Master of Arts in Learning & Design
Fall 2018 Courses

This catalog provides information for the Fall 2018 course offerings for the Master of Arts in Learning and Design, including class schedule and descriptions. If you have any questions about these offerings, please contact MLD Program Coordinator, Kim Luciano at kl791@georgetown.edu or 202-687-1882.

MLD Schedule of Courses

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FALL 2018 COURSE OFFERINGS

FOUNDATIONS COURSE

**Class:** LDES-501-01 Integrated Introduction to the Field  
**Instructor:** Edward Maloney et., al  
**Credits:** 2  
**Description:** The course will introduce students to Graduate Studies in the Field of Learning Design, Technology and Innovation, Learning Analytics, and Higher Education Leadership. Students will learn about the interconnectedness of critical concepts, gaining an understanding of how learning design, technology innovation, learning analytics, and higher education leadership impact one another in the field. Students will build a strong knowledge-base that will facilitate their navigation of learning challenges and solutions.

CORE COURSES

**Class:** LDES-501-01 Methods of Learning and Design  
**Instructor:** Maggie Debelius & Yianna Vovides  
**Credits:** 3  
**Description:** This survey course draws on multiple disciplines to consider what learning is and how it happens. How do students process new information? What can you do to facilitate deep learning for students from varied backgrounds? Can there be universal design for learning? What is agility in learning and design methods? Learning key principles for how people learn and retain material will prepare you to design valuable learning experiences in higher education and beyond.

**Class:** LDES-502-01 Technology & Innovation by Design  
**Instructor:** Edward Maloney  
**Credits:** 3  
**Description:** In this course, you will explore the role of technology and innovation in higher education. Taking into account historical and current educational challenges in higher education, you’ll explore the ways that institutions of higher education and student populations have changed over time, impacting the ways we use technology in education today. In addition to creating dynamic definitions of a variety of concepts, we will explore the challenges, opportunities, and effects technology and innovation—as well as theories of disruption and integration—have had on higher education. By the end of the semester, it is my hope that you will be adept at understanding the questions, contexts, and opportunities that technology affords higher education, and the role that innovation plays in the formation of students, the creation of new knowledge, and higher education’s contribution to civic and common good. As part of the
studio approach to the course, you will design and propose ways that technology innovation can spur systemic change across the curriculum and beyond it, and investigate and integrate theories and models in balance with a practical understanding of past, current, and future educational technologies. Readings will include works by Christensen, Crow, Davidson, Bowen, and others.

ELECTIVE COURSES

Class: LDES-701-01 Mixed Methods
Instructor: Shannon Mooney
Credits: 3
Description: This course is designed for MLD students who wish to develop the ability to interpret peer-reviewed research in learning analytics and intersecting fields. Students will think intentionally about research philosophies and the research design process, gaining insights into the decisions made by researchers at various stages of a project. Of particular interest will be researchers’ argumentation strategies for communicating the purpose, generalizability, and importance of their work.

This class will be primarily discussion- and workshop-based. Through weekly reading discussions, students will come to be exposed to a multiplicity of research designs and explore the broad scope and growth potential of the field of learning analytics. Research materials to support an ongoing semester-long research project will be designed in weekly workshops, progressing from the initial stages of hypothesis formation to the final stages of analysis, conclusions, and broader impacts. Students will end the semester with a completed pilot of a research project as well as an intentional strategy for interpretation and communication around that project.

Class: LDES-702-01 Studies in Educational Technology
Instructor: Jim Groom
Credits: 3
Description: This course will invite students to examine the evolution of educational technology in higher education through various lenses, some broad such as sociocultural and legal, while others more focused on information systems and management, instructional development, and innovation. Conducted as an exploration of the history of educational technology, students will be invited to engage in focused research around various technologies that might act as an inflection point for the cultural assumptions undergirding the intersection of teaching and learning with technology. What’s arguably unique about this course is that students will work both independently and together to create a series of video segments wherein their research will be shared more broadly as part of an ongoing video series. The course will oscillate among
several elements: broad reading, focused research, and applied creative video production. The course will be a hybrid format, so we will meet face-to-face for at least 6 weeks of the semester, and remotely for the remainder.

