IU Learning Sciences Course Offerings 2013-2015 and Descriptions

2014 Spring (Variable Topic Courses Described Below)
P540 Learning & Cognition in Education, Nussbaum, W 100-330
P540 Learning & Cognition in Education, Online, Coles
P573 Apprenticeship in the Learning Sciences, Hickey, M 1100-100
P574 Topical Seminar, Computational Technologies in Educational Ecosystem, Danish, Online
P631 Theorizing in Context: Situative and Sociocultural Theories, Hickey, W, 1130-200

2014 Summer
P507 Assessment in Schools, Hickey, 12-week term, online
P540 Learning & Cognition in Education 1st six-week term, TuTh 1240-340
P540 Learning & Cognition in Education, 12-week term, online

2014 Fall (Requested)
P540 Learning & Cognition in Education, FTF and Online
P544 Applied Cognition & Learning Strategies, Duncan, Tu 9:30-1230
P573 Apprenticeship in the Learning Sciences, Peppler, M 9:30-12:15
P574/F-401 Games and Learning, Duncan, Tu/Th 100-215
P674 Theorizing Learning in Context, Cultural Psychology, Hmelo-Silver, W 930-12
P674 Capturing Learning in Context, Design-Based Research, Hickey, Tu 930-1200

2015 Spring (Expected)
P540 Learning & Cognition in Education, FTF and Online
P572 Introduction to the Learning Sciences, Hmelo-Silver
P674 Topical Seminar in the Learning Sciences, Activity Theory (Theorizing), Danish, TBD
P573 Apprenticeship in the Learning Sciences, Peppler, M 9:30-12:15
P674 Topical Seminar in the Learning Sciences, Constructionism (Theorizing), Peppler, TBD
P674 Topical Seminar in the Learning Sciences, Designing For Playful Learning (Designing), Duncan, TBD?

UNDERGRADUATE COURSES

EDUC F 401. Games and Learning. (3 cr.). Survey of games and learning research, in order to engage with a wide range of theories of learning and educational design concerns. Topics include approaches to understanding learning as evinced through game play (in digital and non-digital forms); game design and design thinking; learning through interactions in gaming culture; the development of games for learning; "gamification," or the application of game-like interactional structures to non-game environments; "digital media and learning" and interest-driven learning; and how a focus on play-based youth cultures may help to reshape directions in teaching and educational research.

500-LEVEL COURSES

EDUC-P 507 Assessment in Schools (3 cr.) Introductory assessment course for teachers and school administrators. Topics include principles of assessment, formal and informal classroom assessment instruments and methods, formative and summative assessment, interpretation and use of standardized test results, social and political issues in assessment, use of student data bases in schools. Typically taught online by Dr Hickey twice a year. Definitely not just of teachers and administrators; useful for anyone who needs to develop or use assessments. But not a substitute for Y527 Educational Assessment and Psychological Assessment.

EDUC-P 540 Learning and Cognition in Education (3 cr.) Survey of theoretical positions in the areas of learning and cognition, with emphasis on their relevance for the design of classroom learning situations. Typically taught FTF and online every semester by a range of faculty and instructors.
EDUC-P 544 Applied Cognition and Learning Strategies (3 cr.) Survey of applied cognitive psychology, including information processing, schema theory; cognitive and metacognitive learning strategies; reading comprehension; mnemonic devices and other study skills; expert-novice research; technology related learning supports; process and protocol analysis; problem representation and problem solving in math; and new assessment tools and measures. Typically taught every Fall by an LS faculty member.

EDUC-P 572 Introduction to the Learning Sciences (3 cr.). The course is a review of the major philosophies, methodologies, and conceptual systems that shape the learning sciences. Typically taught every Spring by an LS faculty member (but not Spring 2014).

EDUC-P 573 Apprenticeship in the Learning Sciences (1-3 cr.). These are weekly meetings with faculty and doctoral students. Format and emphases vary by instructor but most involve supervision of student research and scholarly writing, shared reading of research papers, writing and refinement of co-authored papers, writing conference proposals, reviewing journal submissions and conference proposals.

