Course Syllabus

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

2004 Spring Term, March 5, 2004 – August 3, 2004, Cluster Format

Professor: Laurie P. Dringus, Ph.D., Professor
Graduate School of Computer and Information Sciences
Nova Southeastern University
Carl DeSantis Building, 4th floor
3100 College Avenue
Ft. Lauderdale, FL 33314-7796
email: laurie@nsu.nova.edu
Office location, fourth floor, room 4073
Office: (954) 262-2073, Fax (954) 262-3915

Class Location and Format: Cluster (March 5-7, 2004; June 4-6, 2004) 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, 2003 or 2002. The most recent proceedings should be available through the ACM store ([http://www.acm.org](http://www.acm.org)). (Most likely ACM is the only source to purchase the proceedings as the NSU book store will not supply this. However, 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 2003 Conference Proceedings
ACM Press, 2003
ISBN: 1-58113-630-7

CHI 2002 Conference Proceedings
ACM Press, 2002

AND

**Human-Computer Interaction Selected Articles from ACM** – the list of recommended reading of articles is contained the Course Guide.
**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 interface design practices and methods can be integrated with user-centered principles and methods now being employed.
3. Consider the human-computer interaction requirements of educational technology.
4. Identify current trends in HCI research.
5. Understand the difficulties and pitfalls of translating theory and principles derived from research findings, into practical advice on user-centered design.
6. Apply metaphorical reasoning and conceptual models to user interface design.
7. Explore strategies for improving web site usability.
8. Explore 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 and hardware interfaces.
11. Synthesize the critical and current literature pertaining to the field and study of HCI.
12. Write scholarly article reviews and quality papers related to HCI.
13. In online discussions, highlight progressively higher level ideas.

Upon completion of the 820 course, the student will:
1. Delve deeply into a specific area of HCI research and design and either 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
- Accessibility of User Interfaces
- Task analysis
- Usability engineering and 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 or faxed 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. Cluster activities may include, but will not necessarily be limited to professor presentations, class/group discussions, student volunteer informal presentations of journal observation entries (arranged prior to the second cluster meeting), all depending on time and resources available. Students are required to attend all cluster meetings.

Online Course Activities: Students will contribute to Student Forums, an asynchronous Web-based conferencing forum, throughout the term. Steady contributions throughout the term 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 and full attendance at cluster, 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 18, 2004.

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 7, 2004, 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 18, 2004.

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 three deliverables, the idea paper, proposal and final report. The project idea paper is due on: Sunday, April 4, 2004. The project proposal is due on: Sunday, May 2, 2004. The project final report is due on: Sunday, July 25, 2004. As with the core course
requirements, specific instructions for completing the project are contained in the addendum
course guide. (Project requirements can also be found on the course website under
“project.pdf”.)

**Grading Scale and Criteria:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>195-200 points</td>
</tr>
<tr>
<td>A-</td>
<td>189-194 points</td>
</tr>
<tr>
<td>B+</td>
<td>183-188 points</td>
</tr>
<tr>
<td>B</td>
<td>177-182 points</td>
</tr>
<tr>
<td>B-</td>
<td>171-176 points</td>
</tr>
<tr>
<td>C+</td>
<td>165-170 points</td>
</tr>
<tr>
<td>C</td>
<td>159-164 points</td>
</tr>
<tr>
<td>F</td>
<td>0-158 points</td>
</tr>
</tbody>
</table>

Grading Criteria For the 720 Core Course:

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

-------------------

200 points total

Grading Criteria For the 820 (Project Course)

- For idea paper: 25 points (usually indicated as a “Pass”, “No Pass,” or “Rewrite”)
- For proposal: 50 points (usually indicated as a “Pass,” “No Pass,” or “Rewrite”)
- For final report: 125 points

-------------------

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 the university-wide policy on academic standards, see
the section Code of Student Conduct and Academic Responsibility in the *NSU Student
Handbook*. Also see the section Student Misconduct in the SCIS catalog.

- 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 admission materials)
• Not engage in cheating (e.g., giving or receiving help during examinations; acquiring and/or transmitting test questions prior to an examination; and using unauthorized materials, such as notes, during 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 (see Crediting the Words or Ideas of Others)

• 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 (Merriam-Webster’s Collegiate Dictionary (1996) 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.”) (see Crediting the Words or Ideas of Others below)

Crediting the Words or Ideas of Others

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. The Publication Manual of the American Psychological Association, Fifth Edition, (2001, pp. 117 and 292) contains standards and examples on quotation methods.

When paraphrasing (summarizing, or rewriting) the words or ideas of another, a proper citation must be provided. (Publication Manual of the American Psychological Association, Fifth Edition (2001) contains standards and examples on citation methods (pp. 207–214) and reference lists (pp. 215–281)). The New Shorter Oxford English Dictionary (1993) defines paraphrase as “An expression in other words, especially fuller and clearer, of the sense of a written or spoken passage or text…Express the meaning (of a word, phrase, passage, or work) in other words, usually with the object of clarification…”. Changing word order, deleting words, or substituting synonyms is not acceptable paraphrasing—it is plagiarism, even when properly cited. Rather than make changes of this nature, the source should be quoted as written.

Addendum by this professor: Additional requirement for this course -- overuse of direct quotes will not be acceptable in papers for this course. Direct quotes should be used sparingly, if only necessary. Points will be reduced in papers where excessive direct quoting is used. It is better instead to paraphrase and properly cite the work.
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. Students who are unable to write correctly and clearly are urged to contact the program office for sources of remedial help.

3. Form and Style Requirements for Student Work

For an individual course, the course professor will specify form and style requirements in the course syllabus. There are several books that provide general guidelines for form, style, and general writing principles in the preparation of papers, assignments, and reports. *On Writing Well* (Zinsser, 2001) is an excellent guide to clear, logical, and organized writing. *Bugs in Writing* (Dupré, 1998) contains valuable guidance on professional writing and is oriented to the computer and information sciences. The *Publication Manual of the American Psychological Association, Fifth Edition* (2001) addresses editorial style, grammar, and organization, and its use is often required by course professors. Master’s students may find the school’s *Dissertation Guide* (2003) helpful in the preparation of theses. Students must comply with the university’s *Policy on the Use of Material in Web Pages* (see *NSU Student Handbook*).

4. 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.

5. The Temporary Grade of Incomplete (I)

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.

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

6. Grade Policy Regarding Withdrawals

Course withdrawal requests must be submitted to the program office in writing 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. 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 class 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. 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 published in the catalog and program brochures or at:

http://www.scis.nova.edu/NSS/pdf_documents/AcadCal.pdf

7. Acceptable Use of Computing Resources

Students must comply with the university’s Policy on Acceptable Use of Computing Resources (see NSU Student Handbook).

8. Academic Progress, Grade Requirements, and Academic Standing

Students must be familiar with the school’s policy which is contained in the catalog.

9. Other Policies and Procedures

Students must comply with policies published in the school’s catalog and in the NSU Student Handbook that pertain to them.

10. 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. (8) No work from another course may be used in DCTE 720 or DCTE 820. (9) Work from DCTE 720 cannot be duplicated or expanded on in DCTE 820.

Prepared by Laurie P. Dringus, Ph.D. and Maxine S. Cohen, 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/


