Course Syllabus

DCTE 720/820 Human-Computer Interaction (Core and project) 3 and 4 credits

2001 Spring Term, March 2, 2001 – August 1, 2001, Cluster Format

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Class Location and Format: Cluster (March 2-4, 2001; June 1-3, 2001) and online
Course Internet address: http://scis.nova.edu/nova/hci/top.html
In text form from the scis system: type hci at your system prompt

Course Description:
Issues relating to effective human-computer interaction are presented. Basic elements, procedures, tools, and environments contributing to the development of successful user interfaces are explored. User interface design principles, guidelines and methodologies are reviewed. Other topics include the multidisciplinary dynamics of human-computer interaction as a field of study, current and projected developments in HCI research and usability engineering.

Required Textbooks:

3. Selected ACM articles. Contact the Program Office if you did not receive the articles with this syllabus package.
Objectives/Exit Competencies:
Upon completion of this course and project, the student will:
1. Gain insight into the field of human-computer interaction.
2. Understand how software design practices and methods can be integrated with human factors principles and methods now being employed.
3. Gain a conceptual foundation for user interface design, including design goals, models of user knowledge, interaction styles, design guidelines, and assessment of user interface design.
4. Understand the nature of the HCI design process. Apply an integrated perspective to the design process.
5. Understand the difficulties and pitfalls of translating theory and principles derived from research findings, into practical advice on system design.
6. Apply metaphorical reasoning and conceptual models to user interface design.
7. Make decisions about which interaction styles to use in different applications.
8. Be able to select and apply suitable techniques for collecting users’ requirements and analyzing tasks.
9. Become familiar with the major aspects of usability evaluation.
10. Be able to conduct usability analyses and evaluate software.
11. Understand how computer systems can enhance collaboration in the context of work organization.

Course Topics (summary):
Human-Computer Interaction as an emerging field
Human Information Processing
User experience levels
Interaction styles and general design
Interaction strategies
Interface metaphors and conceptual models
Online documentation and help systems
HCI and the World Wide Web
Task analysis
Usability evaluation
Agent technology
Collaborative systems, groupware & coordination technology
Research in HCI

Instruction Methods and Tools:
Students will use ESET to submit coursework. No email attachments of assignments will be accepted, unless pre-approved by the professor. Students will use the asynchronous Student Forums throughout the term to contribute to online class discussions.

DCTE 720 Cluster Format CORE Course Requirements:
Cluster Activities: Selected topics listed above will be introduced through lecture and discussions during cluster meetings. The concepts and applications presented in lecture are major issues
covered in the required texts and other HCI resources. In addition, students will have the opportunity to further investigate areas of their own interests. Sources will be discussed that provide advanced approaches to human-computer interaction and user interface design.

Course Activities: Students will contribute to Student Forums, a Web-based conferencing forum, at designated times throughout the term. Contributions will count as points toward the class participation grade. See the section on Student Forums in the addendum course guide for instructions on accessing and contributing to the online conference discussions.

In addition to required participation in the Student Forums, the major course requirements will consist of three assignments.

Assignment #1: Review five (5) journal articles related to the theory and practice of usability or usability evaluation as a process. Only specific HCI journals and conference proceedings may be used to select appropriate articles. One file containing all five reviews is the deliverable. Due date is: Sunday, April 8, 2001.

Assignment #2: Keep and present your own HCI journal -- containing weekly observations of the HCI issues that pertain to your work and the work of others. A written report presenting the journal entries and a summary with literature integration is the deliverable. Due date is: Monday, June 4, 2001, after the second cluster meeting. Students should be prepared to discuss selected journal entries in class.

Assignment #3: Conduct and report a usability evaluation. Due date is: Sunday, July 22, 2001.

IMPORTANT: Specific instructions for completing these assignments are contained in the addendum Course Guide. Assignments must be submitted according to the due dates specified in this syllabus. Late assignments must be pre-approved by the professor and will likely result in point reduction. ASSIGNMENTS REQUIRE OUTSIDE LITERATURE RESEARCH AND ACTIVITY.

DCTE 820 Project Requirements:
There are two deliverables, the project proposal and project final report. The project proposal is due on: Sunday, May 6, 2001. The project final report is due on: Sunday, July 29, 2001. As with the core course requirements, specific instructions for completing the project are contained in the addendum course guide.

Grading Scale and Criteria:

A ................................. 195-200 points
A- ................................. 189-194 points
B+ .................................. 183-188 points
B .................................. 177-182 points
B- .................................. 171-176 points
C+ .................................. 165-170 points
C .................................. 159-164 points
F .................................. 0-158 points
Grading Criteria For the 720 Core Course:

| Assignment #1 | 30 points |
| Assignment #2 | 65 points |
| Assignment #3 | 75 points |
| Class Participation (online) | 30 points |

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200 points total

Grading Criteria For the 820 (Project Course)

For proposal: 50 points (usually indicated during grading process as a “Pass” or “Rewrite”)
For final report: 150 points

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200 points total

Class/Course Rules:
1. **Academic Integrity and Student Original Work** (See SCIS Graduate Catalog for stated policies).
2. **Writing Skills:** Each student must demonstrate proficiency in the use of the English language in all work submitted for this course. Grammatical errors, spelling errors, and writing that does not express ideas clearly will affect your grade. The professor will not provide remedial help concerning writing problems that you might have. Students who are unable to write correctly and clearly are urged to contact their program office for sources of remedial help. All assignment and project work must conform to the form and style requirements contained in the SCIS Dissertation Guide, unless otherwise instructed by the professor.
3. **Incomplete Policy:** Incompletes will not be given for DCTE 720 and 820.
4. **Withdrawal:** (See SCIS Graduate Catalog for stated policies.)
5. **Miscellaneous rules:** (1) A student may neither do additional work nor repeat work to raise their grade. (2) Attendance at cluster meetings is mandatory. (3) Extensive literature research outside provided sources given in class is required for all work in this course. (4) Follow carefully the course guide and tips for providing quality submissions in this course. (5) Adhere to all deadlines – late arrival will likely result in point reduction. (6) To receive full class participation points for DCTE 720, every student must make steady contributions to the Forums in order to keep a healthy communication going throughout the term.

**Prepared by Laurie P. Dringus, Ph.D.**

**Bibliography and Suggested Texts:**


