

## Course Syllabus: ID 3320

**Course Title:** User-Centered Design Methods

**Instructor:** Wayne Li / Design West Room 254 / [wayne.li@design.gatech.edu](mailto:wayne.li@design.gatech.edu)  
Office Hours: by appointment

**TA:** TBD  
Office Hours: TBA

**Credit Value:** 3.000

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**Catalogue Description:** This course introduces students to current user-centric design methods used to identify, understand, assess and prioritize the factors that contribute to more effective design solutions.

### Objectives:

This course deals with the various methods that designers utilize in fundamentally understanding users and their interaction with products, experiences, or services. Methods such as stakeholder identification and analysis, needfinding, social ethnography, videography, as well as introductions in the behavioral and social sciences (i.e., psychology, sociology, anthropology, etc) will all be introduced, but magnified through a design lens. Techniques will require actual demonstration and documentation.

Specifically, the course objectives are to:

- Introduce observational methods and ethnography techniques. This can be done through site observations, logbooks and videography / photography.
- Reinforce ethnography analysis and documentation: user interviewing, method acting, as well as movie documentary processes will be covered.
- Cover the application of specific field study in the cultural anthropology and sociology fields, and use beginning toolsets for analysis and filtering of data. Beginning statistical analysis will be covered.
- Deal with user perceptions, particularly based on need classification and analysis.

### Learning Outcomes:

Upon completion of the course students are expected to demonstrate knowledge, skill and abilities in the following areas:

- Observe and interpret user scenarios in the field, and identify explicit and implicit need sets through active observation and subject interviews.
- Utilize the basic design process to cycle iteratively through concrete observation, design abstraction, frameworks, design imperatives, metaphor, and solution generation.
- Use a variety of techniques to communicate user scenarios persuasively and professionally (sketches, diagrams i.e., logbooks, photography/graphics, videos and prototypes) – in various formats: visual, written, verbal and experiential.
- Craft an effective argument using empathy, contextual awareness, and creativity that advocates for the implicit needs of the user / subject under study.

### Course Format:

Instructional methods for teaching the course include:

- Lectures and in-class discussions

- Group and Individual Assignments
- In-class exercises
- Presentations and Reviews
- Readings

**I. Assignments**

Course lecture readings and homework assignments will be handed out periodically to enforce the class learning. The physical deliverables of the homework could result in video, graphic layouts and reports.

**II. Exercises / Class Participation: Modules**

Class Exercises given in class to strengthen mastery of tools and lecture work. Class participation and attendance will also be monitored to determine grading. Further, module techniques: such as method acting exercises, site visits and observations will require outside team based homework that will be critiqued in class.

**III. Final Examination / Assignment**

The final exam will be an industry assignment, possibly a sponsored study: a final assignment will require students to work in teams to create a final presentation / document utilizing several of the ethnography techniques in order to demonstrate understanding of inherent needs of users and stakeholders that could not be deduced from a layman’s perspective.

**Weekly Learning Activities:**

- Lecture and In-Class Exercises (3 hours)
- Offline Reading (1.5 hour)
- Assignments (3-5.5 hours)
- Logbook / Reflection (1-2 hours)
- Total Hours (8.5-12 hours)

**Scope of Work:**

- Develop a body of evidence showing an understanding of observation, hierarchy of user needs, metaphor and design imperatives with respect to product, service, and experience design. The body of evidence may include but is not exclusive to: written, graphic, and time-based (sequential) deliverables.

