RIT - GCCIS COURSE SYLLABUS
HCIN.620.01 INFORMATION AND INTERACTION DESIGN

FALL 2021 (TERM 2211) DRAFT OF SEPTEMBER 15, 2021

DETAILS

Important note: The information presented in this syllabus is subject to expansion, contraction, change, or stasis during the semester. In case of conflict between versions, the copy on MyCourses takes precedence.

Course Number. 15114

Prerequisite. Experience with a prototyping tool, such as Sketch, Figma, or Adobe XD

Corequisite. HCIN-610

Time. Online

Place. Online

Dates. 23 AUG 2021–6 DEC 2021

Final Exam. TBA

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Office Hours. W,F 1000–1200, or by appointment https://rit.zoom.us/j/5303555034

DESCRIPTION

Designing meaningful relationships among people and the products they use is both an art and a science. This course will focus on the unique design practice of (1) representing and organizing information in such a way as to facilitate perception and understanding (information architecture) and (2)

specifying the appropriate mechanisms for accessing and manipulating task information (interaction design). This course will also explore the various design patterns (design solutions to particular problems) that are appropriate for the HCI professional. Students will need prior knowledge of an interface prototyping tool.

OBJECTIVES - SKILLS

- Identify complementary skills and congruent domains among potential project group partners.
- Conduct iterative design, including design, prototyping, and evaluation.
- Conduct a contextual inquiry.
- Construct personas suggested by a contextual inquiry.
- Construct a low fidelity prototype using pencil and paper.
- Construct a high fidelity prototype using tools of your own choosing.
- Evaluate a high fidelity prototype using heuristic evaluation or methods of your own choosing.
- Sketch designs quickly and with facility.
- Solve generic design problems quickly in an ad hoc group, mastering both the divergent and convergent activities required.
- Tell the story of a design problem and solution through a series of sketches.
- Contribute to a project group over the course of a semester and overcome project group problems.
- Create a project group website that communicates the substance of your semester-long project.
- Work with a client whose constraints are not under your control.

OBJECTIVES - CONCEPTS

- Understand the role of constraints in design.
- Understand affordances.
- Understand the history of and basic definitions common in interaction design.
- Understand theories in human computer interaction such as Fitts's Law and Hick's Law and the characteristics of theories.
- Understand interaction paradigms.
- Understand four common interaction styles and the characteristics favoring their use.
- Understand two different ways to elicit and interpret verbal information from users of a system, protocol analysis and verbal analysis.
- Understand the role of collaboration among users in interaction design.
- Understand several ways to measure quality of service.
- Understand the role of emotion in interaction design.
- Understand relevant characteristics of a range of interaction devices.
- Understand software documentation and the phenomena taking its place.

MATERIALS

Textbook. The study guide (on MyCourses) is the only textbook for the course. Readings will be required that are available online or in MyCourses. Additional readings will be recommended but not required.

Notebook. For the *onsite* version of the course, you should bring a paper notebook to class every day and be prepared to upload pictures from it frequently. The notebook should be the size of the Moleskine Cahier notebook, 5 × 8.25 inches.

It is available from the campus Barnes and Noble in packs of three for about 13USD.

You should only write or draw in the notebook and not staple or paste scans or photos into it. All the work in the notebook should be in pen or pencil, preferably pencil.

For the *online* version of the course, the requirement is the same except that you will need to photograph or scan your notebook pages and upload them to an online location. It is still helpful to the instructor and your classmates for you to adhere to the size guidelines. This makes it easier to review each other's pages without too much zooming in and out. This gives comparable page layouts because of the physical characteristics of a 5×8 page size.

Phone or tablet with camera. For the *onsite* version of the course, you should bring a phone or tablet with a camera to class and be prepared to photograph your work to share it with the class.

For the *online* version of the course, you will still need to photograph or scan work to share, but issues like portability of equipment may not matter depending your location.

Technology. Specific software packages will not be taught in this course. Students should use judgment to select and use helpful software and should share their experiences with different software packages during discussion. Different students have different software needs. It makes sense to try a lot of different software packages to keep you open-minded but to polish your skills with a few to help you meet tight deadlines.

SCHEDULE

The estimated course schedule follows. All dates, lecture topics, and assignments are subject to reasonable change at the discretion of your instructor. Any changes will be announced

in class. Numbers refer to weeks of the semester.

1. Intro, Team options
2. Background radiation
3. Audience
4. Contextual inquiry
5. Personas
6. Prototyping
7. Portfolio Planning
8. Personal information
9. Information
10. Information design patterns
11. Finding information
12. Navigating information
13. Visualization
14. Visual design theories
15. Bertin's theory
16. Summary

GRADING

I intend to grade all assignments within two weeks except when circumstances interfere. The grading scale used along with the grade components follow. The list numbering refers to week numbers of the semester.

