Instructor Information

Dr. Ben Schafer
schafer@cs.uni.edu
273-2187
ITTC 316

Office Hours

- MWF, 9:00-9:50, 11:00-11:50 AM and 1:00-1:50
- Anytime my office door is open
- By appointment

Course Information

Class Info: 3 credits

Time and Place: MWF, 10:00-10:50, ITTC 328

Texts:

- *The Design of Everyday Things (DOET), 3rd Edition* by Donald Norman. This book has a "new" edition out which is significantly different from the previous two editions. It is an excellent introduction to the human side of user interfaces. By focusing on everyday objects such as doors, kitchen appliances, and telephones, Norman is able to effectively and painlessly teach the psychology of human action.

- *Designing with the Mind in Mind (DMM), 2nd Edition* by Jeff Johnson. Another book that focuses as much on psychology as it does on computers. It, however, has a firm connection to computer interface design.

- *Task-Centered User Interface Design (TCUID)* by Clayton Lewis and John Rieman. This text-only shareware book (available at [http://hcibib.org/tcuid/](http://hcibib.org/tcuid/) and [http://hcibib.org/tcuid/tcuid.pdf](http://hcibib.org/tcuid/tcuid.pdf)) is an efficient introduction to a very useful design process. We will use this book to guide us.

Students looking for a more research-oriented text on user interface design may wish to obtain a copy of Ben Shneiderman’s *Designing the User Interface*, an excellent text covering a wide range of topics and issues related to UI design and human-computer interaction. There also are dozens of other VERY good books. Ask if you have questions.

Class Directory: [http://www.cs.uni.edu/~schafer/3120/](http://www.cs.uni.edu/~schafer/3120/) (Check here for lecture notes, announcements and supplemental class materials)
Course Specifics

Description

This class covers the theory, design, evaluation, and implementation of interactive application interfaces. Topics include: human capabilities and limitations, the interface design and engineering process, prototyping, interface evaluation, and current topics such as data visualization, and world wide web interfaces.

The class format is lecture, in-class individual and group activities, and a team “project.” Class participation is expected, and your grade will be partially based in it. Thoughtful questions are as important as answers.

All students will work with a group on an ongoing “project.” The “project” involves the design and evaluation of an interactive user interface. Students will work in groups of roughly four students. Groups will need to meet outside of class, as well as in class, to complete the project. Groups will present their projects throughout the semester.

Workload

This course will require both substantial and sustained effort. In accordance with standard university guidelines, students should expect to spend about nine hours per week on this course to meet the minimum requirements for a C-level grade. Students aspiring to higher grades will need to work harder, more efficiently, or both.

Because of the integrated group activity in the course, students whose work or personal lives would lead them to miss more than one consecutive week of class during the semester, or more than two weeks total, should not enroll in the course. Much of the material covered in this class can be learned in other venues more suitable for students who are unable to commit a semester to the material.

Working in Groups

Working in project groups may be new for some of you, and can be challenging for all. Spend time at the start of the course learning about prospective group members. Remember that you will have a better group experience if your group is diverse in talents and interest, but united in goals and compatible in work habits.

Randy Pausch at CMU developed a good set of tips for students working in groups: http://www.cs.cmu.edu/~pausch/Randy/ tipoForGroups.html. I am here to help your group resolve problems.

Course Computing

You may develop your software on any system that supports the tools you are using. It is important that you be able to demonstrate your project both periodically and at the end of the course. For these purposes, you must either arrange for your project to run on one of the lab machines, or you must bring a portable computer that runs your project.
Course Structure

Assignments/Project Deliverables

Throughout the semester you will complete a number of assignments related to the design and implementation of an interface for an interactive computer system. The project, which will be completed by groups of students, is to be completed in stages, and will be partially graded after each stage. Some deliverables will be individual assignments; most should be completed by the group. While projects will receive a single grade per group, group members may receive different grades if not all members contribute fully to the project.

You should bring all project-related documents (e.g., analysis documents, paper prototypes, etc.) to each class. Many class sessions will include project-related activities.

