

**University of Waterloo**  
**Stratford Campus**  
**DEI 613**  
**Digital Media Design Solutions 1:**  
**Design Principles and Practice**  
**Fall 2017**  
**Tuesdays 4 - 6:50 pm, DMS 2129**

### **Instructor Information**

Instructor: Professor Jessica Thompson, MFA  
Office: DMS 2006  
Office Hours: Tuesdays, 2 – 3:30 pm, or by appointment  
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Slack: <https://dei6132017.slack.com/>

### **Course Description**

In this course, students will explore the principles of digital designs in terms of their visual design components and the functions they perform in various forms of digital content production. Students will receive hands-on training by engaging in a complete production cycle from conceptualization, through to production and post-production. To situate their practices within the wider social, cultural and economic contexts of digital design, students will also learn an explicit theoretical vocabulary for exploring, explaining, critiquing, and evaluating their design practices.

### **Course Goals and Learning Outcomes**

This course is designed as a hybrid seminar/studio that uses design thinking as a methodology for creative, human-centered problem solving. The course is organized to support the following objectives:

- The production of *innovative solutions* to design challenges using a variety of physical and digital prototyping materials;
- The use of *creative problem solving* to overcome formal, technical and logistical challenges at various states of the design process;
- The development of *human-centered solutions* that address the needs, desires and abilities of different audiences;
- The use of exploratory research, and *playful discovery* as a tool for learning, exploration, and problem solving.

Upon completion of this course, students should be able to:

- Engage in design thinking as a mode of creative practice.
- Use a variety of qualitative and quantitative observation methods to generate insights
- Develop low and high fidelity prototypes to explore ideas, gather information and test limits
- Design user tests to gather information, validate design decisions, generate insights and capture feedback, and assess, evaluate and integrate user feedback into the design process

- Develop or improve *technical proficiency* in visual communication using standard and emerging software
- Develop physical and digital outputs to clearly and vividly communicate concepts, background and solutions, integrating best practices

### Required Texts

- Hanington, Bruce, and Bella Martin. *Universal Methods of Design: 100 Ways to research complex problems, develop innovative ideas, and design effective solutions*. Beverly, MA: Rockport, 2012. Hardcover and paperback editions available through the University Bookstore, Amazon (\$35) Digital Edition available through the UWaterloo Library Electronic Resources (free).
- Additional content (Peer-Reviewed articles, Video content, Case studies) will be available on LEARN

### Other Useful Texts

The following books are not required, but may be useful for students who are new to design:

- Buxton, Bill. *Sketching user experiences: getting the design right and the right design*. Amsterdam: Elsevier/Morgan Kaufmann, 2007.
- Dunne, Anthony, and Fiona Raby. *Speculative everything: design, fiction, and social dreaming*. Cambridge, Mass.: MIT Press, 2013.
- Eyal, Nir, and Ryan Hoover. *Hooked how to build habit-forming products*. Princeton, NJ: Princeton University Press, 2014.
- Knapp, Jake, John Zeratsky, and Braden Kowitz. *Sprint: how to solve big problems and test new ideas in just five days*. New York: Simon & Schuster, 2016.
- Krug, Steve. *Don't make me think!: a common sense approach to web usability*. Pearson Education India, 2000.
- Lidwell, William, Kritina Holden, and Jill Butler. *Universal Principles of Design*. Beverly, MA: Rockport Publishers, 2010. [or Pocket edition, 2015]
- Lupton, Ellen. *Thinking with type: a critical guide for designers, writers, editors, & students*. New York: Princeton Architectural Press, 2010.
- Lupton, Ellen, and Jennifer Cole Phillips. *Graphic design: the new basics*. New York: Princeton Architectural Press, 2015.
- Norman, Donald *Emotional design: why we love (or hate) everyday things*. New York, NY: Basic Books, 2005.

### Course Requirements and Assessment

Short descriptions are provided below -- detailed descriptions and due dates will be posted on LEARN.

#### A1 Applied Observation (25%)

Select a public space in Stratford and spend a minimum of four hours observing citizen activity in the space. Drawing from the observation methodologies discussed in the first section of this course, document the activity and design a detailed infographic to clearly and vividly communicate your findings.

Using your *Infographic* as a starting point, develop a *Design Brief* to communicate the broader insights developed from your observation. Produced as a multi-page printed brochure, your brief will contain a combination of standard elements (background, context, motivation) and contextual elements that are specific to your particular set of observations, and your preferences as a designer.

Software: Adobe Illustrator (primary), and InDesign (secondary/optional)  
 Format: Multi-page Brochure (printed and finished), 72 ppi Reference PDF

## A2 Prototyping the Future (25%)

In this assignment, we will design and prototype solutions for a future challenge area. Using Speculative design as a mode of inquiry, and your *Design Brief* as a starting point, you will shift your scenarios into the ‘near future’. Then, working in collaboration with others in class, you will design, prototype and test two human-centered solutions, one using physical materials and one using digital materials.

Software: Adobe XD; Google Sketchup; Adobe Premiere  
 Materials: Creative Toolkit, prototyping materials  
 Format: Short format video

## A3 Design Challenge (30%)

For this final assignment we will leverage your observations and research and prototypes to create a future design solution for the City of Stratford. Further details will be provided.

## A5 Participation (20%)

In this course, participation is an active process that combines preparation for class, engagement in classroom activities, intellectual and creative contributions to design collaborations and the development of productive, collegial relationships with others. Preparation for class includes arriving with readings and interim assignment deliverables complete. Engagement within the classroom includes contributing to the classroom environment by asking questions and sharing insights, and participating in in-class activities, ‘design sprints’, exploratory exercises, and peer review. You will periodically be required to share insights, observations, and reflections on our Discussion boards in LEARN.

