	TUE	THU
wk_3	1.17 **Proj 1: Development Critique** Show refined Comm App **Assign Microinteractions Reading** Project 2 Groups Assigned [Guest Critic: Francis Luu]	1.19 AD Lecture: MicroIxD + Animation KC Lecture: Refining Visuals/Project+Flow Doc Project 2 Groups finalized Project 2 Work Session (Design Brief) [Craft + Principle]
wk_4	1.24 **Proj 1: Final Critique** **Proj 1: Peer Review Forms Due** **Assign: Friend @ next class <u>1:30pm</u>** (Need 3 research participants)	1.26 **AD Lecture: Card Sorting** **Proj 2: In-class Card Sorting** **User Observation/Testing** Groups review app pain points
wk_5	1.31 **Proj 2: Design Brief/Sitemap Due** 12:00-1:20 Citizenship + KC 12:00-1:20 Tool Library + Mike + AD 1:20-2:50 One Bus Away + AD 1:20-2:50 Trailforks + KC	2.02 **Proj 2: Design Brief/Sitemap Due** 12:00-1:20 One Bus Away + Aaron/Alan + KC 12:00-1:20 Citizenship + AD 1:20-2:50 Tool Library + KC 1:20-2:50 Trailforks + Trevor? + AD
wk_6	2.07 **Project 2: Critique 1-KC + AD** **Initial Direction Citizenship/Tools** [Guest Critic: Drew Hamlin] *Sketch Office Hours	2.09 **Project 2: Critique 1-KC + AD** **Initial Direction One Bus Away / Trailforks** [Guest Critic: Drew Hamlin] **Mid-Proj. 2: Peer Review Due** *Sketch Office Hours
wk_7	2.14 **Proj 2: Development Critique** 12:00-1:20 Citizenship + KC 12:00-1:20 One Bus Away + AD 1:20-2:50 Tool Library + KC 1:20-2:50 Trailforks + AD [Guest Critic: Matthew Fagerness?]	2.16 **Proj 2: Development Critique** 12:00-1:20 Citizenship + AD 12:00-1:20 One Bus Away + KC 1:20-2:50 Tool Library + AD 1:20-2:50 Trailforks + KC [Guest Critic: Matthew Fagerness?]
wk_8	2.21 **Proj 2: Critique 3-KC + AD** **Semi-Final Design for** **Citizenship/Tool Library**	2.23 **Project 2: Critique 3-KC + AD** **Semi-Final Design for** **One Bus Away / Trailforks**
wk_9	2.28 **Project 2: Final Critique** 12:00-1:20 Citizenship with KC + AD 1:20-2:50 Tool Library with KC + AD	3.02 **Project 2: Final Critique** 12:00-1:20 One Bus Away with KC + AD 1:20-2:50 Trailforks with KC + AD
wk_10	3.07 Workday	3.09 Workday

All work due <u>*at start*</u> of assigned final exam time: 10:30am-12:20pm Thu Mar 16
No exceptions. <u>Schedule Spring Break travel accordingly.</u>

DESIGN 378 – Interface Design– Winter 2017 | Tue + Thu 12–2:50pm
Prof. Karen Cheng | kcheng@uw.edu | Office Hours Tue 4–5pm, Rm 257 Art Building

Course Goals
The purpose of this class is to help students develop the skills necessary to design an effective user interface (UI)—the space and controls through which a user communicates with a tool/application/device. Specifically, students will:

1 Research, plan and design prototypes for two different mobile applications
2 Discuss, analyze and evaluate what makes a UI effective or ineffective

Expectations
Be in class every day, on time, prepared with your work. Chronic lateness or insufficient preparation is seen as a lack of interest and lack of respect for myself and your colleagues. Take notes by hand; do not use your laptop or phone during critiques. Taking notes by hand improves recall and long-term comprehension, see: www.psychologicalscience.org/news/ releases/take-notes-by-hand-for-better-long-term-comprehension.html

You are expected to remain in class for the entire studio session. If you must miss class (or leave early/arrive late), please notify me via e-mail as soon as possible. **You are responsible for all assignments and information covered in all classes, regardless of your attendance record.**

Grading
Grading is based on:
1 The quality of the final projects—both visual and conceptual;
2 The design process—the extent of exploration and variation completed over the quarter;
3 Class participation—engagement and communication with others in your group(s), and with the entire class during critiques and in-class exercises.

