

Learning Sciences and Learning Environment Design Ph.D. Requirements

Vanderbilt University requires students to take 72 hours of work to earn a PhD. These hours can be fulfilled through transfer of graduate credits, course work, independent studies, and dissertation work. The number of hours transferred and the number of hours counted toward dissertation work vary according to each student's particular circumstances. Typically students who enter with a Masters degree with coursework relevant to their area of study will be able to complete coursework in three years. Students with less prior coursework typically will require additional time.

	<i>Fall Courses</i>	<i>Spring Courses</i>	<i>Expected Products</i>
Year 1 (18 hrs)	Intro. to Statistical Inference [^] Learning & Instruction* Inquiry in Education* Research Group* (no credit)	Design of Learning Environments ~ Research Group * (for credit) Elective	<i>First Year Paper</i> (presented as poster Fall of second year)
Year 2 (18 hrs)	Research Methods #1 LSLED Elective LSLED Elective Research Group* (no credit)	Research Methods #2 Research Group * (for credit) Teaching as Social Practice*	<i>Second year paper</i> (presented Fall of third year)
Year 3 (18 hrs)	Electives	Electives	<i>Major Area Paper</i> (depending on coursework needs and advisor)
Year 4			<i>Dissertation proposal</i> (depending on advisor)
Year 5		Dissertation	

* Required by the Teaching & Learning Department

~ Required by LSLED

[^] Vanderbilt Graduate Program Requirement

Teaching and Learning requirements:

- **Core Courses:** **24 hours**
 - Introduction to Statistical Inference (PSY 309P)
 - Inquiry into Education (EDUC 3070)
 - Learning and Instruction (EDUC 3120)
 - Teaching as Social Practice (EDUC 3040)
 - Research Methods: Two courses, one of which should be a qualitative methods course, selected in consultation with your advisor
- Research Groups: Participation is required during the first two years. In years one and two when they are taken for 3 credits. In years three and four they are optionally taken for between zero and three credits.
- Research Papers:
 - Year one: project poster delivered to the department and other students (Fall of Year 2)
 - Year two: paper presented to the department and other students (Fall of Year 3)
- Major Area Paper (MAP): written and defended in year three or four (depending on course needs).
- **Specialization:** **30 hours**
- **Electives:** **9 hours**
- **Dissertation: 1 - 9 hours** (A minimum of 1 hour of dissertation credit is required – The remaining hours may be used for other additional course work or research group participation.)

Learning Sciences and Learning Environment Design requirements

In addition to completing all departmental requirements for Teaching and Learning, students in the LSLED sequence also will complete the following requirements:

Required Courses: 9 hours

All LSLED students will take one required LSLED course on the Design of Learning Environments, and two LSLED electives. In addition students need to develop a research statement in consultation with their advisor(s) (see below for details).

Specialized Area of Expertise

Each LSLED student will develop and present a statement describing his or her area of expertise at the end of his/her first year. This statement will serve as a guide to the development of the student's program of studies and research trajectory. The statement must include institutional resources (e.g., courses, faculty, research groups, internships, etc.) that he/she will draw upon to develop her or his scholarship. The statement and subsequent revisions of it will be approved by the student's advisor and LSLED faculty during annual reviews.

Research Presentation Competence

Students will work to develop competence presenting research results by engaging in varied activities related to presenting research findings. First year projects will be presented to the department faculty and students in the format of posters. Second year papers will be presented to the department. In addition, students will develop and submit abstracts seeking the opportunity to present research at national conferences. A typical student should submit at least three conference proposals to national or international conferences.

LSLED Electives:

(Please note that this is not an exhaustive list)

The electives have been grouped in broad clusters. In some cases, the same course may be applicable to two or more clusters.

Cognition

- EDUC 3900: Cognitive Approaches to Learning
- EDUC 3480: Sociocognitive Models of Literacy
- EDUC 3490: Sociocultural Perspectives on Literacy

Language & Literacy

- EDUC 3810: Discourse Analysis (also may fulfill the qualitative research requirement)
- EDUC 3900: Multimodal Composition
- EDUC 3900: Learning out of School
- EDUC 3590: Issues in ELL Education Research: Research, Policy, and Instruction.

Technology and Computation

- CS 364: Intelligent Learning Environments
- CS 360: Advanced Artificial Intelligence
- SCED 3900: Designing for Scientific Literacies

New Media

- ENED 3900: New Literacies

Math & Science

- MTED 3900: Seminal Readings in Mathematics Education

- SCED 3900: Seminal Readings in Science Education
- EDUC 3900: Talk, Modeling, and Argumentation in STEM Classrooms
- EDUC 3730: Epistemological Foundations of Mathematics and Sciences
- SCED 2690/3900: Scientific Literacies
- MTED 2690/3900: Mathematical Literacies

Early Childhood Development

- EDUC 3200: Foundations of Learning and Development
- EDUC 3900: Development of Reading Comprehension

Methods

- EDUC 3900: Design-based Research

Teacher Professional Knowledge

- EDUC 3900: Organizational Settings of STEM Teachers' Learning

Diversity and Equity

- EDUC 3080: Diversity and Equity in Education