

Nova Southeastern University
Graduate School of Computer and Information Sciences

Course Syllabus

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

2008 Spring Term, March 7, 2008 – August 6, 2008, Cluster Format

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Class Location and Format: Cluster (March 7-9, 2008; June 6-8, 2008) and online

Course Web Site: Most course activity is managed through WebCT, except for email exchange. Additional resources are available from the professor's HCI website at:
<http://scis.nova.edu/nova/hci/top.html>.

Course Descriptions:

DCTE 720 Human-Computer Interaction (4 credits)

The course focuses on current and future research in HCI pertaining to computing technology in education and learning environments. Techniques facilitating effective human-computer interaction are presented. Design 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, evaluating, and maintaining interactive systems that optimize user productivity are reviewed.

DCTE 820 Research Project in Human-Computer Interaction (4 credits)

Students pursue research on a current topic in HCI related to computing technology in education.

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:

Sharp, H., Rogers, Y., & Preece, J. H. (2007). *Interaction Design. Beyond Human-Computer Interaction*. Second Edition. Somerset, NJ: John Wiley & Sons.

OR

Shneiderman, B. & Plaisant, C. (2004). Designing the User Interface. Strategies for Effective Human-Computer Interaction. Addison-Wesley, 4th Edition. ISBN 0-321-19786-0.

AND

Conference Proceedings

Access to one of the latest ACM SIGCHI conference proceedings, 2007 or 2006. The most recent proceedings should be available through the ACM store (<http://www.acm.org>). Use order number 60843. (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 2007 Conference Proceedings
ACM Press, 2007
ISBN: 978-1-59593-593-9

CHI 2006 Conference Proceedings
ACM Press, 2006
ISBN: 1-59593-178-3

AND

Human-Computer Interaction Selected Articles from ACM – list of various recommended articles is contained the Course Guide.

Learning Objectives:

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. Describe the major aspects of usability engineering.
9. Apply usability and design principles to the evaluation of current interfaces.
10. Apply suitable methods for collecting users' requirements and analyzing users' tasks.
11. Perform usability analyses and evaluate product design.
12. Synthesize the HCI research literature effectively.
13. Write scholarly article reviews and quality papers related to HCI.
14. 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 and write a paper on an 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

HCI and the World Wide Web

HCI and security

Accessibility of User Interfaces

Usability engineering and evaluation

HCI and social computing

Research in HCI

Instruction Methods and Tools:

Students will use WebCT to submit DCTE 720 and DCTE 820 coursework. WebCT will be used for our online asynchronous discussions, course announcements, and for assignment submissions. Please note: WebCT email WILL NOT be used for course correspondence. Students are required to use their SCIS email accounts to communicate with the professor. Also, email attachments of assignments or faxed assignments will not be accepted, unless pre-approved by the professor.

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 mini paper overviews (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 discussion forum in WebCT, 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/expectations on contributing to the online Forums.

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 HCI research. 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, 2008.**

Assignment #2: Mini paper #1. A 15-page paper on a topic of your choice related to HCI. Substantial literature integration/synthesis is required. A paper of **publishable** quality is expected. Due date to submit through WebCT is: **Monday, June 9, 2008. (This is the day after the second cluster meeting ends.)** Students should be prepared to discuss paper topics in class.

Assignment #3: Conduct and report a usability evaluation. Due date is: **Sunday, July 20, 2008.**

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, if approved, will likely result in point reduction. **All 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 6, 2008. The project proposal is due on: Sunday, May 4, 2008. The project final report is due on: Sunday, July 27, 2008.** As with the core course

requirements, specific instructions for completing the project are contained in the addendum course guide. (Note: Submit DCTE 820 project submissions through WebCT.)

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	25 points
Assignment #2	70 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:

School and University Policies and Procedures:

Students must comply with the policies published in the school’s *Graduate Catalog* and the *NSU Student Handbook*, some of which are included or referenced below. The catalog is at http://www.scis.nova.edu/NSS/pdf_documents/Catalog.pdf. The handbook is at <http://www.nova.edu/cwis/studentaffairs/forms/ustudenthandbook.pdf>.

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 GSCIS 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 and academic work)

- 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 or consult paper writing services, software coding services, or similar services for the purpose of obtaining assistance in the preparation of materials to be submitted for course assignments 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, usually 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.

Original Work

Assignments, exams, projects, papers, theses, dissertations, etc., must be the original work of the student. Original work may include the thoughts and words of another author but such thoughts or words must be identified utilizing quotation marks or indentation and must properly identify the source (see the previous section *Crediting the Words or Ideas of Others*). At all times, students are expected to comply with the school's accepted citation practice and policy.