3.8–4.0 is given to a student who has exhibited the highest possible performance in all aspects of the course—final projects, the design process and participation are excellent. This student independently seeks out additional information on design and is highly committed/passionate about their work.

3.4–3.7 is given to a student who exhibits superior performance in all aspects of the course—the final projects, design process, and participation are uniformly of high quality. This student has a thorough understanding of all concepts presented, and is motivated to improve and succeed.

2.9–3.3 is given to a student who has good performance in most aspects of the course. This student follows a thorough design process, has good design work, and consistent participation that reflects a clear understanding of almost all concepts being presented.

2.5–2.8 is given to a student who has fair performance in the course. The final work is adequate, with a design process that reflects the minimum effort needed to complete assignments. Participation and motivation are moderate.

0–2.4 is given to a student with poor performance in the course. Projects are incorrectly prepared, incomplete or missing. This student does not understand the majority of concepts presented and rarely participates in class. This student is not prepared for subsequent courses in design.

Point-Level Grading Rubric

Project 1: Communication App ReDesign = 45 pts

10 pts = Grade for Final Group Project Overall
  5 pts = Grade for Critique Presentation #1 (Initial)
  5 pts = Grade for Critique Presention #2 (Development)
  5 pts = Grade for Critique Presentation #3 (Final Critique)
10 pts = Peer Eval (six categories each worth 5 pts—I will average together all scores x 2)
10 pts = Grade for the design of your individual contibution (you must identity)

Project 2: App Re-Design = 65 pts

10 pts = Grade for Final Group Project Overall
  5 pts = Grade for Critique Presentation #1 (Initial Group Critique)
  5 pts = Grade fo Critique Presention #2 (All Class Critique #1)
  5 pts = Grade for Critique Presentation #3 (Development Group Critique)
  5 pts = Grade fo Critique Presention #4 (All Class Critique #2)
  5 pts = Grade for Critique Presentation #5 (Final Critique)
10 pts = Peer Eval (six categories each worth 5 pts—I will average together all scores x 2)
10 pts = Grade for the design of your individual contribution (you must identify)
10 pts = Grade for group documentation

Participation in Class = 10 pts
Average of your class attendance (each day = one pt, late or early leaving = deduction of .5 pts)

up to +3 bonus pts if you have been actively engaged during critique—
i.e., providing helpful critical feedback to people within and outside your group
(this is subjective judgement on my part, you can ask me at any time how you are doing)

up to -3 pts if you have been particularly disengaged during critique—
i.e., taking excessively long classroom breaks, whispering with others, on your phone/laptop, etc.
(this is subjective judgement on my part, you can ask me at any time how you are doing)

TOTAL POSSIBLE PTS: 120 pts +3 bonus points
After calculation of all point totals, I will apply a grading curve.

Plagiarism
Plagiarism is defined as using in your own work the creations, ideas, words, inventions,
or work of someone else without formally acknowledging them through the use of
quotation marks, footnotes, bibliography, or other reference. Please check with me if you have
questions about what constitutes plagiarism. This guide may also be helpful:
https://depts.washington.edu/pswrite/plag.html.

Instances of plagiarism will be referred to the Vice Provost/Special Asst. to the President for
Student Relations and may lead to disciplinary action.

