

LDLS-Learning Design & Learning Science

Courses

LDLS 620. Learning Design Research Methods. 3 Hours.

This course surveys research methodologies used in the Learning Sciences and learning design, with an emphasis on design-based research. Students will collect and analyze qualitative data, conduct learning experience network analysis, and use research to drive iterative design improvements.

LDLS 630. Design Thinking for Engaged Learning. 3 Hours.

This course investigates the synergies between design thinking and learning experience design. This course emphasizes the utilization of design thinking methodologies as both a design tool and a subject of instruction to foster deep engagement and intrinsic motivation. In this course, students will explore design thinking processes and mindsets and apply them to create engaging, learner-centered learning experiences.

LDLS 680. Game-Based Learning. 3 Hours.

In this course, students will unpack the intricacies of game-based learning (GBL), differentiating it from gamification and examining its potential for identity exploration. Students will design immersive learning experiences that leverage the intrinsic motivations and affordances provided by both experiential and generative game-based learning.

LDLS 681. Learning Design With and For Augmented Intelligence. 3 Hours.

This course is a foray into the cutting-edge intersection of the Learning Sciences and artificial intelligence (AI), characterized by a framing of AI as augmented intelligence. Students will develop AI literacy and leverage AI tools for designing learning experiences and design experiences that incorporate AI, all within a framework of extended and distributed cognition.

LDLS 682. Complex Systems. 3 Hours.

This course provides a complex systems perspective on learning contexts. Students will engage with various complex systems theories, including complex dynamical systems, complex adaptive systems, and complex conceptual systems. Students will analyze learning as a complex system and design experiences that embrace this complexity.

LDLS 683. Designing for Creativity in Learning. 3 Hours.

This course investigates the nuances of creativity in learning experiences and contexts. It focuses on frameworks, evaluations, and designs to nurture creative mindsets, creative environments, creative processes, and creative cognition. Students will utilize the Creativity Landscape framework to analyze and design learning experiences that are optimized for fostering creative thinking and action.

LDLS 684. Theory Building in the Learning Sciences. 3 Hours.

This course focuses on theory-building methodologies within the Learning Sciences. It explores approaches to developing new theories and building on existing theories to advance learning design and the Learning Sciences. Students will engage with grounded theory and design-based research methodologies to contribute to the body of theoretical knowledge in the field.

LDLS 685. Frontiers in the Learning Sciences. 3 Hours.

This course explores emerging topics, paradigms, methodologies, and debates in the learning sciences through a combination of readings, discussions, and hands-on activities. The specific content evolves each year to reflect the latest research and innovations in the field.