Work is not original when it has been submitted previously by the author or by anyone else for academic credit. Work is not original when it has been copied or partially copied from any other source, including another student, unless such copying is acknowledged by the person submitting the work for credit at the time the work is being submitted, or unless copying, sharing, or joint authorship is an express part of the assignment. Exams and tests are original work when no unauthorized aid is given, received, or used before or during the course of the examination, reexamination, and/or remediation.

2. Writing Skills

Students must demonstrate proficiency in the use of the English language. Grammatical errors, spelling errors, and writing that fails to express ideas clearly will affect their grades and the completion of their academic programs. The faculty will not provide remedial help concerning grammatical errors or other writing difficulties. It is the student's responsibility to proofread and edit his or her work which, in both form and content, should be letter-perfect. Work that is not properly edited will be rejected. It is university policy that students must submit their own work, not that of another person. Consequently, they should refrain from using outside editors to redo their work.

3. Disabilities and ADA

NSU complies with the American with Disabilities Act (ADA). The university's detailed policy on disabilities is contained in the NSU *Student Handbook*. Student requests for accommodation based on ADA will be considered on an individual basis. Students with disabilities should discuss their needs with their academic advisors before the commencement of classes if possible.

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. GSCIS 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 by the calendar midpoint of the course (see dates in the academic calendar in the catalog and program brochures or at: http://www.scis.nova.edu/NSS/pdf_documents/AcadCal.pdf). 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 four withdrawals will be dismissed from the program.* Depending on the date of withdrawal, the student may be eligible for a partial refund (see the appropriate catalog section Refund Policy Regarding Withdrawals).

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 policies which are contained in its catalog.

9. Student Research Involving Human Subjects

Students must be familiar with the university's policy (see paragraph in catalog).

10. Responsibility for Payment of Tuition and Fees

Once registered, students are personally responsible for the payment of their tuition and fees. Returned checks, cancelled credit cards, employer or agency refusal to pay, ineligibility for financial aid, and other reasons for non-payment may result in a direct bill to the student, and/or referral to a collection agency.

Payment and refund policies are based on the view that a student registering for a class is reserving a place in that class and that tuition and fees cover the opportunity to secure that place in the class. Since no other person can purchase that place, the student is responsible for the tuition and fees associated with it. Simply not attending does not constitute a reason for non-payment.

11. 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) Follow the NSU IRB policy on Student Research. (4) Extensive literature research outside provided sources given in class is required for all work in this course. (5) Follow carefully the course guide and tips for providing quality submissions in this course. (6) Adhere to all deadlines – late arrival will likely result in point reduction. (7) 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. (8) There will be no incompletes given for DCTE 720 or DCTE 820. (9) No work from another course may be used in DCTE 720 or DCTE 820. (10) Work from DCTE 720 cannot be duplicated or expanded on in DCTE 820.

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

Baecker, R.M., Grudin, J., Buxton, W., & Greenberg, S. (Eds.)(1995). *Readings in human-computer interaction: toward the year 2000*. San Francisco, CA: Morgan Kaufmann Publishers. ISBN: 1-55860-246-1.

Bailey, R.W. (1996). *Human performance engineering. Designing high quality professional user interfaces for computer products, applications and systems*. Third Edition. Upper Saddle River, NJ: Prentice Hall.

*Barnum, C. (2002). *Usability testing and research*. New York: Longman.

Bergman, E. (Ed.)(2000). *Information appliances and beyond: interaction design for consumer products*. San Francisco, CA: Morgan Kaufmann.

Beyer, H., & Holtzblatt, K. (1997). *Contextual design: A customer-centered approach to systems design*. San Francisco, CA: Morgan Kaufmann Publishers.

Bias, R.G., & Mayhew, D. (2005). *Cost-justifying usability*. Second Edition. San Francisco, CA: Morgan Kaufmann.

Brinck, T., Gergle, D., & Wood, S.D. (2002). *Designing web sites that work: Usability for the Web*. San Francisco, CA: Morgan Kaufmann Publishers.

Buxton, B. (2007). *Sketching user experiences: Getting the design right and the right design*. San Francisco, CA: Morgan Kaufmann.

Card, S. K., Moran, T., & Newell, A. (1983). *The psychology of human-computer interaction*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Card, S.K., Mackinlay, J., & Shneiderman, B. (1999). *Readings in information visualization: using vision to think*. San Francisco, CA: Morgan Kaufmann Publishers.

