

**School of Information Management
INFO 6630.01 User Experience
Fall 2021**

Course Type: Online-SYNCHRONOUS SESSION

Cross-list(s): BUSI 6525

Instructor: Dr. Ryan Deschamps

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Preferred method of contact: Email or Slack. Replies should occur within 24 hours

Office hours: Tuesday 3:00-5:00 online, or by request.

Course website: Brightspace

Tutorials: N/A

Teaching Assistant(s) name/contact info: N/A

COURSE DESCRIPTION

Understanding theories and practices of human-computer interaction is a key determinant of organizational success. User experience (UX) is a keystone to understanding what makes a product, service or physical space relevant to people, whether for the purpose of selling a product, offering a program or improving a public service. This course explores how technology interrelates to human use and the process from conception of an idea to design and evaluation. We will focus on UX for mobile devices, but also explore applications for websites, public spaces such as information commons, embedded devices and information systems, including those that apply modern Artificial Intelligence and Machine Learning. The course discusses individual and group information behaviours in government and corporate contexts, and the theories and models of information behaviour that contribute to a nuanced understanding of the user experience.

COURSE PRE-REQUISITES

None.

LEARNING OUTCOMES

Upon completion of the course, students are expected to have gained basic knowledge or proficiency in the following areas:

- Apply design process and design thinking to product development
- Gain a deep understanding of the factors that influence user experience
- Evaluate the user experience of information systems and services
- Apply rapid prototyping to create user interfaces
- Understand theories and models of information behavior

TECHNOLOGY REQUIREMENTS

The Brightspace online platform (course documents, discussion board and live classes) will be used for all interactions. Most lectures will be pre-recorded, but a few will be live. Zoom may be used for live classroom sessions or office hours where applicable.

A Slack Channel will be provided to facilitate collaboration among students and the instructor.

DESCRIPTION OF CLASS FORMAT

Instruction will include a collection of weekly online lectures (totalling 1-hour to 1-hour and 30 minutes in length), group and individual work and class and forum discussion. Assigned readings help students prepare for and engage in discussion of concepts and ideas presented in lectures. Each Monday, an announcement will provide an outline for the week with links to major resources for the week. The synchronous element of the course is optional will be used as an opportunity to ask questions or dive deeper into concepts.

Pedagogical Statement: To the extent that is possible in an online environment, lectures will be interactive and exploratory. We will make (mostly digital) messes in this course, because figuring out how to fix messes is a great way to learn both the content and implications of design in this course.

LEARNING MATERIALS

Required textbook:

Johnson, J. (2014). *Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Guidelines* (2nd Ed.). Morgan Kaufmann: Burlington MA. ISBN 978-0-12-407914-4.

Recommended:

The following are reference items that could offer useful tips for a career in User Experience Design or Research.

Lidwell, W., Holden, K and Butler, J. 2010. *Universal Principles of Design, Revised and Updated: 125 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make Better Design Decisions and Teach through Design*. Rockport Publishers: Beverly, MA. ISBN 978-1592535873 **OR**

Lidwell, W. 2015. *The Pocket Universal Principles of Design*. Rockport Publishers / Quarto Books: Beverly, MA. ISBN 9781631590405.

Additional required readings listed below will be available via Brightspace or Dalhousie Libraries.

METHODS OF EVALUATION

Detailed instructions regarding each assignment will be provided. Assessment of all assignments is directly related to attention to the instructions, clarity of expression and presentation, and evidence of significant analysis and reflection.

See also the [SIM Grading Policy](#).

COMPONENT	DETAILS	DUE DATE	VALUE
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Participation	See below	N/A	15%
Assignment #1 Part A Low-fidelity sketch and description	Use the first four parts of the design process to produce an early prototype of a mobile application.	September 29, 2020	15%
Assignment #1 Part B (Medium-fidelity sketch and description)	Improve on original design using iteration, informal feedback and instructor suggestions. Provide medium-fi prototype and prototype objectives to testing group.	October 27, 2020	15%
Assignment #1 Part C (Usability Testing Plan and Results)	Based on objectives provided by developers, conduct paper prototype testing of the application and provide recommendations based on results.	November 17, 2020	25%
Assignment #2	User experience research paper. Provide a research study of a User Experience topic of interest to you.	December 8, 2020	30%

Participation Mark (15%):

While interface and other design documents are often developed by individuals, the process itself requires significant scrutiny from peers, stakeholders and most of all, users. While assignments will be completed by you individually, you will be asked to pair up with one other student so that you can receive informal feedback from at least one other person.

You will also be asked to provide short reactions to the readings and theme of two (2) separate weeks. The goal of these reactions is to engage the class in a discussion. You may offer an example, a challenge, a refutation or any response you wish. The existence of these two posts, attendance and consistent replies to other student responses will incorporate two-thirds of the participation mark. The other third will be based on an evaluation of the relevance, creativity and the level of engagement of discussion points.