Suggested Reading

Interaction Design: Beyond Human-Computer Interaction, Jenny Preece, 2013 (fourth edition)
www.id-book.com

Designing Interfaces, Jenifer Tidwell, 2011 (second edition)
designinginterfaces.com

Designing Mobile Interfaces, Eric Berkman and Steven Hoober, 2011
4ourth.com/wiki

Designing for Interaction, Dan Saffer, 2009 (second edition)
Microinteractions, Dan Saffer, 2013
www.odannyboy.com

Don't Make Me Think, Revisited Steve Krug, 2014 (third edition)
www.sensible.com

The Design of Everyday Things, Don Norman, 2013 (revised/expanded edition)
www.jnd.org

Mobile Design"Inspiration" Websites

iospirations.com
lovelyui.com
mobile-patterns.com
pttrns.com
tapfancy.com
ui.theultralinx.com

Required Reading: Information for Android Developers

developer.android.com/design/patterns/index.html

Required Reading: iOS Design Guidelines

developer.apple.com/ios/human-interface-guidelines/overview/design-principles

After-Hours Access to the Art Building
For after-hours access to the Art Building, please bring your Husky Card to the SOAAHD Advising Office (Rom 104 Art Building, open M-F, 8am-4pm). Student cards will be swiped, and you will receive an access sticker for your Husky Card. Access is instant after swiping. Access will be removed at the end of the year.

Access and Accommodations
UW Disability Resources for Students (http://depts.washington.edu/uwdrs) offers resources and coordinates reasonable accommodations for students with disabilities. If you have already established accommodations with DRS, please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course. If you have not yet established services through DRS, but have a temporary or permanent disability that requires accommodations (this can include but not limited to; mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or uwdrs@uw.edu or disability.uw.edu. When you contact the DRS office, their staff will work to establish reasonable accommodations for you through an interactive process between myself, you, and their office.

Violence Awareness/Prevention
—Always call 911 if you or others may be in danger.
—Call 206-685-SAFE (7233) to report non-urgent threats of violence and for referrals to UW counseling (www.washington.edu/counseling) and/or safety resources (http://www.washington.edu/safety).
—Don't walk alone. Campus safety guards can walk with you on campus after dark. Call Husky NightWalk @206-685-WALK (9255) or the shuttle/NightRide program: www.washington.edu/facilities/transportation/uwshuttles/NightRide.
—Stay connected in an emergency with UW Alert by registering your mobile number at www.washington.edu/alert to receive instant notification of campus emergencies via text/voice messaging. For more information, visit the SafeCampus website at www.washington.edu/safecampus.
—Proper student conduct is important for maintaining a healthy environment at UW. Please familiarize yourself with the UW Student Code of Conduct: http://app.leg.wa.gov/WAC/default.aspx?cite=478-120

PROJECT 1: COMMUNICATION APP REDESIGN
Working in groups (4-3 students per group), improve the user interface of your assigned communication/VoIP (voice over internet protocol) app: Skype, Google Hangouts or ooVoo. All three of these apps enable video, voice calls and chats/instant messaging between users.

Phase 1: Existing Organization and User Flows
This is a short project, so we are not going to redesign the entire app. Instead, we will focus on the specific user tasks as described for each app below. *For each task, create a flowchart that shows the user's path through the app—this is the "user-flow" or "task-flow" diagram.*

Skype

www.skype.com

en.wikipedia.org/wiki/Skype

www.macworld.com/article/2983748/
ios-apps/review-skype-6-0-for-ios-brings-
renewed-focus-to-a-venerable-
communication-app.html

Skype was founded by three Danish entrepreneurs in 2003, and subsequently acquired by Ebay in 2005, and Microsoft in 2011. People commonly use Skype for:

—Business-related Interviews (for employment, university admissions, etc.)
—Business-related group conference calls, especially with screen-sharing
—Education, especially to facilitate language exchange or connect to faraway experts
—Medical consultations, including hypnotherapy and other telemedicine options
—Friends/Family, especially those at long-distance, because Skype-to-Skype calls are free. (Skype has 40% of the international call market share, but it is blocked in certain countries).

Non-Skype users do not use Skype because:
—It's time-consuming to pre-arrange Skype calls in advance.
—It has limited call-forwarding capabilities, so can't really replace a land or mobile line.
—It's not always reliable; calls can be dropped or laggy.
—It's not secure; calls can be hacked and recorded by a third-party.
—It's not commonly seen as appropriate for texting/chatting/instant messaging, despite Microsoft's desire to expand/promote this use case.

