Cogsci 102C:

Cognitive Engineering (4 credits)
Cognitive Design Studio (6 credits)
Advice

Why do so few people make significant contributions?
Is it luck?
What is the difference between those who do and those who might have done?
If you think you can’t almost certainly you won’t

Some questions:
Why not do significant things and really first class work?
Have you ever done your absolute best in a course?
Are you making maximum use of being a member of the UCSD community?

Advice:
Prepare yourself. The time to start is now.
Do what you love and learn to love what you do
To do significant things you have to neglect other things
Be careful about commitments but when you commit really do it
Take time to think important thoughts
Be especially careful about who you spend time with
Introductions

**Professor:** Jim Hollan

*Office Hour:* Wed 9:00-10:00

and by appointment

*Office:* 159 CSB

*Email:* hollan@cogsci.ucsd.edu

*Web:* hci.ucsd.edu/hollan

*Lab:* hci.ucsd.edu

*Blog:* professorhollan.blogspot.com

**Email Instructors:**

102C@hci.ucsd.edu

Use this email for all course-related communication.

**Post Doctoral Fellow:**

Nadir Weibel

**Graduate TA:**

Gaston Cangiano

**Undergraduate IAs:**

Kathryn Brecht,
Darren Lou,
Oanh Luong,
Daniel Miller,
Mark Ohren,
William Wong
Textbook:
Rapid Contextual Design:
A How-To Guide to
Key Techniques for
User-Centered Design

Readings this week:

UCSD Policy on Integrity of Scholarship

Ch. 1 Introduction

Ch. 2 Planning Your Rapid CD Project

How many people have the text?
Cognitive Design Home

**Professor:**
Jim Hollan
Office Hour: Wednesday 9:00-10:00 & by appointment.
Office: 159 Cognitive Science Building

**Post Doctoral Fellow:** Nadir Weibel
**Graduate TA:** Gaston Cangiano

**Textbook:**

Email: hollan@cogsci.ucsd.edu
Blog: professorhollan.blogspot.com
Web: hci.ucsd.edu/hollan
Lab: hci.ucsd.edu

**Undergraduate IAs:**
Kathryn Brecht, Darren Lou, Oanh Luong, Daniel Miller, Mark Ohren, William Wong

Email Instructors: 102c-instructors@hci.ucsd.edu

This is a project-based course focused on the process of cognitive design. Students work in teams to design and evaluate a prototype application or redesign an existing system. The purpose of projects is to provide exposure to all phases of cognitive design: understanding users and their tasks, exploring representational and technological opportunities, brainstorming design ideas, building scenarios of use, prototyping, and obtaining user feedback.

The goal of the course is to help you develop a richer appreciation of user-centered system development by creating opportunities for you to practice the skills required for effective design. Cognitive design principles and practices have wide applicability. While projects can focus on human-computer interaction applications, projects in many other areas also fit well with the goals of the course.
This is a project-based course focused on the process of user-centered system design

• Students work in teams to design and evaluate a prototype application or redesign an existing system based on data from users.

• The goal of the course is to create opportunities for you to practice the skills required for effective user-centered design.
  – Cognitive design principles and practices have wide applicability.
  – While projects can focus on human-computer interaction applications, projects in many other areas also fit well with the goals of the course.

• We will discuss potential projects over the next two weeks.

• **You must commit to a project team by the third week.** Each project team will have 6-10 members.

• This is a very time consuming course. Capes for most of our courses list hours/week in the range from 3-5. For 102C it is typically 10-11. We recently increased credit from 4 hours to 6 hours.
Consider Dropping Course

• If you haven’t taken 102A and 102B
  – 102A-B is not required but 102C will be a better course for you if you have complete these two courses first
  – 102C is intended to be a capstone design course

• If you don’t have time to invest in a projects-based course
  – Not like other courses that you can do in spurts
  – Projects are extremely time consuming
  – You have to work consistently throughout the quarter

• If you don’t want to learn to participate in a fairly large team
  – Working in a team and coordinating activities is often challenging
  – Teams can be frustrating, especially if others don’t contribute their fair share
  – Challenging issues associated with joint presentations and papers
Individual and Group Portfolios

• You will maintain a personal wiki page on the class wiki to document your course-related activities. You should post to it at least weekly by Sunday evening. Start this week. It will be a personal portfolio documenting your work.
  – Typically it will be a summary of what you did on your project during the past week and your plans for the upcoming week
  – At times it might focus on a problem you are confronting so that the instructors and others on your project team might be able to offer suggestions
  – It can be suggestions of issues and topics your team should discuss
  – Over the quarter it should serve to summarize the state of the project and document the contributions you are making.