Class: LDES-703-01 Studies in Higher Education
Instructor: Bryan Alexander
Credits: 3
Description: This class will explore the varied and complex forces reshaping higher education. We start with change drivers outside of academia, including demographic, macroeconomic, and policy trends. We then address forces within higher education, such as new credentials, enrollment changes, the role of the library, tuition, and access. Next, we dig into digital technologies and their impact on colleges and universities. For final projects students will produce scenarios for possible future campuses. Throughout the course, students will create an online research presence, curating materials through RSS reading, social bookmarking, or blogging. Readings will be drawn from recent scholarship and articles. Readings will also include books by Claudia Goldin and Lawrence F. Katz (The Race between Education and Technology), Tressie McMillan Cottom (Lower Ed: The Troubling Rise of For-Profit Colleges in the New Economy), and Nathan D. Grawe (Demographics and the Demand for Higher Education). Final projects make take the form of: a simulation game; multiple scenarios for future universities; a sustained video argument; a multimedia digital essay."

Class: LDES-705-01 ‘Diversity’ in Higher Education: Discourse, Policy, Practice
Instructor: Michelle Ohnona
Credits: 3
Description: From mission statements to admissions protocols, and from informational brochures to capital campaigns, commitments to the concept of diversity are plentiful in academia. Alongside concerns from students, faculty and staff about equity and access in institutions of higher education, the past two decades have seen an increase in use of the concept of ‘diversity’. How has the increased use of diversity discourse impacted access and equity in academia? Do these statements of principle always translate into change in classrooms and on campuses? This course will provide an overview of diversity frameworks as they relate to discourse, policy and practice in higher education. Using readings and case study analyses, we will explore how the language of diversity has shaped the landscape of higher education, how it has impacted policy decisions and shifts, and what its practical applications might be in the contexts of pedagogy, faculty development, institutional structure, and student support. Throughout the course, students will work in small groups on designing initiatives aimed at responding to a problems surrounding equity and inclusion in higher education.
1-CREDIT ELECTIVES

**Class:** LDES-601-01 The Creative Process  
**Instructor:** David Ebenbach  
**Credits:** 1  
**Description:** What is creativity? Where does it come from? How does it work? In this class, we'll sample many perspectives—scientific, spiritual, self-help, and the lived experiences of creators themselves—in our attempts to explore and understand creativity and the creative process. In addition to analytical work (discussing and writing about these ideas), students will also apply the concepts to their own creative work, work they will produce during the course of the class. This bi-weekly course will start on September 5th and take place every other week.

**Class:** LDES-602-01 Introduction to R  
**Instructor:** Shannon Mooney  
**Credits:** 1  
**Description:** R is an open-source programming language that lends itself particularly well to data analysis, as it is easy for developers from around the world to create add-on packages to suit almost any dataset, purpose, framework, and field. Day one of this course will provide an introduction to the basic syntax of the R environment and a functionally-oriented tour of the RStudio interface, followed by some hands-on experience with vectors and dataframes. Day two of the course will offer a deeper exploration of a single complex dataset, with an introduction to manipulation and visualization of data with dplyr and ggplot2 respectively.