**Course Schedule: (subject to change)**

<i>Week</i>	<i>Date</i>	<i>Weekly Topic</i>	<i>Assignment/Deliverable</i>
<b>1</b>	Aug 19	Introduction and Intent / Good Product Bad Product	<b>Prepare Logbooks</b>
<b>2</b>	Aug 26	Design Process / Nature of Needs	<b>Personal Statement</b>
<b>3</b>	Sep 2	Observations: Watching	<b>Poster Analysis</b>
<b>4</b>	Sep 9	Observations: Ask / Visual Anthropology	<b>Watch Assignment</b>
<b>5</b>	Sep 16	Revealing Culture / Interviews / Narrative	<b>Poster Design</b>
<b>6</b>	Sep 23	Frameworks: Mindmaps / Dan Roam	<b>Observe and Ask</b>
<b>7</b>	Sep 30	Moccasins Presentations	<b>Moccasins Presentations</b>
<b>8</b>	Oct 7	Big Needs, Small Products / Frameworks: Use, Usability and Meaning	<b>Logbooks / Need Map</b>

<b>9</b>	Oct 14	Frameworks: Typologies and Matrices	
<b>10</b>	Oct 21	Review / Medium and the Message	
<b>11</b>	Oct 28	Imperatives: Design Principles / Beginning Statistics	<b>Business Analysis</b>
<b>12</b>	Nov 4	Imperatives: Solution Metaphors / Marketing Equivalents	<b>Statistics Worksheet Due</b>
<b>13</b>	Nov 11	Development	
<b>14</b>	Nov 18	Studio Check in – Presentation Advising	
<b>15</b>	Nov 25	Final Presentation Dry-Run	<b>Final Presentation</b>
<b>16</b>	Dec 2	Final Presentations	<b>Final Presentation</b>

### General Responsibilities and Expectations:

*Attendance for this Course: Students are required to be in class with their work ready for review. More than 3 unexcused absences automatically result in a one letter grade reduction.*

Any extenuating circumstances for absences beyond three must be documented. Documentation as stipulated in Attendance policy (religious, approved activity – varsity sport / conference / COVID etc) are excused and do not count towards the 3 absences.

**Presentations:** Students are expected to maintain a *professional* standard of presentation. While equipment for presentations will be provided (projector, A/V), any special considerations need to be voiced before presentation time, and if not available from the school, will be the responsibility of the student.

**Logbooks:** Are a fundamental documentation for field practice, and a way to catalog design thinking. All work should be kept in the logbook. Logbooks will be turned in twice during the semester for grading.

**Deadlines:** Students will hand in their final presentations by schedule due date. Deadlines are set by the instructor and are *hard* deadlines. Late work will only be accepted under extenuating, documented circumstances.

**Participation:** Attendance and participation is expected in class and outside team meetings. Class participation indicates a demonstration of independence, initiative, and time management, i.e., professionalism. Participation/attendance will be taken throughout the semester.

### Deliverables: (please see Schedule sheet for exact deliverables / due dates)

- Logbooks (25 pts)
- Personal Statement (5 pts)
- Poster Analysis / Poster Design (10 /15 pts)
- Watch / Observe & Ask (10 / 10pts)
- Moccasins (20 pts)
- Need Map + Solution (5 pts)
- Business Analysis (5 pts)
- Statistics Exercise (5 pts)
- Final Presentation (see grading: 30% of **total** grade):

## **Evaluation Criteria:**

Projects will be evaluated on demonstrated understanding and relevance to lecture materials and comprehension of techniques and exercises taught in class. Assignment criteria, such as clarity of representation, clarity of verbal presentation, and demonstration of time commitment and other metrics will be clearly labeled for each assignment. Observations of contributions to solo and group activities, craft and quality of homework, and clarity of verbal and graphic presentations will also contribute to grade assessment. Final Presentation as a total sum learning of the class is heavily weighted. Finally, class participation and understanding of readings in preparation for class lectures will be assessed and monitored.

## **Grading:**

Assignments and Homework: 50%

Class Participation: 20%

Final Presentation: Assignment: 30%

The course is graded on a 10% letter scale:

90 - 100 = A

80 < 90 = B

70 < 80 = C and so on.

NOTE: This course does not round "up" e.g., 89.5 is a B. 79.95 is a C. 90 is an A.

