Syllabus
Design Issues in Instructional and Information Systems (LIS 287B)

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Spring 1995 / Wed 1-4 p.m.
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Office Hours: T 1-3 p.m. or by appointment

Course Description

Robert Glaser (1976:6) has said, “The essence of design is to devise courses of action aimed at changing existing situations into preferred ones.”

In practice, designers of information systems and designers of instruction are both engaged in “changing existing situations into preferred ones.” Both invoke design “rules” which guide their conceptualizing, they formulate and prescribe certain design “solutions” instead of others, and they apply particular criteria of effectiveness to evaluate whether a design “works” as intended.

In this course the idea and practice of design are considered broadly, as they relate to both instructional and information systems. Drawing from research in instructional design, information systems design, software engineering, and industrial design, this course explores a number of issues related to design (and to the process of designing) from an interdisciplinary perspective.

The course is a seminar, and students will be expected to contribute substantively to class discussions. In addition, students will be assigned exercises and will write a conference-quality research paper based on topics presented in this course.

Goals and Objectives

The main goal of the course is to familiarize students with the principles and research related to the design of information and instructional systems. In addition, the course has several objectives. As a result of their participation, all students in the seminar should be able to:

1. Identify the major concepts and finding of the current literature on design as it applies to instructional and information systems, including important research contributions and the questions, theories, and researchers associated with each;

2. Articulate their own particular interests in terms of these main research contributions;

3. Critique the major subfields of research on systems design, including a description of their strengths and weaknesses; and

4. Propose simple hypotheses or research questions in their particular areas of interest, and propose tentative research projects/plans that might answer those hypotheses/questions.
Course Requirements

Readings/Discussions. Because the course will be taught in seminar form, students will be expected to make cogent and prepared contributions to class discussions. Readings are listed below under “Weekly Topics and Readings.” All required readings will be put on reserve, unless otherwise noted; books are available at the URL Graduate Reserve desk, and journal articles are available in reserve folders in the DLIS Lab/Resource Center. There are two required texts for the class, which are available at the ASUCLA Bookstore:


Assignments. Students will write one conference-quality research paper in which they identify a research question or hypothesis relevant to information seeking behavior based on a comprehensive literature review and critique, and formulate a research design that would adequately address that question. Draft versions of the term papers will be due at approximately midterm, with final manuscripts due the last day of class. More detailed information about the paper assignment will be discussed in class.

Grading Formula. Grading for the course will be based on the following formula: Class discussion, 40%; exercises, 30%; research paper, 30%.

Weekly Topics and Readings

The topics for each week of the course are listed below, along with required and suggested readings for each topic. STUDENTS ARE REQUIRED TO COME TO CLASS HAVING READ MATERIALS ASSIGNED FOR THAT DAY.

Week 1 / April 5

Introduction to the Course

REQUIRED:


Week 2 / April 12  Definitions of Design / Design “Rules”

REQUIRED:


Week 3 / April 19  Theories of Design

REQUIRED:


Bednar, Cunningham, Duffy, and Perry, “Theory into practice: How do we link?” Chapter 2, pp. 17-34.

Merrill, M.D., “Constructivism and instructional design,” Chapter 8, pp. 99-114.


RECOMMENDED:


**Week 4 / April 26  Design Style**

**REQUIRED:**


- Chapter 2, “Ninety years on: Style in design since 1900,” pp. 33-61.


- Chapter 3, “Knowledge in the head and in the world,” pp. 54-80.


**Week 5 / May 3  Diagnostic and Prescriptive Functions of Design**

**REQUIRED:**


- Chapter 4, “Knowing what to do,” pp. 81-104.
- Chapter 5, “To err is human,” pp. 105-140.

**Week 6 / May 10  Evolution of Design: Time and Situational Factors**

**REQUIRED:**


**Week 7 / May 17**

**Evaluation Criteria: Is There a “Best” Design?**

REQUIRED:


**Week 8 / May 24**

**Design Participants and Their Roles**

REQUIRED:


Week 9 / May 31  

“User-Centered” Design

REQUIRED:


Week 10 / June 7  

Collaborative/Group Design

REQUIRED:

