Course Syllabus

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

2003 Spring Term, March 7, 2003 – August 5, 2003, Cluster Format

Professor: Laurie P. Dringus, Ph.D., Professor
Graduate School of Computer and Information Sciences
Nova Southeastern University
6100 Griffin Road
Ft. Lauderdale, FL 33314-4416
email: laurie@scis.nova.edu
Office location, third floor, room 338
Office: (954) 262-2073, Fax (954) 262-3915

Class Location and Format: Cluster (March 7-9, 2003; June 6-8, 2003) 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 Descriptions:

DCTE 720 Human-Computer Interaction (3 credits)
Techniques facilitating effective human-computer interaction are presented. Basic elements, procedures, tools, and environments contributing to the development of a successful user interface are explored. Design principles, guidelines, and methodologies for building, installing, managing, interactive systems that optimize user productivity are reviewed. Topics include the multidisciplinary dynamics of human-computer interaction, current and projected developments in HCI research, usability engineering, computer-supported cooperative work, and strategies for implementing and evaluating human-computer dialogues.

DCTE 820 Project in Human-Computer Interaction (4 credits)
Students produce a research paper or project on a current topic in HCI. Some topics of current interest include interface quality and evaluation, computer system and computer interface architecture, user and task analysis, advancements in usability engineering, Internet-based user interface design issues, legal and ethical aspects of computing, speech interfaces, agent technology, handheld and wearable technology, and computer-supported cooperative work.
Required Textbooks:
Book information:
A general text and access to the CHI conference proceedings are both required.

General HCI text
Choose one of the following:


OR


AND

Conference Proceedings
Access to one of the latest ACM SIGCHI conference proceedings. The 2002 proceedings have been published and should be available through the ACM store (http://www.acm.org). Most likely that is the only source for the 2002 proceedings. Earlier proceedings may be available through the normal book supplier channels. (Students should not order the extended abstracts.)

The conference proceedings are also available electronically through the ACM Digital Library.

CHI 2002 Conference Proceedings
ACM Press, 2002

CHI 2001 Conference Proceedings
ACM Press, 2001

AND

Selected ACM articles in the Course Guide. Contact the Program Office if you did not receive the articles with this syllabus package.
Objectives/Exit Competencies:

Upon completion of the 720 course, 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.

Upon completion of the 820 course, the student will:
1. Delve deeply into a specific area of HCI research and design and develop a prototype HCI system or write a research paper on an HCI area of current research.

Possible 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 (GSCIS 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, GSCIS’ 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 720 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 13, 2003.

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 you are in contact with. A written report presenting the journal entries and a summary with literature integration is the deliverable. Due date is: Monday, June 9, 2003, 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 20, 2003.

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 4, 2003. The project final report is due on: Sunday, July 27, 2003. 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:
GSCIS Stated Policies:
The Graduate School of Computer and Information Sciences (GSCIS) requires that this information be disseminated to all registered students as part of each course. The policies exist to clarify the relationship of the student to the institution.

1. Standards of Academic Integrity (For complete policy, see Code of Student Conduct and Academic Responsibility, p. 45. Also see the sections on student misconduct, p. 10, and the NSU Student Handbook.)

Each student is responsible for maintaining academic integrity and intellectual honesty in his or her academic work. It is the policy of the school that each student must:

- Submit his or her own work, not that of another person
- Not falsify data or records (including admissions materials)
- Not engage in cheating (e.g., giving or receiving help during examinations, acquiring and/or transmitting test questions prior to an examination)
- Not receive or give aid on assigned work that requires independent effort
- Properly credit the words or ideas of others according to accepted standards for professional publications.*
- Not use term paper writing services or consult such services for the purpose of obtaining assistance in the preparation of materials to be submitted in courses or for theses or dissertations
- Not commit plagiarism (Webster’s defines plagiarism as “stealing or passing off ideas or words of another as one’s own” and “the use of a created production without crediting the source.”)*

*When using the exact words of another, quotation marks must be used for short quotations (fewer than 40 words), and block quotation style must be used for longer quotations. In either case, a proper citation must also be provided. When paraphrasing (summarizing, rewriting, or rearranging) the words or ideas of another, a proper citation must be provided. The Publication Manual of the American Psychological Association, Fifth Edition, contains standards and examples on quotation methods (pages 117 and 292) and on citation methods (pp. 207–214). (Addendum by this professor: overuse in direct quotes will not be allowed in papers for this course. Direct quotes should be used only sparingly, if only necessary. It is better to paraphrase and properly cite the work instead.)

Extreme caution must be exercised by students involved in collaborative work to avoid violation of this policy.


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.

3. Communication by Email

Students must use their NSU email accounts when sending email to faculty and staff and must clearly identify their names and other appropriate information, e.g., course or program. When communicating with students via email, faculty and staff members will send mail only to NSU email accounts using NSU-recognized usernames. Students who forward their NSU-generated email to other email accounts do so at their own risk. SCIS uses various course management tools that use private internal email systems. Students enrolled in courses using these tools should check both the private internal email system and NSU’s regular email system. NSU offers students Web-based email access. Students are encouraged to check their NSU email account daily.
4. The Temporary Grade of Incomplete (I)

GSCIS Stated Policy: The temporary grade of Incomplete (I) will be granted only in cases of extreme hardship. Students do not have a right to an incomplete, which may be granted only when there is evidence of just cause. A student desiring an incomplete must submit a written appeal to the course professor at least two weeks prior to the end of the term. In the appeal, the student must: (1) provide a rationale; (2) demonstrate that he/she has been making a sincere effort to complete the assignments during the term; and (3) explain how all the possibilities to complete the assignments on time have been exhausted. Should the course professor agree, an incomplete contract will be prepared by the student and signed by both student and professor. The incomplete contract must contain a description of the work to be completed and a timetable. The completion period should be the shortest possible. In no case may the completion date extend beyond 30 days from the last day of the term for master’s courses or beyond 60 days from the last day of the term for doctoral courses. The incomplete contract will accompany the submission of the professor’s final grade roster to the program office. The program office will monitor each incomplete contract. If a change-of-grade form is not submitted by the scheduled completion date, the grade will be changed automatically from I to F. No student may graduate with an I on his or her record. The grade of I does not apply to master’s thesis or doctoral dissertation registrations.

Addendum by the professor: Incompletes will NOT be granted for DCTE 720 or DCTE 820.

5. Grade Policy Regarding Withdrawals

Course withdrawal requests must be submitted to the student’s program office in writing (via postal mail or email) by the student. Requests for withdrawal must be received by the program office at least three weeks prior to the last day of the term. Program offices will publish specific withdrawal deadline dates for each term (see Academic Calendar on page ii of the catalog). Withdrawals sent by email must be sent from the student’s assigned NSU email account. Requests for withdrawal received after 11:59 p.m. est on the withdrawal deadline date will not be accepted. Failure to attend classes or participate in course activities will not automatically drop or withdraw a student from the class or the university. Students who have not withdrawn by the withdrawal deadline will receive letter grades that reflect their performance in the course(s). When a withdrawal request is approved, the transcript will show a grade of W (Withdrawn) for the course. Students with a history of withdrawals risk dismissal. Depending on the date of withdrawal, the student may be eligible for a partial refund. For a complete list of withdrawal deadline dates, please see the academic calendars located at: http://www.scis.nova.edu/NSS/pdf_documents/AcadCal.pdf

6. 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. (7) There will be no incompletes given for DCTE 720 or DCTE 820.

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

**Bibliography and Suggested Texts:**

* Recommended texts on usability evaluation and testing

Note to the student: It is highly suggested that you investigate these sources as reference materials for your assignment/project work.

In addition, it is highly suggested that you visit the ACM SIGCHI Web site, publications page, for other available journals and conference proceedings. Some journals and proceedings are available full-text online. Check it out: www.acm.org/sigchi/publications/