For your redesign, please focus on improving the user interface for the following common use cases:
1) a Skype user wants to make a video call to another Skype user.
2) a Skype user wants to make an audio/voice call to a mobile phone or landline.
3) a Skype user wants to use the "test call" to make sure their setup is good priot to Skyping
4) a Skype user wants to make a group video call to several other Skype users (limit 10).*

*Note: Currently, a Skype mobile app user can only participate in a group video call— they can't initiate/host the call. However, for this project, you will pretend that this function is available for the mobile app, so you can design the user interface.

Google Hangouts

www.theverge.com/2013/5/15/4318830/
inside-hangouts-googles-big-fix-for-its-
messaging-mess

www.theverge.com/2016/5/19/11714334/
google-allo-messaging-app-hangouts-chaos

oyofandroid.com/hangouts-
app-review-android/

http://neurogadget.net/2015/10/11/
google-hangouts-review-
everything-you-need-to-know/17308

Google Hangouts launched in 2013 as a replacement for Google Talk and Google+ Messenger. Google intends for Hangouts to be a chat, voice and videoconferencing service. There are two additional Google communication apps: Google Allo, which is just for messaging, and Google Duo, which is just for video calling between two users. Google Pixel phones now ship with Google Duo and Allo instead of Hangouts. People use Google Hangouts in essentially the same ways as Skype (see above). Key differences are:

—It allows for free calls to a mobile/landline within the USA and Canada (not free on Skype)
—You can literally invite others to "hangout" together—for example, to live-stream music/ concerts, lectures/webinars, Q+As, backstage tours/talks, etc.
—Integration with the Google ecosystem (many people already have a Google account, so signup/registration is less arduous than signing up for Skype)

For your redesign, please focus on improving the user interface for the following three common use cases:
1) a Google user wants to video call another Google user
2) a Google user wants to make a group video call with several other users (limit 25)
3) a Google user messages another Google user, then switches to video

ooVoo

www.oovoo.com

en.wikipedia.org/wiki/oovoo

www.bewebsmart.com/app-review/
do-you-oovoo-maybe-your-kids-do

www.pcmag.com/article2/
0,2817,2388253,00.asp

ooVoo was founded in 2006 by Ohio entrepreneur Clay Mathile as a "cool" alternative to Skype for millennials (65% of ooVoo users are under 25). Millennials use ooVoo primarily for social/fun communications. Specifically, they commonly use ooVoo for:

—Messaging (with stickers and emojis) with friends and family
—Sending photos to friends and family
—Making video calls (with masks) to friends and family

Non-ooVoo users do not use ooVoo because:
—It's not seen as adult or professional
—It's not as established or well-known as other services, such as Hangouts and Skype
—It's not always reliable; calls can be dropped or laggy
—It's not private/secure (parents are concerned about protecting their children)
—Advertisements are very intrusive/irritating

For your redesign, please focus on improving the user interface for the following four common use cases:
1) a ooVoo user wants to make a video call to another ooVoo user.
2) a ooVoo user wants to make an audio/voice call to an ooVoo user.
3) a ooVoo user wants to make a group video call to several other ooVoo users (limit 12).
4) a ooVoo user (the host) wants to remove a member from a group chat.

Phase 2: Identifying Pain Points
In making your user/task flows, you probably observed "pain points"—bumps and frustrations in the process that prevented you from easily completing the desired task. *Mark these pain points on your task flow diagrams.*

Share your task flow diagram with the other group assigned to your app (there are two groups for each app). Fill in any missing steps and/or pain points.

To find even more pain points, your group should have found someone (a friend) to come to our class on Thursday 1/5 at 1:30pm. Based on your readings of user test processes (the Krug reading and the reading online at: www.nngroup.com/articles/thinking-aloud-the-1-usability-tool/, ask the friend to act as a research participant—the friend should think aloud while you observe them completing the assigned user tasks.

