

INSTRUCTOR

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PF2104 (by appointment)

INTRODUCTION

This course provides opportunities to explore the topic of *People and Technology* through product design.

This studio uses the term 'technology' in a broad manner. It can refer to any collection of tools, objects, devices, human built spaces and even ideas or concepts which facilitate the way in which people engage the physical world in the pursuit of daily life. Examples include (actual course content may differ):

- Consumer products (toothpaste, lawnmowers, or frozen dinners)
- Industrial products (airliners, road graders, or nuclear power plants)
- Institutions (hospitals, corporations, or restaurants)
- Services (Service providers like utilities, air traffic control systems, Internet service providers)
- Architecture (buildings, houses, interior space)
- Urban spaces and systems.

The course builds upon a tradition of industrial design, an area fundamentally concerned with technology, products and people. Using the practices and methods of industrial design, the course allows student to engage aspects of the philosophy of technology, the cultural implications of technology, the ergonomics and use of technology, the infrastructural, social and economic systems which support our development and use of technology. The course acknowledges the complex interrelation between these many systems and is intended to foster a broad comprehension of the technological complexities that punctuate our world, through design.

COURSE OBJECTIVES

- To gain an understanding of industrial design and product design.
- To gain an understanding of the human relationship to technology.
- To gain exposure to industrial design processes and methodologies, such as the design brief.
- To gain exposure to manufacturing materials and technologies.
- To gain exposure to aspects of ergonomics and human factors.
- To gain experience in undertaking an extensive product design exercise.

TEACHING APPROACH

The course will use a combination of lectures, guest lectures (as available), assignments, and studio exercises to cover the topic areas listed in the course objectives. Initial lectures will introduce broad topics of industrial design, industrial design itself and the philosophy of technology. Subsequent lectures and sessions will hone in on other attending aspects of industrial design.

COURSE CONTENT (note: subject to change, depending upon availability of guest lecturers)

| | |
|---------------------|--|
| week 1 | Course Outline, introduction to ID, philosophy of technology |
| week 2 | technology as infrastructure/EVENTS exercise due |
| week 3 | introduction to ergonomics |
| week 4 | lecture on mapping and info graphics/Task Analysis due |
| week 5 | User Profile due/charrette |
| week 6 (Feb 17, 19) | BLOCK WEEK |

PRODUCT DESIGN (People and Technology)
COURSE OUTLINE

EVDS 723.03 H(0-6)
WINTER 2015

| | |
|---------|--|
| week 1 | Course Outline, introduction to ID, philosophy of technology |
| week 7 | design brief/Technology Map Due |
| week 8 | design brief crits/Design Brief Due/ |
| week 9 | life cycle assessment/design concept generation |
| week 10 | manufacturing materials and processes/Interim Presentation 1 Due |
| week 11 | business plan lecture/ongoing design work & crits |
| week 12 | ongoing design work/Interim Presentation 2 Due |
| week 13 | ID legal and intellectual property/ongoing design work |
| week 15 | final design project presentation: April 18, 2014 |

CLASS SCHEDULE

Tuesday/Thursday 9:30am -12:20 in PF2140

MEANS OF EVALUATION

The means of evaluating student performance in the course is based exclusively upon the completion of project work (9 projects in total), as broken down below. There will be no final examination for the course.

| | |
|-----------------------------|-----|
| P1: EVENT: | 10% |
| P2: Task Analysis: | 10% |
| P3: User Profile: | 10% |
| P4: Technology Map: | 10% |
| P5: Design Brief: | 10% |
| P6: Charrette: | 5% |
| P7: Interim Presentation 1: | 10% |
| P8: Interim Presentation 2: | 10% |
| P9: Final Design: | 25% |

REQUIRED TEXTBOOK

The following text is required for the course and is available in the U of C Bookstore:

Cuffaro, Daniel F., et. al. The Industrial Design Reference & Specification Book, 2013. Rockport Publishers, ISBN: 978-1-59253-847-8.

SUGGESTED READINGS

A number of references address both design and the development of technology in our world:

Boradkar, Prasad. Designing Things: A Critical Introduction to the Culture of Objects, 2010. Berg Press, ISBN: 978-1-84520-427-3.

Dunne, Anthony. Hertzian Tales: Electronic Products, Aesthetic Experience, and Critical Design, 2005. The MIT Press, ISBN:0-262-04232-0.