- A >= 90.0%
- B >= 80.0% & < 90%
- C >= 70.0% & < 80.0%
- D >= 60.0% & < 70.0%
- F < 60.0%

1. Self-assessment
2. Exercise 1, 05 points (drawing a face)

3. Milestone 1, 05 points (proj focus)
4. Exercise 2, 05 points (picking up a key)
5. No graded work due
6. Milestone 2, 10 points (contextual inquiry)
7. Exercise 3, 05 points (widget redesign)
8. Milestone 3, 05 points (personas)
9. Exercise 4, 05 points (record interaction)
10. Milestone 4, 05 points (lo-fi prototype)
11. Exercise 5, 05 points (ambient notification)
12. Exercise 6, 05 points (corporate directory)
13. Exercise 7, 05 points (captions)
14. Milestone 5 10 points (hi-fi prototype)
15. Exercise 8, 05 points (elevator)
16. Peer eval, project grades
17. Final exam, 15 points

Adding the points from the above list shows that the course grade is composed of

- 35 points project milestones
- 15 points exam
- 40 points in-class exercises

POLICIES

Your familiarity with the following policies, dates, and and parameters will be assumed in this course.

Last day to add/drop. 30 Aug 2021

Last day to withdraw with W. 5 Nov 2021

MyCourses. All project assignments, lecture notes, and other distributable course materials will be available via My-Courses. All student project assignments will be submitted via MyCourses dropboxes. Where the assignment is a website,

the URL will be submitted to a myCourses dropbox. Every student will submit every assignment to myCourses, regardless of whether it is a group assignment. Please do not submit any Microsoft Office files in this course ever. If you must use Microsoft Office to complete your assignment, please convert it to pdf or one of the formats listed under the *Completing exercises* section of the study guide (starts around page 162).

Grade Challenges. School of Information policy states that a student has one semester to challenge any grade. After that, grades cannot be challenged.

Late Work. Any work not submitted by the final due date receives a grade of zero, unless arrangements are made previous to the initial due date.

Extra Credit. No extra credit is available in this course.

Accommodations. If you have a "Notice of Accommodation", you must provide your instructor with a copy of it within 1 week of starting this course. You must follow all the rules of the relevant office.

Academic Dishonesty. The policy on dishonesty is simple: Anyone caught cheating receives an "F" as a course grade, is removed from the section and a letter detailing the incident is placed into his or her folder. Any student accused of cheating should realize that the evidence has already been verified by other faculty members and will withstand an appeal. Additionally, please review the institute policy at https://www.rit.edu/studentlife/student-conduct/conduct-process

Acceptable Use. We are bound by the following Acceptable Computer Use policy at https://www.rit.edu/academicaffairs/policiesmanual/c082-code-conduct-computer-use

Student Responsibilities. Please review the general student responsibilities as outlined at https://www.rit.edu/academicaffairs/policiesmanual/policies/student

Policy on Reporting Incidents of Discrimination and Harassment. RIT is committed to providing a safe learning environment, free of harassment and discrimination as articulated in our university policies located on our governance website. RIT's policies *require faculty to share information* about incidents of gender based discrimination and harassment with RIT's Title IX coordinator or deputy coordinators, regardless whether the incidents are stated to them in person or shared by students as part of their coursework. RIT Governance website: https://www.rit.edu/academicaffairs/policiesmanual/policies/governance

If you have a concern related to gender-based discrimination and/or harassment and prefer to have a *confidential* discussion, assistance is available from one of RIT's confidential resources on campus:

1. The Center for Women & Gender: Campus Center Room 1760; 585-475-7464; CARES (available 24 hours/7 days a week) Call or text 585-295-3533.
2. RIT Student Health Center – August Health Center/1st floor; 585-475-2255.
3. RIT Counseling Center - August Health Center /2nd floor - 2100; 585-475-2261.
4. The Ombuds Office – Student Auxiliary Union/Room 1114; 585-475-7200 or 585-475-2876.
5. The Center for Religious Life – Schmitt Interfaith Center / Rm 1400; 585-475-2137.
6. NTID Counseling & Academic Advising Services – 2nd Floor Lyndon B. Johnson; 585-475-6468 (v), 585-286-4070 (vp).

RIT Resilience. Success in this course depends heavily on your personal health and wellbeing. Recognize that stress is an expected part of the college experience, and it often can be compounded by unexpected setbacks or life changes outside the classroom. Moreover, those with marginalized identities may be faced with additional social stressors. Your other instructors and I strongly encourage you to reframe challenges as an unavoidable pathway to success. Reflect on your role in taking care of yourself throughout the term, before the demands of exams and projects reach their peak. Please feel free to reach out to me about any difficulty you may be having that may impact your performance in this course as soon as it occurs and before it becomes unmanageable. In addition to your academic advisor, I strongly encourage you to contact the many other support services on campus that stand ready to assist you.