**Course Number:** ID 3320

**Course Title:**  User Centered Design Methods

**Instructor:** TBD

**Credit Value:**  3 credit hours

**Course times:**  T|R 8-9:30 am

**Location:**  TBD

**Catalogue Description**

This course introduces students to 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
* Reading

# 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.

# 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.

# 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
  + Offline Reading
  + Assignments
  + Logbook / Reflection

# 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: see Schedule handout for exact details)

|  |  |  |  |
| --- | --- | --- | --- |
| ***Week*** | ***Date*** | ***Weekly Topic*** | ***Assignment/Deliverable*** |
| **1** |  | Introduction and Intent / Good Product | **Prepare Logbooks** |

Bad Product

* + 1. Design Process / Nature of Needs **Personal Statement**
    2. Observations: Watching **Poster Analysis**
    3. Observations: Ask / Visual Anthropology **Watch Assignment**
    4. Revealing Culture / Interviews / Narrative **Poster Design**
    5. Frameworks: Mindmaps / Dan Roam **Observe and Ask**
    6. Moccasins Presentations **Moccasins Presentations**
    7. Big Needs, Small Products /

**Logbooks / Need Map**

Frameworks: Use, Usability and Meaning

* + 1. Frameworks: Typologies and Matrices
    2. Review / Medium and the Message
    3. Imperatives: Design Principles /

**Business Analysis**

Beginning Statistics

* + 1. Imperatives: Solution Metaphors / **Statistics Worksheet Due**

Marketing Equivalents

* + 1. Development
    2. Studio Check in – Presentation Advising
    3. Final Presentation Dry-Run **Final Presentation**
    4. Final Presentations **Final Presentation**

# General Responsibilities and Expectations:

Attendance: Students are required to be in class with their work ready for review. More than 3 absences automatically result in a one letter grade reduction. Any extenuating circumstances for absences beyond three must be documented. Please refer to the Institute attendance policies here: <http://www.catalog.gatech.edu/rules/4/>, and contact me with any questions.

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 Dec 6. 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%)
* Personal Statement (5%)
* Poster Analysis / Poster Design (10%/15%)
* Watch / Observe & Ask (10%)
* Moccasins (20%)
* Need Map + Solution (5%)
* Business Analysis (5%)
* Statistics Exercise (5%)
* 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%

# 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 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 T-Square)

* + - 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.

**Academic Honor Code**

Refer to details of the Institute’s Academic Honor Code here: <http://catalog.gatech.edu/rules/18/>. Please contact me with any questions.

**Special Needs**

All students with special needs, permanent or temporary disabilities are urged to contact me or [troy.whyte@troy.whyte@design.gatech.edu](mailto:troy.whyte@troy.whyte@design.gatech.edu)  (404-385-1275) for information or assistance to coordinate their service needs.

**Office of Disability Services** website: <http://disabilityservices.gatech.edu/>

The Office of Disability Services, located in Suite 221 of the Smithgall Student Services Building, provides support  and information regarding students with disabilities at the Georgia Institute of Technology.  Assistance is also available for meeting the requirements of the Americans with Disabilities Act (ADA)  and Section 504 of the Rehabilitation Act of 1973. The Disability Services Program assists students self-identifying as having a disability to obtain reasonable accommodations.   Official documentation of disability is required to determine eligibility for accommodations or adaptations that may be helpful on campus.

Staff members in the Office of Disability Services serve as full-time advocates for students with disabilities. Their role is to ensure that all students have physical and programmatic access to all college programs, thereby enhancing their interactions in all activities of the campus community.

Their purpose is to improve the educational development of students with disabilities and to enhance the understanding and support within the institute through equitable access, accommodations, and the provision of programs and services.

**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 this course 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**.**