

Course Descriptions

MA Interaction Design and MA Design Management

ADS 710 Advanced Human Factors in Interaction Design (3 credits)

The study of human factors principles and guidelines are fundamental to interaction design. In this course, these principles will be illustrated and applied to real-world design projects/problems. Human physical and cognitive capabilities, computer-human interface and systems properties, interaction design methods, and the physical and socio-cultural environment will be considered. Fundamental issues in human-centered systems, basic research methods, including statistics and literature searches, will be included. Open to all university students. Graduate students will meet concurrently with INDD 510 and receive additional course work.

ADS 712 Design Strategies and Methods (3 credits)

This course will cover the principles of design thinking, design processes, design strategies and methods, including techniques and tools for the development of human-technology interfaces. Abstract through concrete representation methods and techniques will be applied to interaction design projects/problems. Information collection and analysis methods, scenario and prototyping methods, evaluation methods (empirical), creativity methods, and task-oriented methods (non-empirical) will also be considered. Methods common to design-related disciplines in the social sciences, business, architecture, communication studies and engineering are integrated. Consent of the instructor for all non-design students. Graduate students will meet concurrently with INDD 512 and receive additional work.

ADS 714 Designing Business Services & Consumer Experiences (3 credits)

Business products, services and environments are often intermingled in ways that require more holistic ways of thinking and development. A challenge of service innovation is to design with an understanding of the many dimensions of human experience and satisfaction. This course elaborates how, where, when, and why design can enhance the value of business services. Theory, methods and practice aspects of services design are presented.

ADS 745 Branding and Design (3 credits)

A rapidly changing marketplace demands business strategy that is rooted in the dynamics of human culture, society, and psychology. Design thinking directly engages such factors and is, thus, well suited to help organizations formulate effective, versatile and strategic brands. This class focuses on strategic design analysis as a means to promote innovation in core brand development and extension into new applications and product categories. By aligning design with engineering, marketing, advertising, packaging, and service, business can innovate new sources of market value and deliver a more powerful brand messages. Consent of instructor for all non-design students.

ADS 750 Design Management (3 credits)

Design Management has been described as "applied innovation", or the methodical

capturing of talent and resources available inside and outside an organization to create valuable new offerings, brands, and business models. This course explores the design function in business as a means to solve difficult challenges and develop new market-facing opportunities. Subjects include brand value creation, differentiation, coordination, and transformation. Numerous cases will be discussed.

ADS 751 Creating Design Scenarios and Simulations (3 credits)

Most organizations are imaginatively challenged and experience difficulty innovating and marketing new concept offerings. Conventional methods spotting and validating new opportunities often lack the persuasive power necessary for change to occur. Scenario-based design and simulation offer ways of vividly representing a future that is different from the past. This course presents theory, methods and practice aspects of design scenario construction and simulation.

ADS 760 Design & Strategic Innovation (3 credits)

As companies struggle with the demands of increasing consumer power, intense competition and downward price pressures, there is a corresponding increase in the demand for more innovative business models and higher-value offerings. These forces have significantly broadened the strategic scope of design. Advanced, multi-disciplinary design teams are being engaged early to help guide new business and product development efforts. Why, where, when, and how this is done in order to deliver on the promise of innovation is the subject of this course. Prerequisite: ADS 750, or with consent of instructor.

ADS 765 Interaction Design (3 credits)

Interaction Design is about creating products, services, systems or environments that offer significant experiential value to people and economic value to organizations. This course engages the comprehensive subject of design for human experience. Building on the gamut of human factors and design methods knowledge, this offers hands-on experience in the research, analysis, modeling and simulation of original and experientially compelling design solutions. Prerequisite: ADS 710, ADS 712 or with consent of instructor.

ADS 770 Design Cognition (3 credits)

In a science of design, the study of “human designers” is as important as the study of designed artifacts or design tools. Since the beginning of research in Design Cognition, many empirical studies have opened up our understanding of human designers and the ways they design. While design is largely a mental activity, it interacts strongly with heterogeneous external representations. It encompasses problem definition and solving, analogical mappings, mental imaging and other mental processes. It requires team coordination and is situated in a cultural milieu that defines roles and modes of behavior. As such, distributed cognition, situated cognition, and social cognition – all have become relevant to the understanding of design cognition. The structure of a design task, the mental representation of design form and behavior, the structure of design teams, and the associated concepts of design cognition will be the subject of the course.

ADS 860 Graduate Synthesis and Applications Seminar (1 credit)

Group discussion and presentations on timely industry topics. Topics will be substantial, bridging relevant program subjects and professional area boundaries. May be repeated for credit up to 6 hours in subsequent semesters.

ADS 861 Thesis Research Seminar (1 credit)

Approaches to producing original design research. Methods, resources, topics, and projects are discussed and evaluated. May be repeated for credit up to 6 hours in subsequent semesters.

ADS 890 Thesis (1-8 credits)

Students in the seminar will discuss their individual research, leading to the preparation, presentation and critical evaluation of a thesis project or written thesis. May be repeated for credit up to 8 hours in subsequent semesters.