

# LEARNING, DESIGN, AND TECHNOLOGY

## Degree Requirements

### Master of Education (M.Ed.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-700 Professional Degree Policies (<http://gradschool.psu.edu/graduate-education-policies/>).

At least 18 credits must be taken at the 500 level or above, with at least 6 credits at the 500 level. Students in the M.Ed. program are required to complete a program of a minimum of 30 approved credits including:

Code	Title	Credits
<b>Required Courses</b>		
LDT 415A or LDT 415B	Systematic Instructional Development Systematic Instructional Development for Teachers	3
LDT 467	Emerging Web Technologies and Learning	3
LDT 527	Designing Constructivist Learning Environments (or equivalent)	3
21 credits of professional application courses chosen in consultation with an adviser. These courses can be chosen from, but are not limited to:		
LDT 401	Gaming 2 Learn	
LDT 433	Teaching and Learning Online in K-12 Settings	
LDT 440	Educational Technology Integration	
LDT 449	Video in the Classroom	
LDT 505	Integrating Mobile Technologies into Learning Environments	
LDT 550	Learning Design Studio	
LDT 566	Computers as Learning Tools	
LDT 581	Theoretical Foundations of Learning, Design, and Technology	
LDT 832	Designing e-learning Within Course Management Systems	

#### Culminating Experience

All students will compile a portfolio as they move through the courses, and this portfolio will be presented to the adviser as the capstone experience (students do not need to enroll in any additional courses to complete the capstone experience).

**Total Credits** 30

### Master of Science (M.S.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-600 Research Degree Policies. (<http://gradschool.psu.edu/graduate-education-policies/>)

At least 18 credits must be taken at the 500 level or above, with at least 6 credits at the 500 level. Students in the M.S. degree program are required to complete a minimum of 36 approved credits including:

Code	Title	Credits
<b>Required Courses</b>		
LDT 415A or LDT 415B	Systematic Instructional Development Systematic Instructional Development for Teachers	3

LDT 467	Emerging Web Technologies and Learning	3
LDT 527	Designing Constructivist Learning Environments (or equivalent)	3

12 credits chosen in consultation with an adviser. These courses can be chosen from, but are not limited to:

LDT 401	Gaming 2 Learn	
LDT 433	Teaching and Learning Online in K-12 Settings	
LDT 440	Educational Technology Integration	
LDT 449	Video in the Classroom	
LDT 505	Integrating Mobile Technologies into Learning Environments	
LDT 550	Learning Design Studio	
LDT 566	Computers as Learning Tools	
LDT 581	Theoretical Foundations of Learning, Design, and Technology	
LDT 832	Designing e-learning Within Course Management Systems	

#### Research Methods Courses

6 credits of research methods courses with adviser approval, which can include, but are not limited to:

STAT 500	Applied Statistics	
STAT 800	Applied Research Methods	
ADTED 550	Qualitative Research in Adult Education	
LDT 574	Applied Qualitative Research for Work Practice, Innovation, and Systems Design	
LDT 575	Designing Experimental Research in Learning, Design, and Technology	
LDT 576	Design-based Research Methods, Applications for Educational Research	
EDPSY 406	Applied Statistical Inference for the Behavioral Sciences	
EDPSY 575	Seminar in Educational Psychology	
EDPSY 505	Statistical Applications in Educational Research	

#### Culminating Experience

LDT 594	Research Topics (to conduct their research project)	3
LDT 600/610	Thesis Research (to write and produce a master's thesis)	6

**Total Credits** 36

### Doctor of Philosophy (Ph.D.)

Requirements listed here are in addition to Graduate Council policies listed under GCAC-600 Research Degree Policies. (<http://gradschool.psu.edu/graduate-education-policies/>)

Credit and course requirements: Ph.D. students in LDT must complete a set of core competencies in instructional design, learning sciences and technology, research methodology, and research apprenticeship. Doctoral students must complete a minimum of 30 LDT credits to include 9 credits of LDT doctoral core courses, 9 credits of LDT 594, and at least 12 credits of 500-level graduate LDT courses based on competency selection.

Code	Title	Credits
<b>Required Courses</b>		
<i>LDT Doctoral Core Courses</i>		
LDT 527	Designing Constructivist Learning Environments	3

LDT 581	Theoretical Foundations of Learning, Design, and Technology	3
LDT 583	Survey of Research in Learning Sciences and Technology	3

#### Core Competency Courses

Core competencies are represented by a number of courses including 12 (but not limited to):<sup>1</sup>

LDT 505	Integrating Mobile Technologies into Learning Environments	
LDT 550	Learning Design Studio	
LDT 586	Diffusion and Adoption of Innovations and Change	
LDT 544	Video for Instruction, Training, and Research	
LDT 549	Current Topics in Emerging Technologies	
LDT 574	Applied Qualitative Research for Work Practice, Innovation, and Systems Design	
LDT 575	Designing Experimental Research in Learning, Design, and Technology	
LDT 576	Design-based Research Methods, Applications for Educational Research	
LDT 832	Designing e-learning Within Course Management Systems	

#### Research Courses

LDT 594	Research Topics	9
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**Total Credits** **30**

<sup>1</sup> As an example, a doctoral student interested in the instructional design core competency might be advised to take LDT 550, LDT 551, LDT 549, and LDT 832, while a student interested in learning sciences and technology might be advised into LDT 505, LDT 574, LDT 576, and LDT 544. The 12 credits of core competencies plus additional course work for the doctoral program will be determined in consultation with the Ph.D. committee.

All Ph.D. students must also complete a communication requirement consisting of one course in applied statistics, and either one course in advanced statistics or one course in advanced qualitative analysis. Course work offered by outside departments may be scheduled as part of the student's program with approval of the student's Ph.D. committee and the Director of Graduate Studies.

To complete the residency requirements as defined by Graduate Council, the Ph.D. student must spend at least two consecutive semesters enrolled as a full-time student at the University Park campus.

#### Doctoral exams and committees

The qualifying exam is recommended to be taken early in a student's program, after a minimum of 18 credits of post-baccalaureate work, and within three semesters (not including summers and assuming full-time study) of entry into the doctoral program. Students must submit an application to take the qualifying exam, and the LDT faculty must approve the application. In order to complete the qualifying exam, students must be registered either full- or part -time during the semester in which it is completed and show no deferred or failing grades in courses related to the degree program on their graduate transcript.

Prior to the comprehensive exam, the student, in consultation with his or her adviser, will convene a Ph.D. committee that meets all Graduate Council requirements (<http://gradschool.psu.edu/graduate-education-policies/gcac/gcac-600/phd-dissertation-committee-formation/>). After the completion of all course work, the doctoral student must complete a

comprehensive examination. All doctoral candidates must produce and write a doctoral dissertation and hold a final oral examination in defense of the dissertation.