After completing the user testing, review any new findings/pain points with your group, and cross-check with the other group working on the same app. *Then, your group should develop at least two user flow variations that address the most problematic pain points—for our first UI critique next Tuesday 1/10.*

The group should be prepared to demonstrate/walk-through each task flow variation using the digital projector in our classroom. Please also bring the existing and new/proposed task flow diagrams on 11x17/tabloid paper—bring eight copies of each so that all your peers (in groups) can clearly follow your thinking, and offer useful critique.

The prototypes should be at medium fidelity—you will get better feedback when others can more clearly see what the new app looks like. On the paper diagrams, phones should be shown at 100% scale (your choice of iPhone or Android).

Phase 3: UI Development
Based on the feedback you receive during our first class critique on Tuesday 1/10, work to refine both the flow of the UI and the visual execution. At this point, you can more thoroughly address visual specifics (buttons, icons, animations, etc.) with more finesse. **Present at least three variations of the UI at our second critique—the development critique—on Tue 1/17.**

Again, the group should be prepared to demonstrate each of the three UI variations in a click-through using the digital projector. As before, bring eight copies of your old and new task flow diagrams on 11x17/tabloid paper, so that others can follow along and offer useful critique.

For this second critique, the prototypes should be at high-fidelity, showing what the actual app would like at 100% scale on the phone of your choice.

Phase 4: UI Refinement
For our final critique on Tuesday 1/24, you should address the feedback that your group received at the last critique, and prepare a final set of two-to-three variations for the last round of feedback. These final prototypes should be at high-fidelity, showing exactly what the actual app would look like at 100% scale on the phone of your choice.

As before, the group should be prepared to demonstrate each of the UI variations in a click-through using the classroom digital projector. Bring eight copies of your new task flow diagrams on 11x17/tabloid paper, so that others can follow along and offer useful final critique to your group.

Your group has until the end of the quarter to submit a final prototype for grading. Note that each person should also submit a description of their individual contribution to the group project (do this on the peer evaluation form, see below).

Note: Group/Peer Evaluation
Besides covering interface design, this course is also a learning experience in group dynamics and collaboration. Learning to work in groups is critical to future success as a designer, because teamwork is integral to the success of virtually every project.

Obviously, it's critical that everyone participate fairly in the process. To ensure this, you will rate each of your group members on a peer evaluation form. This form also allows you to describe your individual contributions to the group effort.

Your rating and comments will be shared anonymously with your peers at the conclusion of this first project, so please make the effort to provide constructive feedback that enables your peers to improve as designers and teammates in the future.

Constructive feedback contains specific actionable suggestions for behavior changes (for example: 'Jonny should use spell-check on his design files prior to critique/ presentation.') Non-constructive feedback is vague and non-actionable (for example: 'Jonny is a useless group member.') Non-constructive feedback does not help your peers to grow or learn.

Working in groups of four or five students (at least 2 VCD students + 2 IxD students; the fifth student can be VCD or IxD), improve the user interface and user experience of one of the four following apps:

US Citizenship Test 2016

This free app enables users to practice for the US Civics test, which is part of the naturalization process to becoming a US Citizen.

There are 100 civics questions on the test; the USCIS (US Citizenship and Immigration Services) officer will ask applicants ten of these questions at random. You must answer six of the ten questions correctly to pass. You must also be able to name one of your state's senators, and your district's representative in the US House of Representatives. You can download all 100 questions as a PDF from the uscis.gov website (see link at left). The average pass rate (as of May 2016) is 92%. Applicants can take the test a total of two times.

OneBusAway

OneBusAway provides real-time transit information—the scheduled and actual arrival times for busses and trains—for the Puget Sound region and beyond, so that users can determine which public transit options will best meet their needs.

