

# LEARNING, DESIGN, AND TECHNOLOGY, MASTER OF EDUCATION

## Overview

The online, 30-credit (10 courses) Master in Education (M.Ed.) in *Learning Design and Technology (LDT)* program equips students with the critical skills and knowledge needed to navigate and advance in the ever-evolving landscape of educational technology. Designed for educators, instructional designers, trainers, and learning leaders, the program integrates theories and ideas from the learning sciences and critical systems thinking to prepare graduates to design, evaluate, and implement technology-enhanced learning experiences.

The LDT program combines practical skill development with a reflective, ethical approach to technology use. Students gain hands-on experience in instructional design, AI and data-driven learning, human-centered design, and technology leadership, ensuring they can apply these skills in K-12, higher education, corporate, and nonprofit settings. At the same time, the program challenges students to critically examine how educational technologies influence learning environments and society, ensuring that innovation serves diverse learners and communities.

With a strong emphasis on real-world application, the coursework includes project-based learning, case studies, simulations, and collaboration with industry and educational partners. Learners may take a three-credit internship with industry or higher education partners for an experiential learning opportunity. Graduates emerge prepared to design inclusive learning experiences, implement emerging technologies responsibly, and lead organizations through technological change.

## Program Requirements (30 credits)

In addition to the course requirements below, students will work with their faculty mentor to build a required portfolio that demonstrates their learning over the course of the program. While required, the portfolio does not carry course credit. An option to complete a three-credit internship with industry or higher education partners is available.

Please see the additional GPA and Grade Requirements on the Graduation page (<https://e-catalogue.jhu.edu/education/graduation/>).

Code	Title	Credits
<b>Foundation Courses</b>		
<i>Taken sequentially in first two terms of enrollment</i>		
ED.893.652	Learning Sciences Studio: Theory, Analysis, and Educational Technology Design	3
ED.893.654	Critical Perspectives in Educational Technology	3
<b>Required Specialization Courses</b> <sup>1</sup>		
<i>Taken sequentially over three terms</i>		
ED.893.655	Applications of Learning Experience Design	3
ED.893.656	Advanced User Experience and Interaction Design for Learning Environments	3
ED.893.658	Leadership, Strategy, Evaluation, and Program Development in Learning Experience Design	3
<b>Required Research Methods Courses</b>		
ED.830.600	Introduction to Social Science Research	3

Research Methods II (Title TBD)	3
<b>Elective Courses</b> <sup>2</sup>	<b>6</b>
ED.893.653 AI in Education	
ED.893.628 Gaming and Simulations for Learning	
ED.893.651 Computational Thinking for K-12 Educators	
<b>Capstone Course</b>	
Capstone in Learning Design and Technology	3
<b>Total Credits</b>	<b>30</b>

<sup>1</sup> The specialization courses listed here are for the Learning Experience Design specialization.

<sup>2</sup> Students must take two elective courses - 6 credits - in consultation with their faculty mentor. Electives may be taken from outside the program and in other JHU divisions. The three electives listed are examples.

## Sample Program Plans

### FULL TIME

Course	Title	Credits
<b>First Year</b>		
<b>Summer Term</b>		
Orientation		
<b>Credits</b>		<b>0</b>
<b>Total Credits</b>		<b>0</b>
<b>Second Year</b>		
<b>Fall</b>		
ED.893.652	Learning Sciences Studio: Theory, Analysis, and Educational Technology Design	3
ED.830.600	Introduction to Social Science Research	3
Elective Course 1		3
<b>Credits</b>		<b>9</b>
<b>Spring</b>		
ED.893.654	Critical Perspectives in Educational Technology	3
ED.893.655	Applications of Learning Experience Design	3
Research Methods II (Title TBD)		3
<b>Credits</b>		<b>9</b>
<b>Summer Term</b>		
ED.893.656	Advanced User Experience and Interaction Design for Learning Environments	3
Elective Course 2		3
<b>Credits</b>		<b>6</b>
<b>Second Year</b>		
<b>Fall</b>		
ED.893.658	Leadership, Strategy, Evaluation, and Program Development in Learning Experience Design	3
Capstone in Learning Design and Technology		3
<b>Credits</b>		<b>6</b>
<b>Total Credits</b>		<b>30</b>

\* Courses must be taken in the order listed, as each course serves as a prerequisite for the next.