• After groups form, each group will maintain a section of the class wiki as a group portfolio.
Presentations

• We will devote some class time each week to informal project updates and to issues raised on the wiki.

• Once your projects are underway each group will present updates of their project and plans.

• There will also be a final presentation of your project at the end of the quarter.
Another important part of the course is writing a paper describing your project.

Although you will work in a team on your project, you have options in how you write the final paper.
- You can elect to write your final paper collaboratively, submitting one paper as a team.
- You also have the option of working in smaller groups to write your final paper.

Improving your writing skills is extremely valuable.
- Take care in writing, rewriting, and proofing. Clear writing goes hand in hand with clear thinking.
- Your goal is to produce a crisp clear conceptually sound paper.
- To accomplish this you need to structure the paper to help the reader understand what you did, why you did it, and what they can conclude about what you did.
- Write with precision and clarity. Be concise. Write plain prose. In short papers every word is precious. Use your dictionary and thesaurus to be sure you are using the best word to convey what you mean. Be careful about spelling, punctuation, and grammar. If in doubt consult a good dictionary or style manual.
Grading

25% Your participation as documented in your personal and group wiki updates, judgments of TAs/IAs, and summary judgments of your and other group member participation

25% Two Midterm Exams (April 15 and May 13)

25% Final Project Presentation to Class

25% Final Paper
Projects

User-centered design necessitates that you look closely at people, their activities, and the communities of practice in which they participate.

– Thus a primary project requirement is access to a community of users. There are many advantages to choosing a UCSD community.

– You also need to ensure that your project is of a scale that can be finished within a quarter.
Project Constraints

In order for the class to function well we need to impose some restrictions. The following constraints will aid us in coordinating class projects:

• **We need to minimize the number of general topic areas for projects.** By general topic area we refer to collections of projects that are similar in the background information and support they require. The purpose of focusing in a few areas is to allow us to bring in appropriate readings and cover topics in class that are relevant to your projects.

• **We definitely want multiple project groups in each general topic area.** Ideally there will be between three and five groups in each of the topic areas. This can be quite useful since groups can share data and other information they collect. It makes class presentations and discussions more interesting.

• **We need to limit the total number of groups to make the class manageable.** This will ensure we have sufficient time to provide consulting and other support services to the groups. Limiting the total number of groups means each group should have at least seven members. The suggested size is 6-10.
Project Issues

One important issue is that you find the project of interest.

My experience is that if you really invest time in understanding users and their tasks by collecting real data, you will find virtually any project to be interesting.

In formulating your project you need to focus it to a scale that is doable within the quarter. One of the most important decisions you will make is in limiting and focusing your project. Groups typically try to take on a project that is too large. That makes it very difficult to get experience with multiple iterations of contextual design.

Community Access:
Access to User Community; UCSD Communities are Especially Appealing
Access to Users With Time and Willingness To Interact With Your Team

Your understanding of tasks Involved

Doing a project that leads to real use is especially valuable and enjoyable.
Project Issues

Another crucial decision is arranging a weekly meeting time for your project team.

– We require you meet on campus during the day. This will assist the TA and IAs to serve as consultants to your project.
  • *Rooms available: Monday (and likely Wednesday and Friday) 12-12:50 in WLH 2113, CSB 004, and PCYN 120*

– One of the *absolute requirements for the formation of a group* is mutual agreement on a weekly meeting time and location.
  • A fixed weekly meeting time on campus is absolutely essential
  • *Your meeting time must be set in stone and not altered*
  • Groups will also need to meet at additional times each week
Over the years a number of very good projects have focused on website redesigns. Project groups have redesigned websites for:

- Department of Cognitive Science
- Career Services
- StudentLink
- California Digital Library
- An experiment sign-up site for the Department of Psychology
1997

Nov 6, 1997 What's new?

What is Cognitive Science?

Faculty Appointment Available.

