Learning Technologies Courses (LRNTECH)

Courses

This is a foundational course that prepares secondary pre-service educators to facilitate student learning in technology-rich high school environments. The course provides hands-on experiences integrating technology, pedagogy, and content knowledge to support clearly-defined student learning outcomes. Pre-service teachers select and design technology-enhanced learning tools to promote collaboration, creativity, communication, and higher-order thinking skills in the classroom. Students explore contemporary topics related to educational media and technology trends in education. The following majors are waived from LRNTECH 1020: Department of Technology, Music Education, Art Education, Secondary Science teaching (Science Education, Biology, Chemistry, Earth Science, Mathematics Education and Physics), Secondary Business Education teaching, and Modern Language education. (Fall and Spring)

Students engage in student-driven, project-based, hands-on learning opportunities. This involves connecting with local schools and technology specialists in the area, experimenting with the new interactive classroom tools, and engaging in problem-based learning. Techniques will be used to expand creativity of learners, collaboration and other higher-order thinking skills, while building the digital backpack of educators. Prerequisite(s): LRNTECH 1020 or LRNTECH 1031. (Spring)

LRNTECH 1031. Educational Technology and Design — 3 hrs.
This is a foundational course that prepares early childhood, elementary, and middle level pre-service educators to facilitate student learning in technology-rich Pre-K-12 environments. The course provides hands-on experiences that integrate technology, pedagogy, and content knowledge to support clearly-defined student learning outcomes. Pre-service teachers select and design technology-enhanced learning tools to promote collaboration, creativity, communication, and higher-order thinking skills in the classroom. In support of Iowa DoE's adoption of Computer Science Teachers Association (CSTA) Standards, the course includes a unit on integrating computer science and computational thinking in the mainstream K-12 curriculum. Students explore contemporary topics related to educational media and technology trends in education. (Fall and Spring)

LRNTECH 4110/5110. Developing and Directing Online Learning — 3 hrs.
Students explore online learning and pedagogical considerations when teaching at a distance. Students will actively engage in creating effective distance education experiences that engage online learners, address learner needs, and foster interactive learning environments. Prerequisite(s): LRNTECH 1020 or LRNTECH 1031; junior standing. (Spring)

LRNTECH 4138/5138. Understanding Visual Literacy — 3 hrs.
The use of computer-generated imagery in media is often misinterpreted, blurring the line between reality and fiction. This course empowers students to critically interpret visual messages, explain their impact on world cultures, and analyze how visuals influence learning and perception. Experiences will inform, extend, and empower students to be effective educators, designers, and leaders. Prerequisite(s): junior standing. (Fall)

LRNTECH 4153/5153. Developing Digital Learning Environments — 3 hrs.
Involves students in integrating leading-edge research about developing digital learning environments with hands-on experience. Students use digital and social media to create an inclusive interactive instructional environment and document their pedagogical choices as a final project. Prerequisite(s): LRNTECH 1030; junior standing. (Fall)

LRNTECH 4160. Learning Technology Projects — 1-3 hrs.
Independent learning technology projects. Credit to be determined at the time of registration; project, credit, and evaluation criteria require advance consent of instructor. May be repeated for a maximum of 3 hours. (Variable)

Individualized study of a specific problem or application in an area as determined by instructor and student. Prerequisite(s): junior standing. (Fall, Spring, Summer)

LRNTECH 4189. Readings in Learning Technology — 1-3 hrs.
Independent instructional technology projects. Credit to be determined at time of registration; project, credit and evaluation criteria require advance consent of instructor. (Fall, Spring, Summer)

Action research engages educators with systematic investigation of practical solutions that improve their teaching practice. This course engages students in creating an action research proposal and preparing an IRB application for research. This proposal may be used as a starting point for the final masters paper. Prerequisite(s): LRNTECH 6240. (Fall)

LRNTECH 6215. Designing and Implementing Professional Development — 3 hrs.
This course emphasizes planning and producing activities essential for creating effective professional development in a range of formats. This course provides students with the vision and skill to design professional development experiences in a variety of formats, including flipped, hybrid, web-enhanced, and fully online. Students in the cohort will collaborate on the development, marketing, and implementation of a professional development conference, webinar, or other PD experience offered to a real-world audience. Prerequisite(s): LRNTECH 5110. (Summer)
LRNTECH 6237. Creating Change through Digital Leadership — 3 hrs.
Explores leading change towards 21st century learning. Change theory is introduced and then applied to everyday educational systems. Leadership skills are developed through both theory and practical applications. (Fall)

LRNTECH 6240. Understanding Instructional Design — 3 hrs.
Students will apply a systematic instructional design model from the initial analysis through design, development and evaluation. Students will master the fundamental practices upon which the instructional design process is based. (Spring)

LRNTECH 6250. Writing a Graduate Paper/ePortfolio — 3 hrs.
This course refines skills in writing a Masters level Literature Review through the research, reading, writing and formatting of the paper. The Masters ePortfolio is organized, formatted and development begun. (Fall)

LRNTECH 6260. Advanced Learning Technology Projects — 1-3 hrs.
Independent learning technology projects. Credit to be determined at time of registration; project, credit and evaluation criteria require advance consent of instructor. May be repeated for maximum of 3 hours. (Fall, Spring, Summer)

LRNTECH 6285. Readings in Learning Technology — 1-3 hrs.
Reviews individualized selected readings in an area of emphasis as determined by instructor and student. May be repeated for maximum of 3 hours. (Fall, Spring, Summer)

Individualized study of a specific problem or application in an area as determined by instructor and student. (Fall, Spring, Summer)

Provides the opportunity for candidates to explore a variety of topics in preparation for their profession. (Variable)

Students will be provided the opportunity to spend significant time on-site in a supervised position. This practicum experience assists students in discovering, developing and refining necessary competencies and skills for their proposed career goals. (Variable)

LRNTECH 6299. Research — 3 hrs.
Students complete their masters literature review/project report/original research/journal article during this course. This is the final course of the program. Prerequisite(s): consent of department. (Fall, Spring, Summer)

LRNTECH 7340. Designing Instructional Systems — 3 hrs.
This doctoral level course engages students in creating innovative instructional projects by applying current research, multiple instructional design models and learning theories in the systematic instructional design process. (Variable)