Quizzes and Exams

There will be five very brief quizzes during the class. Quizzes will test content from the prior week or two (including discussion content), as well as readings and project steps due by the date of the quiz. Quizzes will generally be closed-book. I will only use four of these five quizzes in assigning your final grade. I will drop your lowest quiz score. Missed quizzes count as a zero. If you are absent from a single quiz, that quiz will be dropped (as your lowest score). If you are absent for more than one quiz, and can document good cause for the absence (illness, university-sanctioned event, etc.), then the other quiz scores will be scaled up to the higher percentage. Because quizzes are unannounced, there will not be make-up quizzes.

A single final take-home examination will be held towards the end of the semester. This exam is a "show-what-you-can-do" exam that will ask you to apply the techniques from your project, individually, to a presented interface. The intent is for you to demonstrate your individual competence without needing to memorize details or study class notes.

Course Policies

In this course, you have the opportunity -- and responsibility -- to perform as a computer science professional in an environment that is as realistic as possible, given the constraints of a course. This course expects professional behavior:

- Class attendance and participation are presumed.
- You are expected to read assigned topics prior to the class session.
- Assignments are due at their assigned date and time.
- Academic integrity is presumed.

I try to accommodate student needs whenever possible, but I can do so only if I know about them. If you ever need to make alternate arrangements that will affect your participation in this course, contact me -- and your teammates! -- in advance. The safest way to make such arrangements with me is by sending e-mail regarding of your circumstances and of how you can be reached.
Grading

This will be very straight forward. Over the course of the semester you have the opportunity to earn 750 points as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Points</td>
<td></td>
</tr>
<tr>
<td>Quizzes (scaled, based on highest 3 of 4)</td>
<td>100</td>
</tr>
<tr>
<td>Exam</td>
<td>150</td>
</tr>
<tr>
<td>Individual Deliverables (5 @ 25 points each)</td>
<td>125</td>
</tr>
<tr>
<td>Group Points (subject to an individual multiplier)</td>
<td></td>
</tr>
<tr>
<td>Group Deliverables (11 @ 25 points each)</td>
<td>275</td>
</tr>
<tr>
<td>Final Project</td>
<td>100</td>
</tr>
</tbody>
</table>

Final grades will be assigned based on cut off points no “higher” than:

- 90% or above for an A,
- 80% or above for a B,
- 70% or above for a C,
- 60% or above for a D, and
- below 60% for an F.

Incompletes

Incompletes are only awarded in very rare circumstances when an unforeseeable event causes a student who has completed all coursework to date to be unable to complete a small portion of the work remaining in the course. Because of the heavy group work nature of the course, incompletes will generally not be awarded except in cases of severe medical or family emergency. Making up an incomplete grade will usually require completing a new project the following year. Any incomplete grade will require a written agreement on the work to be completed.

Scholastic Conduct

You are responsible for being familiar with the University’s Academic Ethics Policies (http://www.uni.edu/pres/policies/301.shtml).

Academic integrity is essential to a positive teaching and learning environment. All students enrolled in University courses are expected to complete coursework responsibilities with fairness and honesty. Failure to do so by seeking unfair advantage over others or misrepresenting someone else’s work as your own, can result in disciplinary action.

Any substantive contribution to your solution by another person or taken from a publication should be properly acknowledged in writing. Failure to do so is plagiarism and will necessitate disciplinary action. Cheating can result in failing the course and/or more severe disciplinary actions.

In this class it will still be judged on the course criteria.
Class Distractions

We live in a technological society, and many of you now carry a variety of electronic distractions with you. These include cell phones, laptops, etc. While you are welcome to own and use these tools, the past few semesters have made me realize that I need to include a brief note on the etiquette of using these items.

It may be appropriate to use your laptop during course. You may do this to take notes about the discussion, or remind yourself of due items/due dates. However, their use should be limited to course related purposes. If they become a distraction for you or other members of the course (including me) then you will be asked to no longer bring them to class. The use of cell phones during class is basically never appropriate (a few rare situations exist, and I should be notified in advance of these situations). Please turn off your cell phone prior to the start of class.

The inappropriate use of any of these devices will cause your participation grade to be reduced one point for the first occurrence, and will earn a participation score of zero for all future occurrences.

Accessibility

The Americans with Disabilities Act of 1990 (ADA) provides protection from discrimination for qualified individuals with disabilities. Students with a disability, who require assistance, will need to contact the Office of Disability Services (ODS) for coordination of academic accommodations. The ODS is located at 213 Student Services Center. Their phone number is 319/273-2676. Additionally, please contact me immediately if you have a learning or physical disability requiring accommodation.