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 (https://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:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>LDT 415A</td>
<td>Systematic Instructional Development</td>
<td>3</td>
</tr>
<tr>
<td>or LDT 415B</td>
<td>Systematic Instructional Development for Teachers</td>
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</tr>
<tr>
<td>LDT 467</td>
<td>Emerging Web Technologies and Learning</td>
<td>3</td>
</tr>
<tr>
<td>LDT 527</td>
<td>(or equivalent)</td>
<td>3</td>
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</tbody>
</table>

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
- 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. (https://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:

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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
- 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. (https://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.

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<td>(or equivalent)</td>
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12 credits chosen in consultation with an adviser. These courses can be chosen from, but are not limited to:

- LDT 401
- 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

- 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
Core Competency Courses

Core competencies are represented by a number of courses including (but not limited to): 1

<table>
<thead>
<tr>
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<tr>
<td>LDT 505</td>
<td>Integrating Mobile Technologies into Learning Environments</td>
</tr>
<tr>
<td>LDT 550</td>
<td>Learning Design Studio</td>
</tr>
<tr>
<td>LDT 586</td>
<td>Diffusion and Adoption of Innovations and Change</td>
</tr>
<tr>
<td>LDT 544</td>
<td>Video for Instruction, Training, and Research</td>
</tr>
<tr>
<td>LDT 549</td>
<td>Current Topics in Emerging Technologies</td>
</tr>
<tr>
<td>LDT 574</td>
<td>Applied Qualitative Research for Work Practice, Innovation, and Systems Design</td>
</tr>
<tr>
<td>LDT 575</td>
<td>Designing Experimental Research in Learning, Design, and Technology</td>
</tr>
<tr>
<td>LDT 576</td>
<td>Design-based Research Methods, Applications for Educational Research</td>
</tr>
<tr>
<td>LDT 832</td>
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Research Courses

<table>
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<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>LDT 594</td>
<td>Research Topics</td>
</tr>
</tbody>
</table>

Total Credits 30

1 As an example, a doctoral student interested in the instructional design core competency might be advised to take LDT 550, 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.