mechanical engineering, civil and environmental engineering, industrial and systems engineering, or materials science and engineering.

- III. APPLICATION REQUIREMENTS:** To be considered for admission to the program, applicants must provide the following before the February 1st deadline:

1. Personal statement
2. Three letters of recommendation
3. Passing Praxis Core test scores
 - a. **or**, minimum SAT scores of:
 - i. 560 Reading, 540 Math (if taken 2/28/16 or earlier) **or**
 - ii. 610 Reading & Writing or 30 Reading, 570 Math (if taken on or after 3/1/16)
 - b. **or**, minimum ACT scores of: 23 English, 23 Math
 - c. **or**, minimum GRE scores of: 155 Verbal, 156 Quantitative
(Any test scores submitted must be less than five years old as of the application deadline. Scores must be official, not self-reported.)
4. Undergraduate transcripts - the New Jersey Department of Education requires a minimum GPA of **2.75** to be admitted to a teacher education program.

Praxis Core – see ets.org/praxis/about/core
Combined test code: 5752
Reading: 5713, minimum score 156/200
Writing: 5723, minimum score 162/200
Math: 5733, minimum score 150/200
NOTE: Praxis Core test codes were updated on 9/1/19. Passing test scores taken before 9/1/19 are still valid.

(NOTE: Admission to the GSE Teacher Education Programs is competitive. Meeting the minimum requirements above does not guarantee admission.)

IV. HOW TO APPLY: Applications are submitted online at the Graduate Admissions website:

<http://gradstudy.rutgers.edu/>

1. Click on "Apply Now" and follow the instructions given.
2. Choose "Degree Application", for Application Type.
3. For Program Name choose "Education: Science" from the drop down menu.
4. Across from "Education: Science 5-Year Program 15256T", click the link for the Summer semester.
5. For Enrollment Year, select the year when you'll be graduating with your bachelor's degree. For example, if you will be graduating with your bachelor's degree in May 2018, you should apply for Summer 2018.
6. Under First Preference Concentration, choose "Physical Science Certification". (2nd and 3rd preferences can be left blank.)
7. Complete the application by providing the requested information.
8. Supporting materials must be submitted online or mailed to the Graduate Admissions office at Office of Graduate and Professional Admissions (New Brunswick), Rutgers, The State University of New Jersey, 65 Davidson Road, Room 200L, Piscataway, NJ 08854-5602, U.S.A.
9. Enter payment information for the non-refundable application fee.
10. Submit your application and authorize payment for the non-refundable application fee.

V. GENERAL EDUCATION REQUIREMENTS: Students must complete coursework in each of the following areas by completion of the program; fulfillment of these courses is not required for admission into the program. It is highly recommended that you coordinate the elements of this list with those of the general distribution requirements of your undergraduate college to make the most efficient use of your time.

General Education Requirements	Course Number—Course Title—Term/Year—Grade
1. Math: two courses Follow SAS Core Quantitative and Formal Reasoning requirement (QQ, QR)	1a. _____ 1b. _____
2. Science: two courses Follow SAS Core Natural Science requirement	2a. _____ 2b. _____
3. Educational Technology: one course 05:300:462 Demonstrations and Technology in Science Teaching (see professional sequence Phase 4 below)	3. _____
4. Human Development: one course 05:300:307 Human Development: Birth through the Transition to Adulthood	4. _____

VI. LIBERAL ARTS: Students must complete a minimum of **60 credits** in liberal arts to earn the Master's degree. Neither Education courses, nor any other performance-based or vocationally-oriented coursework (accounting, engineering, human resource management, public health, social work, etc.) may be counted toward the 60 liberal arts credits; no School 05, School 15, or E-credit courses may be included.

VII. PORTFOLIO: Students will archive artifacts from various GSE courses via an online instructional and evaluation system as directed by faculty. Details of this portfolio are specified in the *Student Policy and Procedures Handbook*.

VIII. GSE COMMUNITY-SCHOOL PARTNERSHIP NETWORK (GSE-CSPN): All field experiences will take place in a GSE-CSPN school.

IX. HIB TRAINING: All candidates for teacher certification must complete pre-service training in the prevention of harassment, intimidation, and bullying (HIB) prior to Clinical Practice II.

X. PROFESSIONAL EDUCATION REQUIREMENTS: Physical Science and/or Physics Education Five Year Teacher Education Program

Phase/ Semester	Course Number	Course Name	Credits		
			Under- grad	Grad	Total
Pre- Admission Sophomore or Junior Year	05:300:200	Introduction to Education	3		6.5
	05:300:201	Introduction to Education Field Based Lab - Clinical Experience	.5		
	05:300:306	Educational Psychology: Principles of Classroom Learning	3		
Phase 1 Summer before Senior Year	n/a	Working with Minors Online Training	NC		0
	n/a	School Law Module	NC		
Phase 1 Senior Fall	05:300:498	Clinical Experience Phase 1	.5		6.5
	05:300:450	Urban Education 1	1.5		
	05:300:452	Teaching Emerging Bilinguals in PK-12 Classrooms 1	1.5		
	15:256:551	Development of Ideas in Physical Science	3		
Phase 2 Senior Spring	05:300:499	Clinical Practice Phase 2	4		7
	15:256:552	Teaching and Assessment in Physical Science	3		
Phase 3 Fifth Year Summer	15:293:534	Classroom Organization for Inclusive and Special Classrooms		3	6
	15:256:593	Topics in Engineering Education		3	
Phase 3 Fifth Year Fall	15:255:535	Clinical Practice Phase 3		9	15
	15:255:532	Clinical Practice Phase 3 Seminar		6	
Phase 4 Fifth Year Spring	05:300:406 ^G	Community-Based Language Learning; or Teaching English Language Learners; or Students, Communities, and Social Justice		3	15
	15:253:540				
	15:255:539				
	15:293:523	Inclusive Teaching in Education		3	
	05:300:451 ^G	Urban Education 2		1.5	
	05:300:453 ^G	Teaching Emerging Bilinguals in PK-12 Classrooms 2		1.5	
	05:300:462 ^G	Demonstrations and Technology in Science Teaching (Physics)		3	
	15:256:557	Multiple Representations in Physical Science		3	
Total Credits			20	36	56

^G Course must be 300-level or above to count towards graduate credits. 300- and 400-level courses must be registered for with a **G-prefix**.

- XI. PRAXIS II TESTS:** Students seeking certification in physical sciences must achieve passing scores on the Chemistry: Content Knowledge (test code 0245/5245), Physics: Content Knowledge (test code 0265/5265), and General Science: Content Knowledge (test code 0435/5435) Praxis II examinations. Students seeking certification in physics alone must pass the Physics: Content Knowledge and General Science: Content Knowledge Praxis II examinations. **Students must pass all required tests prior to the start of full-time Clinical Practice Phase 3.**
- XII. edTPA PERFORMANCE BASED ASSESSMENT:** Students must pass a performance based assessment of their teaching practice during the full-time Clinical Practice II semester. Details of this assessment are specified in the *Student Policy and Procedures Handbook*.
- XIII. PHYSIOLOGY, HYGIENE, AND SUBSTANCE ABUSE ISSUES:** The Office of Student and Academic Services administers this New Jersey Department of Education exam during the final semester of the program.
- XIV. COMPREHENSIVE EXAMINATION:** No comprehensive examination is required.