## Course Outline

While we will make every effort to follow the schedule as outlined here, it is subject to change. Readings indicated are numbered methods from the required text. For a full list of required readings, please consult the Reading Schedule on LEARN.

Week	Date	Topics	Due Dates
1	September 12	Observation, Unobtrusive Measures, Behavioural Mapping	Please see weekly Reading schedule in official syllabus
2	September 19	Information Design, Design Frameworks	

3	September 26	Human-Centered Design, Personas, Affinity Diagrams, Scenarios	
4	October 3	Speculative Design, Problem Definition	
5	October 12 *	TBC	
6	October 17	Prototyping Objects, Emotional Design, Affordances, Feedback	<i>A1 Applied Observation</i>
7	October 24	Experience Prototyping, Interface Design, Evaluative Methods	
8	October 31	Usability Testing Lab	
9	November 7	A3 Studio	<i>A2 Prototyping the Future</i>
10	November 14	A3 Studio	
11	November 21	A3 Studio	
12	November 28		<i>A3 Design Challenge</i>

### **Late Work**

All assignments are due as per the deadlines indicated on LEARN. Late assignments are subject to 5% (per day) penalty, including weekends, which will be deducted from the final grade received on the assignment. If a student is unable to submit an assignment on time due to extenuating circumstances, appropriate documentation must be provided.

### **Attendance Policy**

Students are expected to attend all classes, however an absence may be excused in circumstances such as illness or emergency. Any request for an excused absence must be accompanied by appropriate documentation. Please also review UW's Policy on [Accommodation Due to Illness](#).

### **Instructor Contact**

I am available to answer questions outside of class. Please post questions and information that will benefit others to Slack. Otherwise, please visit during office hours, or send an email with 'DEI 613' in the subject line so I can find your question quickly. Please allow 24-48 hours for a response. Messages received in the evenings and over weekends will be returned the next business day.

### **Equipment Loans**

As an MDEI student, you are able to borrow all of the equipment that we have on campus. Please review and sign our [Equipment Loan Agreement](#) at the start of every semester.

### **Materials**

In this course, we will use a wide variety of ideation and prototyping materials. Over the course of the semester, students will assemble a Creative Toolkit (see Martin and Harrington, 21) to use during class.

## Software Labs

The DEI 613 software labs (Tuesdays 2 - 3:50 pm) are designed to provide students with the opportunity to learn new skills and software required for the delivery of coursework, and to work on deliverables for 613 with the support of the Digital Media Instructor. For part-time students unable to attend due to work schedules, the Lab instructor, Annaka Willemsen will offer one-on-one meetings at a time convenient for all. A schedule of topics will be posted on the Lab section of LEARN.

## Workload

This course involves 3 hours of class time and 2 hours of lab time per week. Students can expect to spend up to 5 additional hours per week preparing for class and working on course deliverables.

## Academic Integrity

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. See the [UWaterloo Academic Integrity webpage](#) and the [Arts Academic Integrity webpage](#) for more information.

## Plagiarism & Copyright Policy

The offence of plagiarism as defined by Policy 71 (Student Discipline) includes visual and aural plagiarism of creative work (drawings, photographs, graphics, video, sound, graphics, or creative ideas conceived of or made by others). The rules of conduct that apply to text-based work at the University of Waterloo also apply to work completed for creative assignments and research. There are two issues to consider with visual and aural plagiarism: ethics, i.e. expectations related to academic integrity as outlined in Policy 71; and copyright infringement, for which you could also be legally liable. Plagiarism and copyright infringement occur when you produce creative material that is substantially similar to the original source. Please take note of the following points:

- All work submitted for evaluation must be your own. If the submitted work is determined not to be your own, has been created by another on your behalf, or has been created for another context (i.e. another course, client work, etc.), the Academic Discipline Procedure of Policy 71 will be invoked.
- *Design templates, software plug-ins, icon sets, stock images, and other generative software may only be used with the expressed permission of the instructor.*
- Any original material used as the basis for any work you create – whether manipulated digitally or manually, or otherwise incorporated or appropriated for your work as part of a conceptual idea – must be cited, either within the project, or as an Appendix.
- Resources available in the public domain are identified as copyright free or that fall under licenses from Creative Commons. Public domain is a term used for works that are not protected by copyright law. Works identified as Creative Commons allow varying degrees of use. In this case, the authors decide how you can use their content. For more information, see the guidelines on [creativecommons.org](https://creativecommons.org).

## Discipline

A student is expected to know what constitutes academic integrity, to avoid committing academic offences, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about “rules” for group work/collaboration should seek guidance from the course professor,

academic advisor, or the Undergraduate Associate Dean. When misconduct has been found to have occurred, disciplinary penalties will be imposed under Policy 71 – Student Discipline. For information on categories of offenses and types of penalties, students should refer to [Policy 71 - Student Discipline](#). For typical penalties check [Guidelines for the Assessment of Penalties](#).

### **Grievance**

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70 - Student Petitions and Grievances](#), Section 4. When in doubt, please be certain to contact your department's administrative assistant who will provide further assistance.

### **Appeals**

A decision made or penalty imposed under Policy 70, Student Petitions and Grievances (other than a petition) or Policy 71, Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to [Policy 72, Student Appeals](#) (<https://uwaterloo.ca/secretariat-general-counsel/policies-procedures-guidelines/policy-72>).

### **Note for Students with Disabilities**

The [AccessAbility Services](#) office, located on the first floor of the Needles Hall extension (NH 1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.