

LEARNING SCIENCES & TECHNOLOGIES, PHD

The Ph.D. in Learning Sciences and Technologies focuses on the preparation of researchers and researcher/developers in education. The program includes formal courses, mentored research, and informal seminars. Ph.D. students are required to hold a master's degree prior to beginning the Ph.D. program, and are expected to have experience in educational practice. You will build a program of study that includes courses in teaching and learning, social foundations, and research methods. The program is designed to draw together coursework, research apprenticeship, and other professional academic activities to build a complete professional program that is tailored to your interests and needs.

For more information: <https://www.gse.upenn.edu/academics/programs/learning-sciences-technology-phd> (<https://www.gse.upenn.edu/academics/programs/learning-sciences-technology-phd/>)

View the University's Academic Rules for PhD Programs (<http://catalog.upenn.edu/pennbook/academic-rules-phd/>).

Curriculum

The program requires a minimum of 12 course units beyond the master's degree.

Code	Title	Course Units
Theory Strand		2
<i>Required Courses</i>		
EDUC 9126	Doctoral Foundations of Teaching and Learning	
EDUC 6144	Learning Sciences: Past, Present, Future	
Methods Strand		3
<i>Required Courses (choose 3, pre-approved courses below) ¹</i>		
EDUC 6130	Introduction to Mixed-Methods Research	
EDUC 7460	Qualitative Research: Concepts, Methods and Design	
EDUC 6191	Core Methods in Educational Data Mining	
EDUC 7464	Advanced Qualitative and Case Study Research	
EDUC 7847	Social and Statistical Network Analysis	
EDUC 7667	Regression and Analysis of Variance	
Design Strand		2
<i>Required course</i>		
EDUC 6139	Design of Learning Environments	
<i>Choose 1 more from pre-approved courses below:</i>		
EDUC 6108	MaKer Studio	
IPD 5680	Integrative Design Studio: Biological Design	
IPD 5720	Design Thinking	
Applications Courses		2
<i>Required Courses (choose 2, pre-approved courses below)</i>		
EDUC 5152	Video Games and Virtual Worlds as Sites for Learning	
EDUC 5150	Educational and Social Entrepreneurship	
EDUC 5388	Digital Literacies in a Networked World	

EDUC 6111	Educational Assessment of and for Learning	
EDUC 6123	Big Data, Education, and Society	
EDUC 6150	Technologies for Language Learning and Teaching	
Professional Experiences ²		1
<i>Required course</i>		
EDUC 7132	Doctoral Proseminar on Education Research	
Electives ³		2
Select 2 electives		
Total Course Units		12

1

Chosen in consultation with an advisor.

2

A non-credit bearing Research Apprenticeship Course is required from second semester of first year forward in the Professional Experiences Strand.

3

Electives may be taken outside of GSE with advisor approval. Courses must be at the 5000 level or above.

Required Milestones

Qualifications Evaluation (Also known as Program Candidacy)

A Qualifications Evaluation of each student is conducted after the completion of 6 but not more than 8 course units. The evaluation is designed by the specialization faculty and may be based on an examination or on a review of a student's overall academic progress.

Preliminary Examination (Also known as Doctoral Candidacy)

A Candidacy Examination on the major subject area is required. The candidacy examination is a test of knowledge in the student's area of specialization, requiring students to demonstrate knowledge and reasoning in the key content areas in their specialization as defined by their academic division. This examination is normally held after the candidate has completed all required courses.

Oral Proposal

All doctoral candidates must present their dissertation proposals orally and in person to the dissertation committee.

Final Defense of the Dissertation

The final dissertation defense is approximately two hours in length and is based upon the candidate's dissertation.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2022 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.