CSC540 - Fall 2015 - Course Syllabus

COURSE TITLE: User Interface Development

CREDITS: 3

PREREQUISITES: For undergraduates: Grade of C or better in CSC340. For graduate students: satisfaction of all provisional admission requirements for CSC130/230/330. All students are expected to have basic object-oriented programming language skills in Java and to learn on their own any new computer skills needed to implement the course project in Java.

INSTRUCTOR INFORMATION: Dr. Nancy Green; office: 159 Petty Hall; phone: (336) 256-1133; office hours: posted on door by office and by appointment; email: nlgreen@uncg.edu.


STUDENT LEARNING OUTCOMES: Upon completion of the course students should be able to
1. Demonstrate knowledge of foundations and terminology of the field of Human-Computer Interaction
2. Demonstrate knowledge of methods for user-centered design of human computer interfaces
3. Demonstrate knowledge of methods for evaluating human-computer interfaces
4. Apply knowledge outlined above in 1-3 to the requirements analysis, design, implementation, and evaluation of a graphical user interface in a course project; and present project deliverables in written and oral form
5. Apply knowledge outlined above in 1-3 to analyze the design and evaluate the usability of real-world human-computer interfaces; and communicate the analysis and evaluation in written and oral form.
6. (graduate students only): Summarize and evaluate evidence-based HCI literature in class presentations.

GRADING: Students are expected to attend class, to participate in class activities, and to read assigned readings. Students will be assigned a course project involving programming, written deliverables, usability testing, and in-class presentations. The course grade will be based on
- Test 1 (20%)
- Test 2 (20%)
- Project (several parts, totaling 50%)
- Undergraduate students: In-class or take-home exercises/Participation 10%
- Graduate students: Report 10%

POLICIES:
- Attendance is expected and will be checked during the semester. You may be dropped from the course for missing more than 6 classes for any reason: illness, job issues, excused absences (UNC-G has a policy of excusing 2 absences for religious observances), etc. If you are absent, whether it is excused or not, you still need to follow the policies on Late Work and Missed Exams below.
- Textbook: The required textbook is indispensable to this course. Therefore, you are expected to show ownership of it by the 4th class meeting; otherwise you may be dropped from the course. (In case of financial hardship, see the instructor immediately to discuss getting help for purchasing a copy.)
- Late work will not normally be given credit. You should make arrangements with the instructor to turn work in early if you know you will be absent on a due date.
• **Missed exams** may be taken only if the student's absence has been excused by the instructor and if the exam is made up at the make-up exam time announced by the instructor.

• **Academic Integrity:** All work (including assignments and exams) is subject to the UNCG Academic Integrity Policy. When you submit your work, you are implicitly agreeing to this policy. Academic dishonesty includes submitting software that you did not write as your own work.

• **Disabilities:** If you have disability-related requirements, please inform us as soon as possible so that we can make any necessary accommodation.

• **Copies of student work** (with student’s identifying information removed) may be kept and used for curriculum assessment and in accreditation studies.

• **Emergency university closure:** Closure of university facilities in response to emergencies (flu outbreak, weather, etc.) does not mean that this class is halted, and students should check Canvas for announcements about how the class will proceed in the event of such an emergency.

• **Disruptive Behavior:** If you engage in non-course-related or disruptive activities (such as excessive non-course-related conversation, reading/sending email or text messages, doing work for another class) you may be asked to leave the room and counted as absent; persistent behavior of this type may result in your being dropped from the course (see the UNCG Disruptive Behavior Policy).

• **Commercial services:** Selling class notes and other class materials for commercial gain is a violation of the University’s Copyright Policy and of the Student Code of Conduct. Sharing notes for studying purposes, or borrowing notes to make up for absences, without commercial gain, are not violations.


**SUPPLEMENTARY BOOKS** (helpful but not required):


• F. Culwin, *A Java GUI Programmer’s Primer*. Prentice Hall. 1998. (ch. 1 on Canvas)


**TOPICS** (related chapter in textbook, if any):

Introduction (ch. 1, 2.1-2.5)

Cognition (ch. 3)

Physical Design Guidelines for GUIs (not in textbook)

GUI Implementation and Usability Engineering (not in textbook)

Survey of UI Technology (ch. 4-6)

Special Topics in UI (not in textbook): information visualization, mobile HCI, automobile UIs, etc.

Data Gathering for Requirements and Evaluation (ch. 7)

Design Process (ch. 9)

Requirements Analysis (ch. 10)

Design Methods (ch. 11)

Evaluation Overview (ch. 12-13)

Usability Testing and Research (ch. 14)

Analytical Evaluation (ch. 15)