## **Materials List:**

The materials for this lecture course are somewhat lighter than a studio course. Of primary importance is the equipment needed to do ethnographic study. This includes (but is not limited to):

- Logbooks (Sketchbook, 3 ring binder, digital OneNote, etc)
- Camera (with video function) and/or Camcorder
- Computer for 1) Graphic Design (Adobe CS suite) and 2) Video Editing (iMovie / Final Cut / Premiere)

All of this equipment should be readily available through the ID school (computer lab/print shop), and most students already have this type of equipment. Many smart phones have all the functionality (camera, video, editing) built in, but know that for this work, especially in low light/darkness, the quality of the sensors in these devices may not be sufficient. However, for quick, discreet filming, small camera / phone tools may actually be a good supplement/benefit.

If these materials are cost prohibitive, HD Camcorders and Cameras are available for checkout, and a video-editing suite (iMac / iMovie / Final Cut Pro X) are also available in the ID Video Lab and Library Multimedia basement.

## **Resources Required: Bibliography: (selected excerpts/reading posted on Canvas)**

- Barber, Benjamin (1995). *Jihad vs. McWorld*. Balantine Books.
- Booth, W. C., Colomb, G. G., & Williams, J. M. (2003). *The Craft of Research* (2nd ed.). Chicago: University of Chicago Press.

- Bruner, Jerome (1992). *Acts of Meaning: Four Lectures on Mind and Culture* Jerusalem-Harvard Lectures
- Collier, Jr., John (1967). *Visual Anthropology: Photography as a Research Method*. Holt, Reinhart and Winston
- Cowan, Ruth (1987). *Less Work for Mother*. American Heritage of Invention and Technology.
- Deighton, John, Grayson, Kent (1995). *Marketing and Seduction*. Journal of Consumer Research, Inc., Vol 21.
- Goble, Frank (1970). *The Third Force: The Psychology of Abraham Maslow: A Revolutionary New View of Man*. Pearson Education Inc.
- Knapp, Thomas (1996). *Learning Statistics Through Playing Cards*. Sage Publications.
- Lehrer, Jonah (2012). *Imagine: How Creativity Works*. Houghton Mifflin Harcourt.
- McLuhan, Marshal (1964). *The Medium is the Message. Understanding Media: The Extensions of Man*. McGraw Hill.
- Nichols, Bill (ed.), McDougall, David (1976). *Movies and Methods Vol I. "Prospects of the Ethnographic Film"*. University of California Press.
- Patnaik, Dev & Becker, Robert (1999). *Needfinding: The Why and How Uncovering People's Needs*. Design Management Journal.
- Visocky O'Grady, J. & Visocky O'Grady, K. (2006). *A Designer's Research Manual: Succeed in Design by Knowing Your Clients and What They Really Need*. Rockport Publishers.

#### Recommended Reference Materials:

**TextBooks: Wayne Li: Design Empathy and Contextual Awareness:**

[Amazon Link: Purchase Textbook](#)

**Periodicals:**

**Web Resources:**

**Credits and Acknowledgements:** I must first take the opportunity to credit and thank Dev Patnaik, for a foundational course ME216A: Needfinding at Stanford University, of which ID2325 is patterned. Many of the concepts taught here draw *heavily* from his work, along with additional concepts of my own. Though this course focuses more on visual anthropology, the fundamental theories on needfinding must be credited back to Dev. Acknowledgements also to Professor Dave Beach, for his Good Products / Bad Products exercise, from which the introductory lecture is taken as a teaching tool.

General Notes (Institute Policies and Procedures):

#### COVID Class Guidelines:

This course will be taught in person, but we will be mindful of COVID guidance by the institute should there be any emergency or outbreak. Should conditions warrant, we may shift to a Modified Operations model with lecture materials online w/class demonstrations and exercises, with socially distanced instruction as needed or by guidance from the Institute.

Should you miss a class due to COVID or quarantines, all Course materials have been posted to Canvas for remote review and for students with exceptions (International students without visas, ODS, etc). Your absence(s) will be excused with documentation (doctor's note and/or positive COVID test).