People

Email Us

Course Offerings

Interdisciplinary Program

Seminars & Talks

Tech Reports & Software

CogSci Department Only

(Accessible only from a CogSci department computer).

Student Cognitive and Neuroscience Society (SCANS)

Links to Cognitive Science Sites

UCSD

Cognitive Science

Mailcode 0515

0908 Gilman Hall

La Jolla, CA 92093-0515

Voice: (619) 534-8771

FAX: (619) 534-1128

Email: webmaster@cogsci.ucsd.edu

Cognex WWW server usage stats

Cognitive Science major Anthony Graham
ECL Laboratory

WITH THE FUTURE BEHIND THEM

Analysis of the language and gesture of South America's indigenous Aymara people indicates a reverse concept of time. Contrary to what had been thought a cognitive universal among humans — a spatial metaphor for time that places the future ahead of oneself and the past behind — the Amerindian group from the Andes locates this imaginary abstraction the other way around: with the past in front of them and the future behind. The study, published in the current issue of the journal Cognitive Science, was led by Embodied Cognition Laboratory director Rafael Núñez.

For details on the research study, see This Week@UCSD or the UCSD NewsRelease. The research was also featured in articles in:

- New York Times
- San Diego Union-Tribune
- Science
- NPR's "Living on Earth"
- BBC World Service
- CBC's/NPR's "As It Happens"
Congratulations to Distinguished Professor Marta Kutas who has been elected a Fellow of The Society of Experimental Psychologists, the oldest and most prestigious honorary society in Psychology. The Society elects only a handful of new Fellows each year, and Fellows are elected for Life. ...
Career Services
Career Services

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**Career Exploration**
- Getting Started...
- Advising
- Career Portfolio
- Career Workshops
- Choosing a Major
- Diversity Connections
- Making Contacts
- Occupational Information
- Self-Assessment
- Special for Alumni
- Special for Grad Students
- Survey of Recent Grads

**Job Search**
- Getting Started...
- Interviewing
- Internship Resources
- Job Fairs
- Job/Internship Listings
- On-Campus Interviewing
- Peace Corps Opportunities
- Resumes/Cover Letters/ CV
- Salary Information
- Work-Study

**Grad/Professional School**
- Getting Started...
- Advising Appointments
- Application Essays
- Areas of Interest
- Fairs: Law & Grad School
- Financial Aid/Fellowships
- Info Sessions & Panels
- Law School Information
- Med School Information
- Rec Letters & File Service
- Resources & Libraries
- School Recruiter Visits

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Center hours: Mon/Tue/Thur: 8:00am-4:30pm; Wed: 8:00am-7:00pm; Fri: 8:00am-2:00pm.
CAREER SERVICES CENTER
A Department of Student Affairs

Career Information
Advising | Survey of Recent Grads | Majors to Careers
Research Specific Careers

Jobs & Internships
Internship SuperSite | Job Fairs | Interviewing
WSDM: Career Communication Guide

Professional or Graduate School
Areas of Study | Application Basics
Grad, Law, and Health School Fairs

Events

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<table>
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<tr>
<td>1:00pm</td>
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Spotlight
ALUMNI PROFILE
Profiles in Public Service
Past Projects: Device Interfaces

Over the years a number of excellent projects have focused on interfaces for devices

– Alarm clocks for students
– Parking ticket computer
– ATM
– Car radio controls
– Aerial robotics competition
– Home appliances (microwave, etc)
– PDAs
– Tablet PC
Past Projects: Information Displays

Over the years a number of excellent projects have focused on redesign of information displays

– Kiosk & Information Displays
  • Michael Bedar, Ecoparque in Tijuana

– Maps (campus maps available on ucsd.edu, csb maps)
Past Projects

Good way to start is by identifying a problem

– Scheduling meetings
– Remembering passwords
– Meeting new people
– Staying in touch with friends
– Shuttle bus
– Parking
– Department or other organizational unit’s problems: staying in touch with graduates, schedule of talks and events, visits, spotlights of activities
IDEO: Deep Dive
Students from Past 102C Classes

Omid Farivar

Whitney Friedman

Aaron Presley

Nastasha Tan

- They will each take about 15 minutes to talk about their projects and give you advice.
Next Week: Discuss Possible Projects

• Related to on-going projects in our lab

• At companies we have good contacts with

• UCSD and other not for profit organizations

• Bring your suggestions