**Class:** LDES-603-01 Designing for Context: Approaches to Blended Learning  
**Instructor:** Kim Huisman Lubreski and Sarah Workman  
**Credits:** 1  
**Description:** This course will introduce students to the principles and pedagogies of blended learning design (sometimes referred to as flipped, hybrid, or mixed-mode learning). Through a series of discussion-based workshops (in person and online) and hands-on design sessions, students create a blended learning simulation to address a learning challenge for a particular community/audience. As part of this process, students will consider various pedagogical rationales for blended learning, explore ways to optimize student engagement, engage with tools to integrate traditional in-class learning with learning beyond the classroom, and identify strategies to manage multiple learning environments. Students will be encouraged to explore the relevance of inclusive pedagogy and universal design for learning in relation to blended learning. They may also have the opportunity to shadow/interview Georgetown faculty members participating in the Technology Enhanced Learning Colloquium on Blended Learning and share their experiences with the class.
Class: LDES-604-01 Facilitation Skills for Effective Teaching
Instructor: Joselyn Schultz Lewis
Credits: 1
Description: Higher education teaching and learning environments are intergroup spaces that require intentional facilitation in order to optimize learning and communication. This class will provide students with an opportunity to learn and practice concepts and skills for facilitating classroom discussions, meetings, workshops, and conversations with an emphasis on increasing engagement, equity, and participation.

CROSS-LISTED COURSES

Class: LDES-650/PBIO-699 Learning Design and Science Education
Instructor: Adam Myers and Susan Mulroney
Credits: 2
Description: This new course is designed as an elective for the Master's in Learning Design Program and for graduate students in Medical Center graduate programs (with permission of the faculty). It will focus on learning design and educational technology for teaching in the sciences, through a combination of seminar and studio classroom sessions designed to provide hands-on, team-based experience in learning design. Students will gain experience in the use of learning management systems, audience response technology, blogging and discussion boards, hybrid learning and flipped classroom strategies, as well as other methodologies and platforms. In the studio portion of the course, groups of students will employ these methods and platforms to design a short course. They will also work toward articulating their personal teaching philosophies and establishing a teaching portfolio.

Class: CCTP-711: Semiotics & Cognitive Techs
Instructor: Martin Irvine
Credits: 3
Description: This course introduces major topics of current research and theory on human meaning systems, the nature of symbolic cognition, and the functions of technical mediation from an interdisciplinary perspective. The main objective is learning the major features of human meaning systems and their recent implementations in media, interfaces, and computational architectures for a better understanding of their core functions and design principles that have “open extensibility” for new and future developments. Motivated by research in the cognitive sciences, many disciplines are now converging on major questions surrounding the nature of human symbolic cognition and cognitive technologies (the technologies for symbolic representation, media, information, and communication). We will draw from key research and theory in several intersecting fields: linguistics; the study of meaning systems and human symbolic artifacts (semiotics); communication and information theory; media theory and
human-computer interface (HCI) design; theories of computation; cognitive anthropology and archaeology; artificial intelligence; and philosophy of language and mind. Research programs in these fields address the big questions that we will investigate: 1) What is the current state of research on the human symbolic faculties, language, and the brain/mind; that is, what are the consequences of being the “symbolic species”? 2) How and why are all our cognitive symbolic capabilities and their material encoding systems necessarily intersubjective and collective?