#### Use of AI: Computer Algorithm Generated Work

You are encouraged to be inspired and use AI tools for your projects. However, there is also a catch with the use of AI. Legally, many AI tools do not assign you the intellectual property rights for usage of their algorithm. For the sake of the course, this isn't an issue, but be aware that in professional practice, this would hamper your ability to market your design. For the purposes of this class, when your team utilizes

this technology, for inspiration or for presentation, please be sure to indicate where AI was used, and if it is the result of a specific AI generator. It is required that your design work still be your own / team generated. Thus, even if handing in a final with AI generated work, you would be required to also document the original design that was fed into the generator. For inspiration work, your original final work must show a departure from the AI inspiration (e.g., it can not be just a copy/trace of AI work). NOTE: No AI will be accepted for video work. Your ethnographic film must be original to the team.

## **Attendance (GT Institute Policy)**

### **A. General**

- 1 Each term, a course listing is published showing the time period for each class.
- 2 If an instructor should be late in meeting the class, the students shall wait twenty minutes after the published starting time. If the instructor has not arrived by that time, the students may leave unless specifically notified to await the instructor's arrival.

### **B. Class Attendance**

- 1 There are no formal institutional regulations regarding class attendance at Georgia Tech. The resources of the Institute are provided for the intellectual growth and development of the students who attend. A schedule of courses is provided for the students and faculty to facilitate an orderly arrangement of the program of instruction. The fact that classes are scheduled is evidence that attendance is important; students should, therefore, maintain regular attendance if they are to attain maximum success in the pursuit of their studies.
- 2 All students are responsible for obtaining an understanding of each instructor's policy regarding absences; all students are expected to attend announced quizzes, laboratory periods, and final examinations. Although it is recognized that occasionally it may be necessary for students to be absent from scheduled classes or laboratories for personal reasons, students are responsible for all material covered in their absences, and they are responsible for the academic consequences of their absences. Students should discuss planned absences with their instructors as soon as possible after the beginning of an academic term. Work missed may be made up at the discretion of the instructors.
- 3 Students who are absent because of participation in approved Institute activities (such as field trips and athletic events) will be permitted to make up the work missed during their absences. Approval of such activities will be granted by the Student Academic and Financial Affairs Committee of the Academic Senate, and statements of the approved absence may be obtained from the Office of the Registrar. Course instructors are responsible for establishing reasonable deadlines and/or make-up materials for the missed work, and for clearly communicating this information to the relevant student(s), when absences for Institute activities are approved.

Students who are absent because of participation in a particular religious observance will be permitted to make up the work missed during their absence with no late penalty, provided the student informs the course instructor of the upcoming absence, in writing, within the first two weeks of class, and provided the student makes up the missed material within the timeframe established by the course instructor.

Exercising one's rights under this policy is subject to the Georgia Tech Honor Code. The course instructor is responsible for establishing reasonable deadlines and/or make-up material for the missed work, and for clearly communicating this information to the student. Students may choose to appeal to the Student Academic and Financial Affairs Committee of the Academic Senate for formal approval of this type of absence.

### **Academic Honor Code**

The Academic Honor Code is a student initiative that became an official Institute policy in 1996. The objective of the Academic Honor Code is to increase academic integrity and strengthen trust in the Georgia Tech community. All students are required to sign an agreement acknowledging their awareness of the Academic Honor Code. They are strongly encouraged to seek a full understanding of their instructors' expectations regarding academic honor.

The [Academic Honor Code](#) is available in the [Georgia Tech Policy Library](#).

## **The Honor Agreement**

*"Having read the Georgia Institute of Technology Academic Honor Code, I understand and accept my responsibility as a member of the Georgia Tech community to uphold the Honor Code at all times. In addition, I understand my options for reporting honor violations as detailed in the Code."*

## **Accommodations for Individuals with Disabilities / Special Needs:**

Whether you are a prospective student, current student, family member, or faculty/staff member, we hope our website [(404)89-2563 or <http://disabilityservices.gatech.edu>] will provide insight about our dedication to creating an inclusive educational environment for all Georgia Tech students. Please take some time to browse through our website to find more information on how to register for services, guidelines for documentation, details about accommodations, and helpful information for faculty and staff.