- Carroll, J.M. (1995). *Scenario-based design: envisioning work and technology in system development*. New York: John Wiley & Sons.
- Carroll, J.M. (Ed.)(2002). *Human-computer interaction in the new millennium*. New York: ACM Press and Addison Wesley.
- Carroll, J.M. (Ed.)(2003). *HCI models, theories, and frameworks: Toward a multidisciplinary science*. San Francisco, CA: Morgan Kaufmann Publishers.
- Carroll, J. (2002). *Human computer interaction in the new millennium*. Addison-Wesley.
- Cato, J. (2001). *User-centered web design*. London: Addison-Wesley.
- Cooper, A., Reimann, R., & Cronin, D. (2007). *About face 3.0: the essentials of user interface design*. New York: John Wiley Publishers.
- Cooper, A. (1999). *The inmates are running the asylum*. Indiana: SAMS Publishing.
- Cranor, L. & Garfinkel, S. (2005). *Security and usability: Designing secure systems that people can use*. O'Reilly Media.
- del Galdo, E.M., & Nielsen, J. (Eds.)(1996). *International user interfaces*. New York: John Wiley Publishers.
- Diaper, D., & Stanton, N. (Eds.) (2004). *The handbook of task analysis for human-computer interaction*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Dix, A., Finlay, J., Abowd, G., & Beale, R. (1998). *Human-computer interaction*. Prentice Hall, Second Edition, Prentice Hall Europe.
- Druin, A. (Ed.) (1998). *The design of children's technology*. San Francisco, CA: Morgan Kaufmann Publishers.
- *Dumas, J.S., & Redish, J.C. (1999). *A practical guide to usability testing*. Revised Edition. Portland, OR: Intellect Books.
- Fogg, B. J. (2003). *Persuasive technology: Using computers to change what we think and do*. San Francisco, CA: Morgan Kaufmann Publishers.
- *Galitz, W.O. (2003). *The essential guide to user interface design. An introduction to GUI design principles and techniques*. 2nd Edition. New York: John Wiley Publishers.
- Garrett, J.J. (2003). *The elements of user experience: User-centered design for the web*. Indianapolis, IN: New Riders.

- Hackos, J.T., & Redish, J.C. (1998). *User and task analysis for interface design*. New York: John Wiley Publishers.
- Heim, S. (2008). *The resonant interface*. Boston, MA: Pearson Education.
- Hix, D., & Hartson, H.R. (1993). *Developing user interfaces: ensuring usability through product and process*. New York: John Wiley Publishers.
- Horton, W. (1994). *Designing and writing online documentation*. Second Edition. New York: John Wiley Publishers.
- Horton, W. (1994). *The icon book*. New York: John Wiley Publishers.
- Isaacs, E. & Walendowski, A. (2002). *Designing from both sides of the screen*. Indianapolis, IN: New Riders.
- Isensee, S., Rudd, J., & Heck, M. (1996). *The art of rapid prototyping*. Boston, MA: International Thomson Computer Press.
- Jacko, J. A., & Sears, A. (Eds.) (2002). *The human-computer interaction handbook. Fundamentals, evolving technologies, and emerging applications*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Jadav, A.D. (2003). *Designing usable web interfaces*. Upper Saddle River, NJ: Pearson Education.
- Johnson, J. (2007). *GUI bloopers 2.0: Common user interface design don'ts and do's*. San Francisco, CA: Morgan Kaufmann.
- Johnson, J. (2003). *Web bloopers*. San Francisco, CA: Morgan Kaufman Publishers.
- Jones, M. & Marsden, G. (2006). *Mobile interaction design*. New York: John Wiley Publishers.
- *Jordan, P.W. (1998). *An introduction to usability*. Levittown, PA: Taylor & Francis.
- *Kirakowski, J. (2000). *Usability evaluation by questionnaire*. London: Taylor and Francis.
- Kirwan, B., & Ainsworth, L.K. (Eds.) (1992). *A guide to task analysis*. Bristol, PA: Taylor and Francis Ltd.
- Krug, S. (2006, 2nd edition). *Don't make me think: common sense approach to web usability*. Indianapolis, IN: New Riders Publishing.