OneBusAway was originally developed UW by students as an open-source project in 2009. Now, OneBusAway is maintained by a worldwide group of researchers/software developers, including UW, Georgia Tech, and the University of South Florida; these groups have setup the app in Atlanta, New York City and other locations. In King County, about 350,000 people use OneBusAway every month. Users can request and vote on ways to improve OneBus Away at: onebusaway.ideascale.com

NE Seattle Tool Library

The mission of the NE Seattle Tool Library is to serve its members by: 1) lending tools; 2) providing information on how to use those tools; and 3) creating events and workshops to bring the community together to make and build projects.

In general, tool libraries have important sustainable impacts because they reduce overconsumption and bring people together (building a stronger sense of community). In addition, tool libraries encourage fixing, repurposing, and upcycling of everyday things.

Currently, the NE Seattle Tool Library doesn't have a mobile app. However, they have a website that displays basic information about the library, its mission, and its tool inventory. For this project, you will use the website as a starting point to develop a new mobile app for the NE Seattle Tool Library members.

Trailforks: Mountain Bike App

Trailforks is a free app developed by Trevor May and his team to help mountain bikers find appropriate trails for their ability level, and to help guide bikers while they are on the trails.

Mountain bikers can access for free a variety of trails all over the world, with more trails being built every year. Trails have various levels of difficulty going from the easiest (green), to intermediate (blue), to advanced or expert (black). The Trailforks app revolves around a map that displays the trails. Users can click on each trail to find more information: current status, difficulty level, elevation change, length, photos and reports from other users, etc. Users can also contribute data about their use of trails.

Phase 1: Existing App Architecture + Design Brief
In order to redesign/improve your assigned app, you and your team must agree on the main goal(s) of the app, and the key aspects of the app that you will improve/solve.

To get everyone on the team in alignment, begin by first documenting the existing functions and organization of the app. Specifically, each team should produce an overall sitemap that fits on a single 11 x 17" sheet of paper. Use a combination of shapes, colors, illustrations and screenshots to make a sitemap that is clear and comprehensive—yet compact.

Once everyone on the team clearly understand all the functions of the app, conduct research to determine which of the functions are working well, and which need improvement (or removal). You may be able to find reviews of the app online, or ideas for improvement that are submitted/ranked by current users. To find other pain points, you and your teammates should also use the app yourselves, and observe the app being used by at least three different research participants (these can be friends that you recruit, or classmates who are working on a different app).

After conducting this research, your team should create a design brief that serves as a guide/contract for the group. The design brief should be on letter-size paper, and include answers to the following questions:

— What is the primary purpose/function of the app?
— What are the secondary, tertiary, etc. purposes/functions of the app?
— Who is the audience (the main users) for the app?
— How does this audience hear about the app and decide to download/install it?
— When do users use the app (what are the main use cases/user scenarios)?
— What are 5-10 things (rank these in priority) that you want to improve?
— Please justify each of these improvements with a short sentence explaining your rationale. If you are adding feature(s), note where these new feature(s) would be on your sitemap.

Each team will present their design brief and app sitemap on Tue 1/31 and Thu 2/02.

Phase 2: Initial UI Design Critique
Once your design brief is finalized/approved, the group can begin improving their app. Each member of the group should select a portion of the app—for example, a task flow that needs improvement, a new feature that needs to be implemented, or new visual assets— to work on. These tasks should be coordinated—team members should work together to ensure that all improvements will fit together in the final design.

During the first critique (on Tue 2/07 and Thu 2/09), each group should make a 10-15 minute presentation of their work. The team should provide a brief explanation of their app, and their overall strategy/design brief (the plan for improvement.) The team should then demonstrate the ideas they have developed thus far.

Think of this as a hypothetical first meeting with a superior (your boss). You and your team are showing your initial efforts in order to get input, advice and approval. The team should have several options (at least three different options) that each have their pros and cons; you want to discuss these options with everyone, and make decisions—so that the team can move forward toward a more refined and specific design.

The team should be prepared to demonstrate/walk-through their work using the digital projector in our classroom. Please also bring copies of your design brief and sitemap—you should bring copies of anything else that will enable others to see and have a productive discussion of your design work/design variations.