EDUC-P 574 Topical Seminar in Learning Sciences (1-3 cr.) Special topic seminars by learning science faculty or visiting scholars. Potential topics include higher education pedagogy, embodied cognition, gaming/simulation in problem solving. Taught by LS faculty members who focus the seminar on an area in which they are an expert. Trying to offer at least one every Spring and every Fall, and may be face-to-face, online, or combined.

600 LEVEL COURSES: The prerequisite may be waived or substituted at the instructor’s discretion.

EDUC-P 631 Theorizing Learning in Context (3 cr.) (P: P572) Course examines and analyzes the fundamental ideas about learning and knowing that engage the field. Specifically, this course will consider four aspects of knowing and learning: epistemological perspectives; cognitive development; motivation; and learning theory. Taught by an LS faculty member every Spring focusing on a particular theory.

EDUC-P 632 Designing for Learning in Context (3 cr.) (P: P572): Course examines current design frameworks based on contemporary learning theory, experiencing exemplary learning environments, and understanding the resulting research. The goal of this course is the ability to design learning environments that have a local impact on the learners as well as a scholarly impact. Taught by an LS faculty member every Fall focusing on a particular approach.

EDUC-P 633 Capturing Learning in Context (3 cr.) Course examines theories and methods for capturing, supporting, and assessing knowing and learning as it occurs in Context, in order to build theory while refining practice. Each student will carry out and document knowing and learning in at least one context using at least two different methods to capture learning. Taught by an LS faculty member once per year focusing on a particular method.

EDUC-P 674 Advanced Topical Seminar in Learning Sciences (1-3 cr.) P: P574 or 12 hours of graduate coursework. Topical seminar for doctoral students in Learning Sciences. Possible topics include higher education, pedagogy, embodied cognition, gaming/simulation, and problem solving. Taught as needed by an LS faculty member.

UPCOMING TOPICAL SEMINARS AND VARIABLE TOPIC COURSES

Spring 2014. P574 Computational Technologies in Educational Ecosystems (Theorizing with permission). Dr. Danish. This survey course helps participants think about how different technologies fit into a variety of learning contexts. We’ll examine physical and intellectual contexts, like location (in or out of school), local culture, learning goals, and the organization of a learning activity, that make up complex learning ecologies.
In the first part of the course we will examine several theoretical frameworks designed to conceptualize the role of technology in learning. Students will begin to develop their own approach to evaluating the fit between a proposed technology and a learning context of their choosing. Then, we will examine original academic papers that report upon experiments in which learning technologies were implemented in a variety of educational contexts. Learning technologies examined will include but are not limited to e-puppets, cognitive tutors, programming languages, computer simulations, drill and practice software, participatory simulations, augmented reality, video games, and mobile technologies.

Spring 2014. P631 Theorizing Learning in Context: Situative and Sociocultural Theories of Knowing and Learning. This course will examine contemporary situative and sociocultural theories of knowing, learning & transfer of learning, and their implications for teaching, motivating, and assessing. Each student will develop a literature review paper that considers these theories and implications from the perspective of a particular educational aim that embodies their current and aspirational professional context. The class is also designed so that students will also learn to (a) find and review relevant research literature, (b) navigate the nuances of scholarly referencing, and (c) synthesize relevant research in useful ways. This will be a small class and will be a good opportunity to practice and improve scholarly writing.

Fall 2014 P574 Games and Learning. Dr Duncan. In most contemporary videogames, learners do not mindlessly click buttons, but instead engage rich narrative storylines and employ complex discursive practices and problem solving strategies as they come to master and appreciate the underlying game dynamics. Scholars are increasingly documenting the discursive richness, depth of collaborative inquiry, complexity of game play, opportunities for consequentiality, rich perception-action cycles, exploration of situated identities, and complex forms of learning and participation that can occur during game play. Students will explore the power of games for education. We will play games, read about games, theorize about games, and even create games.

This course will be both practical and theoretical, pushing students to critically examine game play, claims and theories related to game play, and then exploring the implications for game and education design. Class activities will include a mixture of group work, class discussions, Socratic dialogues, lectures, readings, essays, and hands-on activities. And, yes, you will be required to play games, ranging from Zelda on a Nintendo DS to Rock Band on a platform to World of Warcraft on a PC.