## **Mission Statement**

Our purpose is to ensure that students with disabilities have equal access to all programs and activities offered at Georgia Institute of Technology. Our goal is to foster the full and self-directed participation of persons with disabilities in post-secondary education, including students, faculty, staff and visitors. Comprehensive support services and accommodations are available to encourage and enable them to take full advantage of Georgia Tech's educational, social, and cultural opportunities.

## **What We Do**

Disability Services provides support, resources, and accommodations to more than 600 students with chronic disabilities. Staff members serve as full time advocates for students with disabilities to ensure physical and programmatic access to make the Georgia Tech campus, and a Georgia Tech education, accessible and inclusive for all students. In addition to providing services to students, we also strive to be a resource for faculty and staff.

Disability Services provides support and resource information for students with disabilities at the Georgia Institute of Technology. The Office of Disability Services operates under the guidelines of Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) and its amendments (ADAAA). Our office services any Georgia Tech student who has a documented, qualifying disability.

## **Student Bill of Rights:**

1. The right to attend classes at regularly scheduled times without deviation from such time and without penalty if the student cannot attend instructional, lab, or examination hours not institutionally scheduled.
2. The right to consult with an assigned and qualified advisor for a reasonable amount of time each term.
3. The right to consult with faculty outside usual classroom time such as regularly scheduled office hours by appointment.
4. The right to have reasonable access to campus facilities of which use is required to complete course assignments and/or objectives.
5. The right to receive a syllabus for each course at the first class meeting. The syllabus should include an outline of the course objectives, criteria used in determining the course grade, and any other requirements. Students should be informed of any changes made to the syllabus with reasonable time to adjust to these changes.
6. The right to have reasonable time to learn course material prior to the administration of an examination.
7. The right of each student to receive access to any of his/her records kept by the institution.
8. The right to have reasonable access to grading instruments and/or evaluation criteria and to have graded material returned in a timely fashion.
9. The right to be informed of the grade appeals process.
10. The right to have reasonable facilities in which to receive instruction and examinations.

11. The right to be informed in each course of the definition of academic misconduct.

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### **Contacting the Instructor for an Appointment:**

If you would like to arrange a meeting or appointment, please speak with the instructor after class or contact the instructor via email. Please allow 24-48 hours for a response.

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### **Student-Faculty Expectations**

At Georgia Tech we believe that it is important to continually strive for an atmosphere of mutual respect, acknowledgement, and responsibility between faculty members and the student body. See <http://www.catalog.gatech.edu/rules/22/> for an articulation of some basic expectations – that you can have of me, and that I have of you. In the end, simple respect for knowledge, hard work, and cordial interactions will help build the environment we seek. Therefore, I encourage you to remain committed to the ideals of Georgia Tech, while in this class.

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### **Diversity, Equity, and Inclusion**

The College of Design (COD) community of faculty, staff, and students aspires to create and nurture an environment that is supportive of all backgrounds where different views and ideas are respected and encouraged. In all our pursuits, we commit to justice, diversity, equity, and inclusion with regard to race, national origin, language, age, sexual orientation, gender, religion, and ability. Moreover, we will encourage intellectual inquiry and respectful exchange that cements our dedication to these principles.

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### **Modified Operations Policies:**

With developments and improvements to digital instruction over the past few years, the Institute has developed policies to leverage digital learning as much as reasonably possible. The policy sets forth requirements, procedures, and responsibilities related to the scheduling of digital instruction and/or make-up classes due to the modification of campus operations, closing of campus, or the necessary closing of instructional spaces for any reason (including but not limited to emergencies, such as inclement weather, power outages, or other infrastructure failures). Students should await communications from their instructors regarding delivery of their classes during that period based upon the [\*Digital Learning Days for Modified Campus Operations Policy\*](#). Students should follow guidance and/or directions provided by the Office of the Vice President for Student Engagement and Well-Being regarding student activities, events, programs and services.

*This syllabus may be subject to change during the course of the semester. IF so, the syllabus will be updated online and you will be informed of the changes.*