**Course Number:** ID 2023

**Course Title:** Ind Des Studio I

**Instructor:**  TBD

**Credit Value:** 3 Credit hours

**Course times:**  M+F, 8:35am - 11:55am,

**Location:** Architecture (West) 261

**Pre-requisite:** ID 1012 Ind Des Fundamentals 2

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| **Co-requisites:** ID 2101 Digital Design Methods  ID 2325 User Centered Design Methods | |  | |

**Catalogue Description:**

This course applies structured design methods to research and exploration of product form and function, and introduces concepts of user centered design.

**Objectives:**

Students will learn about the iterative nature of the design process, learn to apply design research to the problem solving process and learn to clearly communicate and present their design ideas to others. These will be applied to the development of products in projects throughout the semester.

**Learning Outcomes:**

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

* + - * + Understand the relationship between product function and use environment
        + Summarize design rationale and clearly communicate it to others
        + Use research to support design decision making
        + Apply principles of human factors and ergonomics
        + Execute testing to support evidence based design

**Course Format:**

Instructional methods for teaching the course include:

* Lectures and in-class discussions
* Group and Individual Projects
* Presentations and project reviews
* Open studio sessions\*
* Readings

\*Open studio sessions may include a project production/workshop time, one-on-one/group tutorials, and desk critiques

**Weekly Learning Activities:**

* Lecture and Studio Sessions
* Offline Reading
* Outside project work
* Total Hours

**Scope of Work:**

* Students will undertake three projects during this course. Each project will require: the creation of a process book, a presentation of their work, and creation of a designed product as outlined in each project description. Individual projects may require additional deliverables.
* Projects in this class will require time in the workshop, both inside and outside of class.
* Projects and class lectures will be accompanied by outside reading. The readings are compiled to cover basic information needed for a project and are required. Students are strongly encouraged to research material beyond the required readings in order to more fully explore the topics that are introduced.
* The class will include outside field trips in order to provide exposure different aspects of the professional design world.

**Course Schedule:**

**Schedule Activity Comments**

**Week 1** Class Intro Instructor Intro, Syllabus overview, Introduce Project 1

Lecture Visual Thinking

Documenting the Design Process

Project 1 Begin research into form and concept exploration Shop Orientation

Shop Orientation 1 and 2

**Week 2**  Lecture Basic Graphic Principles for Presentation

Project 1 (cont) Continue concept exploration and testing

*Presentation* : Choose and present a concept solution

**Week 3**

Project 1 cont) Complete instructions for building design concept Construct a fellow student's design

**Week 4** Project 1 (cont) *Presentation*: Final Presentation/demonstration of constructed models in class

Project 2 Begin Project 2

Lecture Storyboard creation

Levels of model making

Model Making Techniques

Anthropometry and Human Factors and Ergonomics of the Hand

Field Trip

**Week 5** Shop Orientation Third Shop Orientation

Lecture Material Characteristics

Sustainability

**Week 6** Project 2 (cont) *Presentation*: Mid project presentation

**Week 7** Project 2 (cont) Model building and storyboard creation

Project 2 (cont) *Presentation:* Present final model and storyboard

**Week 8**

Project 3 Introduction to Project 3

Lecture Products and Environments

**Week 9** Lecture Function and Task Analysis

Observing Users

**Week 10** Lecture Interface Design

Human Factors – Cognition and Displays

**Week 11** Lecture Formative Usability Testing

Electronic Prototyping  
 *Presentation*: Mid project presentation

**Week 12** Lecture Select final interface and physical form

Complete interface and physical design testing

**Week 13** Begin storyboarding

Begin final model creation and interface mockups

**Week 14**

Lecture Continue final model creation and interface mockups

Complete final usability testing (physical and interface)

**Week 15** Project 3(cont) Complete final mock ups

Project 3 (cont) *Presentation:* Final Presentations will be held on Wed and Fri

**Week 16** Last Day of Class Mandatory studio cleanup day

Wed, Fri: Reading Period and Final Exams

**General Responsibilities and Expectations:**

**Attendance**: Students are required to be in class for designated times with all assigned work completed. Attendance will be recorded for each student for each class during the semester. Excessive missed classes will affect final course grades. A total of 3 unexcused absences are allowed before impacting a final grade. A fourth unexcused absence will result in the reduction of one letter grade from the final course grade. Each additional unexcused absence will result in the reduction of an additional letter grade. Excessive unexcused absences will result in failure of the course. Students are expected to be on time. Students will be recorded as late if arriving more than 15 minutes after the scheduled start of class. 3 unexcused late arrivals will be counted equivalent to 1 unexcused absence. If late, it is the student's responsibility to personally check in with an instructor upon arrival to class to ensure proper recording of attendance. Failure to check in with an instructor upon late arrival may result in being marked absent. Students arriving more than one hour late without a valid excuse will be counted absent.

If you know that you will miss a class for a valid reason (such as for a major religious observance or participation in an approved Institute activity), please let me know at least 24 hours in advance. If an unexpected situation occurs, it is your responsibility to contact me within 24 hours of the scheduled class time. Tardiness or missed classes will be excused only for valid reasons.

Please refer to the Institute attendance policies here: <http://www.catalog.gatech.edu/rules/4/>, and contact me with any questions.

**Desk Presentations**: Students are expected to maintain a professional standard of presentation in their studios at their desks, such that any faculty or student could stop by at any time and easily understand or engage in the work-in-progress.

**Project Presentations**: Attendance at all project presentations is required. An unexcused absence to a project presentation will result in a 0 for all parts of the project that are evaluated on the missed day.

**Participation**:Attendance and participation is expected in class, field trips and scheduled meetings. Demonstration of independence, initiative and time management is also expected.

**Evaluation Criteria**:Projects will be evaluated on demonstrated understanding and relevance to assignment criteria, clarity of representation, attention to execution of design process, clarity of verbal presentation, and demonstration of commitment. Craft and quality of material submissions, and clarity of verbal and graphic presentations will also contribute to grade assessment.

**Grading:**

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| **Project** |  | **%** | **Description** |
| 1 | Wearable Project | 25% | Evaluation including:  Function  Application of Human Factors and Ergonomics principles  Craftsmanship  Aesthetics  Documentation  Presentation |
| 2 | Universal Design Project | 35% | Evaluation including:  Form  Research Methods  Usability Testing  Storyboard  Craftsmanship  Documentation  Presentation |
| 3 | Interactive Product: Interface Product Design | 40% | Evaluation including:  Task/Function analysis  Interface Design  Experience Design  Craftsmanship  Aesthetics  Documentation  Presentation |
|  | **Total** | **100%** |  |

**General Notes (policies and procedures):**

**Office Hours**

If you would like to meet with either instructor on a particular day, please meet us after class so that we can arrange a time for a meeting. You may also setup a meeting with the instructors We normally respond quickly, but please allow 24 hours for a response.

**T-Square**

The course will utilize T-Square (t-square.gatech.edu) for the distribution of class materials (such as lecture slides or supplemental readings), announcements, and for turning in class assignments.

**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.

**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.

**Student** **Academic 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.