## PART TIME

Course	Title	Credits
<b>First Year</b>		
<b>Summer Term</b>		
Orientation		
	<b>Credits</b>	<b>0</b>
	<b>Total Credits</b>	<b>0</b>
<b>Second Year</b>		
<b>First Year</b>		
<b>Fall</b>		
ED.893.652	Learning Sciences Studio: Theory, Analysis, and Educational Technology Design	3
ED.830.600	Introduction to Social Science Research	3
	<b>Credits</b>	<b>6</b>
<b>Spring</b>		
ED.893.654	Critical Perspectives in Educational Technology	3
ED.893.655	Applications of Learning Experience Design	3
	<b>Credits</b>	<b>6</b>
<b>Summer Term</b>		
ED.893.656	Advanced User Experience and Interaction Design for Learning Environments	3
Elective Course 1		3
	<b>Credits</b>	<b>6</b>
<b>Second Year</b>		
<b>Fall</b>		
ED.893.658	Leadership, Strategy, Evaluation, and Program Development in Learning Experience Design	3
Research Methods II (Title TBD)		3
	<b>Credits</b>	<b>6</b>
<b>Spring</b>		
Elective Course 2		3
Capstone in Learning Design and Technology (Course number TBD)		3
	<b>Credits</b>	<b>6</b>
	<b>Total Credits</b>	<b>30</b>

\* Courses must be taken in the order listed, as each course serves as a prerequisite for the next

## Learning Outcomes

### Master of Education (M.Ed.) in *Learning Design and Technology (LDT)*

#### 1. *Theory and Evidence in the Design of Experiences and Solutions*

Focusing on the integration of theoretical and empirical evidence from the learning sciences, media, and technology to design effective digital learning experiences and solutions. Learners will be able to:

- Describe and differentiate theories and ideas from the learning sciences, motivation, and media/technology.
- Use a variety of digital technologies to develop learning experiences or solutions for different learning environments and learners.
- Analyze and evaluate design options to identify appropriate and applicable theories and practices to accomplish intended instructional outcomes in a given context and for a learner population.
- Justify design and deployment decisions based on theory, ideas, models, or evidence.
- Design, develop, and deploy digital education solutions grounded in ideas and theories from the learning sciences, motivation, and media/technology.

#### 2. *Ethical and Human-Centered Learning Solutions*

Emphasizing the creation of learning solutions that are ethical, inclusive, and focused on the diverse needs of learners, adhering to best practices and industry standards. Learners will be able to:

- Identify and distinguish among diverse learner needs and incorporate these considerations into technology-supported learning experiences and solutions.
- Apply systematic models and systems thinking to create ethical, learner-focused digital tools and curricula.
- Evaluate learning solutions to ensure they advance equity and inclusivity across varied contexts.
- Design and develop accessible, inclusive, and flexible technology-supported learning experiences or solutions.

#### 3. *Collaboration and Leadership in Educational Technology*

Focusing on effective collaboration with stakeholders and leadership in the design, implementation, and evaluation of educational technology solutions. Learners will be able to:

- Collaborate with various involved and interested parties in a constructive, professional, and respectful way.
- Communicate shared visions for technology-supported learning experiences.
- Lead efforts to ensure the quality of technology-supported learning experiences.
- Lead ongoing evaluation efforts to continuously improve the selection and implementation of technologies and technology-based solutions.
- Collaborate and lead to develop evidence-based solutions to address instructional and/or programmatic needs using a variety of appropriate educational technologies and techniques.

#### ***4. Communication Competence***

Communicating design and pedagogical decisions effectively using various media and tailored to diverse audiences. Learners will be able to:

- Craft effective messages using appropriate media in written, verbal, and visual modalities.
- Articulate and justify pedagogical, design, and development decisions to diverse audiences.
- Communicate effectively with all invested parties to facilitate the design and development of learning products and solutions.

#### ***5. Sociocultural Aspects of Educational Technology***

Addressing the analysis of sociocultural factors, including power dynamics and privilege, and developing solutions to mitigate inequities in the design and deployment of educational technology and technology-supported solutions. Learners will be able to:

- Analyze how socioeconomic systems influence technology adoption and evaluation.
- Evaluate power dynamics and privilege affecting educational technology designs and implementations.
- Develop solutions to address and prevent injustices through educational technology designs and implementations.
- Design and develop equitable, inclusive, and accessible technology-supported systems, processes, and products.

#### ***6. Data-Informed Learning Design, Implementation, and Evaluation***

Using data to inform the design, development, and evaluation of learning experiences and technology-supported solutions, ensuring continuous improvement through evidence-based decision-making. Learners will be able to:

- Collect data using a variety of evaluation and research methods to gain insights into learner and educator needs and tools effectiveness.
- Use data to revise designs, practices, and goals based on evaluation data for continuous improvement.
- Analyze educational data using qualitative, quantitative, and mixed methods.
- Design and implement comprehensive data collection and analysis efforts to inform decisions concerning design, development, delivery, and evaluation of programs, processes, and/or products.