- *Kuniavsky, M. (2003). *Observing the user experience: A practitioner's guide for user research*. San Francisco, CA: Morgan Kaufmann Publishers.
- Lazar, J. (2006). *Web usability: A user-centered approach*. Boston, MA: Pearson Education.
- *Leventhal, L. & Barnes, J. (2008). *Usability engineering: process, products, and examples*. Upper Saddle, NJ: Pearson Education.
- Lundmark, T. (2002). *Quirky QWERTY: the story of the keyboard @ your fingertips*. Sydney, Australia. University of New South Wales Press.
- Mandel, T. (1997). *The elements of user interface design*. New York: John Wiley Publishers.
- Maybury, M. T. & Wahlster, W. (Eds.) (1998). *Readings in intelligent user interfaces*. San Francisco, CA: Morgan Kaufmann Publishers.
- *Mayhew, D.J. (1999). *The usability engineering lifecycle: a practitioner's handbook for user interface design*. San Francisco, CA: Morgan Kaufman Publishers.
- McCracken, D.D., & Wolfe, J. (2004). *User-centered website development: A human-computer interaction approach*. Upper Saddle River, NJ: Pearson Education/Prentice Hall.
- Moggridge, B. (2006). *Designing interactions*. Cambridge, MA: MIT Press.
- Negroponte, N. (1995). *Being digital*. New York: Alfred A. Knopf.
- *Nielsen, J. (1993). *Usability engineering*. San Diego, CA: Academic Press.
- Nielsen, J. (2000). *Designing web usability*. Indianapolis, IN: New Riders.
- *Nielsen, J., & Mack, R. (1994). *Usability inspection methods*. New York: John Wiley Publishers.
- Norman, D.A. (1988). *The design of everyday things*. New York: Doubleday.
- Norman, D.A. (1998). *The invisible computer*. Cambridge, MA: MIT Press.
- Norman, D.A. (2004). *Emotional design*. New York, NY: Basic Books.
- Norman, D.A. (2007). *The design of future things*. New York, NY: Basic Books.
- Preece, J. (2000). *Online communities: Designing usability, supporting sociability*. New York: John Wiley & Sons.

- Preece, J., Rogers, Y., & Sharp, H. (2002). *Interaction design: Beyond human-computer interaction*. New York: John Wiley & Sons. (See Sharp, Rogers, & Preece, 2007, 2nd edition.)
- Pruitt, J. & Adlin, T. (2006). *The persona lifecycle: Keeping people in mind throughout product design*. San Francisco, CA: Morgan Kaufmann Publishers.
- Reeves, B., & Nass, C. (1996). *The media equation: How people treat computers, television, and new media like real people and places*. New York: Cambridge University Press.
- *Rosson, M.B., & Carroll, J. M. (2002). *Usability engineering. Scenario-based development of human-computer interaction*. San Francisco, CA: Morgan Kaufmann Publishers.
- *Rubin, J. (1994). *Handbook of usability testing*. New York: Wiley.
- Saffer, D. (2007). *Designing for interaction. Creating smart applications and clever devices*. Berkeley, CA: New Riders.
- Schaffer, E. (2004). *Institutionalization of usability. A step-by-step guide*. New York, NY: Addison-Wesley.
- Schuler, D., & Namioka, A. (Eds.) (1993). *Participatory design. Principles and practices*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- *Sharp, H., Rogers, Y., & Preece, J. H. (2007). *Interaction Design. Beyond Human-Computer Interaction*. Second Edition. Somerset, NJ: John Wiley & Sons.
- Shneiderman, B., and Plaisant, C. (2005). *Designing the user interface. Strategies for effective human-computer interaction*. Fourth Edition. Reading, MA: Addison-Wesley.
- Snyder, C. (2003). *Paper prototyping for the user interface*. San Francisco, CA: Morgan Kaufmann Publishers.
- Sommerville, I., & Sawyer, P. (1997). *Requirements engineering*. New York: John Wiley Publishers.
- Stone, D., Jarrett, C., Woodroffe, M., & Minocha, S. (2005). *User interface design and evaluation*. San Francisco, CA: Morgan Kaufmann Publishers.
- Tavani, H.T. (2007). *Ethics & technology: Ethical issues in an age of information and communication technology*. New York: John Wiley Publishers.
- Te'eni, D., Carey, J., & Zhang, P. (2007). *Human-computer interaction. Developing effective organizational information systems*. New York: John Wiley Publishers.

- Torres, R.J. (2002). *Practitioner's handbook for user interface design and development*. Upper Saddle, NJ: Prentice Hall PTR.
- Trenner, L., & Bawa, J. (1998). *The politics of usability*. London: Springer.
- Van Duyne, D.K., Landay, J.A., & Hong, J.I. (2003). *The design of sites: Patterns, principles and processes for crafting a customer-centered web experience*. Boston: Addison-Wesley.
- Ware, C. (1999). *Information visualization: optimizing design for human perception*. San Francisco, CA: Morgan Kaufmann Publishers.
- Wilkund, M.E. (1994). *Usability in practice: how companies develop user-friendly products*. Boston, MA: AP Professional.
- Williams, R. (2003). *The non designer's design book*. Second Edition. Berkeley, CA: PeachPit Press.
- Winograd, T. (1996). *Bringing design to software*. New York: ACM Press.