Hannington, Bruce and Martin, Bella. Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions, 2012. Rockport Publishers, ISBN: 978-1592537563.

Hawken, Paul, et. al. Natural Capitalism: Creating The Next Industrial Revolution, 2008. Back Bay Books, ISBN:978-0316353007.

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Ihde, Don. Philosophy of Technology: An Introduction, 1998. Paragon Issues in Philosophy, ISBN: 978-1557782731.

Marcus, Greil. Lipstick Traces: A Secret History of the Twentieth Century, 1990. Harvard University Press, ISBN: 978-0674535817.

Thackara, John. In the Bubble: Designing in a Complex World, 2005. MIT Press, ISBN: 0-262-20157-7.

Walker, Stuart. Designing Sustainability: Making Radical Changes in a Material World, 2014. Routledge ISBN: 978-0415744126.

GRADING SCALE

Final grades will be reported as letter grades, with the final grade calculated according to the 4-point range.

| Grade | Grade Point Value | 4-Point Range | Percent | Description |
|-------|-------------------|---------------|----------|---|
| A+ | 4.00 | 4.00 | 95-100 | Outstanding - evaluated by instructor |
| A | 4.00 | 3.85-4.00 | 90-94.99 | Excellent - superior performance showing comprehensive understanding of the subject matter |
| A- | 3.70 | 3.50-3.84 | 85-89.99 | Very good performance |
| B+ | 3.30 | 3.15-3.49 | 80-84.99 | Good performance |
| B | 3.00 | 2.85-3.14 | 75-79.99 | Satisfactory performance |
| B- | 2.70 | 2.50-2.84 | 70-74.99 | Minimum pass for students in the Faculty of Graduate Studies |
| C+ | 2.30 | 2.15-2.49 | 65-69.99 | All final grades below B- are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements. |
| C | 2.00 | 1.85-2.14 | 60-64.99 | |
| C- | 1.70 | 1.50-1.84 | 55-59.99 | |
| D+ | 1.30 | 1.15-1.49 | 50-54.99 | |
| D | 1.00 | 0.50-1.14 | 45-49.99 | |
| F | 0.00 | 0-0.49 | 0-44.99 | |

Notes:

- A student who receives a "C+" or lower in any one course will be required to withdraw regardless of their grade point average (GPA) unless the program recommends otherwise. If the program permits the student to retake a failed course, the second grade will replace the initial grade in the calculation of the GPA, and both grades will appear on the transcript.

SPECIAL BUDGETARY REQUIREMENTS

There will be design projects assigned as part of the course and as such, students will be required to prepare pin-up presentations and construct design models, incurring the costs associated with these activities.

Notes:

1. Written work, term assignments and other course related work may only be submitted by e-mail if prior permission to do so has been obtained from the course instructor. Submissions must come from an official University of Calgary (ucalgary) email account.
2. Academic Accommodations. The Academic Accommodations Policy can be found at: <http://www.ucalgary.ca/access/accommodations/policy>. It is the students' responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodations and have not registered with Student Accessibility Services, please contact them at 403.220.6019. Students who have not registered with Student Accessibility Services are not eligible for formal academic accommodations. More information about academic accommodations can be found at www.ucalgary.ca/access. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.
3. Plagiarism - Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Most commonly plagiarism exists when:(a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test),(b) parts of the work are taken from another source without reference to the original author,(c) the whole work (e.g., an essay) is copied from another source, and/or,(d) a student submits or presents work in one course which has also been submitted in another course(although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved. While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism is an extremely serious academic offence. It is recognized that clause (d) does not prevent a graduate student incorporating work previously done by him or her in a thesis. Any suspicion of plagiarism will be reported to the Dean, and dealt with as per the regulations in the University of Calgary Graduate Calendar.
4. Information regarding the Freedom of Information and Protection of Privacy Act (<http://www.ucalgary.ca/secretariat/privacy>) and how this impacts the receipt and delivery of course material.
5. Emergency Evacuation/Assembly Points (<http://www.ucalgary.ca/emergencyplan/assemblypoints>)
6. Safewalk information (<http://www.ucalgary.ca/security/safewalk>)
7. Contact Info for: Student Union (<http://www.su.ucalgary.ca/page/affordability-accessibility/contact>); Graduate Student representative(<http://www.ucalgary.ca/gsa/>) and Student Ombudsman's Office (<http://www.su.ucalgary.ca/page/quality-education/academic-services/student-rights>).