Class: CCTP-820: Leading by Design
Instructor: Martin Irvine
Credits: 3
Description: This course is for all students who want to participate as thought leaders in the design and implementation of technologies in any kind of social or organizational context, including public policy, application design, education, and business. To become thought leaders, we need to change our position from being merely consumers or users of technologies to participants with an ownership stake in how things are designed and implemented. This course provides the methods for this reorientation by learning the extensible design principles behind our technologies and learning how to understand technologies and media as interfaces to the technical-social systems that make them possible. We will focus on interdisciplinary methods unified by the key concepts and approaches in systems theory (complexity, networks, modularity), design thinking, computational thinking, media theory, and recent cognitive science approaches to technology, artefacts, and interfaces. Students will learn the multi-layered extensible design principles behind everything from computation, digital media, and the Internet to the architecture of mobile devices, interactive real-time apps, and Cloud computing. As a CCT Core Methods course, we will focus on building an integrative knowledge base from approaches and key concepts across multiple fields and sciences that draw from systems, complexity, and design thinking. By learning how questions, concepts, and research agendas are formed across several disciplines, students will learn how to develop new conceptual models and tools of analysis that are needed for the complex, multi-domain problems and questions that we investigate in CCT and anything that will emerge in the future. Our learning objectives involve (1) technical and conceptual knowledge (example: how and why are computers, software, and networks based on modular design principles?), (2) integrative systems thinking for understanding technical-social systems (example: why are the forces that we can’t see [standards, policy, intellectual property, industry alignments, cumulative combinations of prior technologies, etc.] the most powerful for any complex, modular technology that we can see like an iPhone?), and (3) understanding how to apply combinatorial design principles for new innovations (example: what do you need to know to design an app if you aren’t the coder?). Design principles have consequences. A concrete case is provided by Jonathan Zittrain in The Future of the Internet -- and How to Stop It. Zittrain explains how computers, computing devices, and networking have developed from models for open, generative architectures to our current black-boxed “tethered appliances” controlled by a few
dominant companies. The designs for tethered devices and apps are driven by creating consumer lock-in to proprietary platforms and user accounts. Our current consumer technology “business ecosystem” positions users as tethered consumers, but the “productized” devices and closed software that support this system of market control are not determined by the properties or underlying design principles for computers, networks, and software as technologies. Without a way to understand how our current business ecosystem came to be the way it is, most people will think that the current state of closed, tethered, consumer black boxes is an “effect” of the technologies themselves. We will learn the methods to expose how these systems work and what it would take to participate in future directions with alternative designs.

Class: CCTP-617: Interaction Design
Instructor: Evan Barba
Credits: 3
Description: Whether you are an entrepreneur looking to create a new product, an everyday consumer who wants to personalize your life with interactive artifacts, or a creative spirit who wants to express yourself through physical media, knowing how to combine physical and virtual elements in meaningful ways is the most important communication skill of the 21st century. Interaction Design: Electronics And Semantics (IDEAS) will teach you how to create and test working prototypes of electronic artifacts and to understand how these artifacts acquire meaning to their users. Through lectures on basic electronics, readings on creativity and design, and hands-on exercises in prototyping techniques, this class will give you the foundation you need to begin creating physically interactive artifacts in fields like wearable computing, toy design, new media art, robotics, and many more. After mastering tutorials and exercises in topics such as circuit design, 3D modeling and printing, mold-making, and others, students will use an iterative design process to design three custom electronics projects and fabricate the containers that give them meanings as products. After completing this course students will have intermediate level knowledge of concepts in electronics and design.

Class: New! CCTP-611: Systemic Design & User Experience
Instructor: Evan Barba
Credits: 3
Description: The emerging interdiscipline of Systemic Design aims to integrate Systems Science and Design in both theory and practice. Systems science, which has been a developing meta-discipline for more than fifty years, represents a holistic worldview and new paradigm for scientific exploration. The combination of systems approaches and ever-increasing computational power has led to numerous breakthroughs in biological, physical, and social sciences as well as the humanities. Design as a practice is quite a bit older, dating back to ancient Greece in the West, but it is still relatively recently that Design has become an academic discipline as well as a practical one. Systems and Design both embrace core concepts such as holism, feedback, iteration, and intentional evolution; however, the two disciplines operate on very different scales. Systems tend to focus on large groups or geographic areas and long
time-frames. Design, on the other hand, strives to be human-centered and values deep empathy and improvement of the immediate circumstances. How can these two be reconciled within the field of Systemic Design? This course will focus on User Experience as an area for the rich exploration of the intersections between Systems and Design Thinking. Students should expect to do substantial reading on both the origins and contemporary understandings of both fields in order to identify areas of overlap and conflict and to develop original theoretical approaches that bridge these gaps. Class meetings will be divided into hour-long discussions of readings followed by practical exercises intended to sharpen design skills and provide practical experience in User Experience design.