INTEGRATION OF [MI Competencies](#)

PROGRAM COMPETENCY	COURSE LEARNING OUTCOME	COURSE ASSESSMENT
Information Management Leadership	<ul style="list-style-type: none"> Apply design process and design thinking to product development Understand theories and models of information behavior 	<ul style="list-style-type: none"> Participation Medium-Fi Prototyping
User-centred Information Services	<ul style="list-style-type: none"> Apply design process and design thinking to product development Gain a deep understanding of the factors that influence user experience Evaluate the user experience of information systems and services 	<ul style="list-style-type: none"> Low-fi prototyping Medium-fi prototyping Prototype testing
Management of Information Technology	<ul style="list-style-type: none"> Evaluate the user experience of information systems and services 	<ul style="list-style-type: none"> Prototype testing
Research and Evaluation	<ul style="list-style-type: none"> Evaluate the user experience of information systems and services 	<ul style="list-style-type: none"> Prototype testing
Risk Management	<ul style="list-style-type: none"> Evaluate the user experience of information systems and services Apply rapid prototyping to create user interfaces 	
Change Management	<ul style="list-style-type: none"> Apply design process and design thinking to product development 	
Workplace Skills & Attributes:	<ul style="list-style-type: none"> Apply rapid prototyping to create user interfaces 	
Collaborate & communicate		
Organize, Plan & Manage		

Develop Personally & Professionally	<ul style="list-style-type: none"> Understand theories and models of information behavior 	
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CLASS POLICIES

Attendance

Brightspace provides analytics information of the interactions that students have with various resources including required readings and logins to the system. This data will be applied to the participation levels of the course.

Citation Style

SIM courses use APA as the default standard citation style; however, any standard style of citation is acceptable for the written portions of this course. Students should assess the appropriateness of the citation style to the purpose of the assignment.

Late penalties for assignments

A penalty for late assignments will be assessed, unless prior permission has been given by the instructor to submit an assignment late, which normally will be for extended illness, medical, or family emergencies only (see below). Late submissions will be assessed a penalty of five percent per day, including weekends. Assignments will not normally be accepted seven days or more after the due date; in such cases the student will receive a grade of zero.

Missed or Late Academic Requirements due to Student Absence:

Dalhousie University recognizes that students may experience short-term physical or mental health conditions, or other extenuating circumstances that may affect their ability to attend required classes, tests, exams or submit other coursework.

Dalhousie students are asked to take responsibility for their own short-term absences (3 days or less) by contacting their instructor by phone or email prior to the academic requirement deadline or scheduled time **AND** by submitting a completed [Student Declaration of Absence form](#) to their instructor in case of missed or late academic requirements. Only 2 separate Student Declaration of Absence forms may be submitted per course during a term.

SIM GRADING POLICY

A+	90-100	Demonstrates original work of distinction.
A	85-89	Demonstrates high-level command of the subject matter and an ability for critical analysis.
A-	80-84	Demonstrates above-average command of the subject matter.
B+	77-79	Demonstrates average command of the subject matter.
B	73-76	Demonstrates acceptable command of the subject matter.
B-	70-72	Demonstrates minimally acceptable command of the subject matter.
F	<70	Unacceptable for credit towards a Master's degree.

ACCOMMODATION POLICY FOR STUDENTS

The Student Accessibility Centre is Dalhousie's centre of expertise for student accessibility and accommodation. The advising team works with students on the Halifax campus who request accommodation as a result of: a disability, religious obligation, or any barrier related to any other characteristic protected under Human Rights legislation (NS, NB, PEI, NFLD). If there are aspects of the design, instruction, and/or experiences within this course that result in barriers to your inclusion please contact the Student Accessibility Centre. Please visit www.dal.ca/access for more information and to obtain the Request for Accommodation form.

A note taker may be required as part of a student's accommodation. Visit https://www.dal.ca/campus_life/academic-support/accessibility/accommodations-/classroom-accommodation.html for more details.

Please note that your classroom may contain accessible furniture and equipment. It is important that these items remain in the classroom, undisturbed, so that students who require their use will be able to fully participate.

ACADEMIC INTEGRITY

At Dalhousie University, we are guided in all of our work by the values of academic integrity: honesty, trust, fairness, responsibility and respect. As a student, you are required to demonstrate these values in all of the work you do. The University provides [policies and procedures](#) that every member of the university community is required to follow to ensure academic integrity.

The commitment of the Faculty of Management is to graduate future leaders of business, government and civil society who manage with integrity and get things done. This is non-negotiable in our community and it starts with your first class at Dalhousie University. So when you submit any work for evaluation in this course or any other, please ensure that you are familiar with your obligations under the Faculty of Management's Academic Integrity Policies and that you understand where to go for help and advice in living up to our standards. You should be familiar with the [Faculty of Management Professor and Student Contract on Academic Integrity](#), and it is your responsibility to ask questions if there is anything you do not understand.

Dalhousie offers many ways to learn about academic writing and presentations so that all members of the University community may acknowledge the intellectual property of others. Knowing how to find, evaluate, select, synthesize and cite information for use in assignments is called being "information literate." Information literacy is taught by Dalhousie University Librarians in classes and through Dalhousie Libraries' online [Citing & Writing](#) tutorials.

Do not plagiarize any materials for this course. For further guidance on what constitutes plagiarism, how to avoid it, and proper methods for attributing sources, please consult the University Secretariat's [Academic Integrity](#) page.

Please note that Dalhousie subscribes to plagiarism detection software that checks for originality in submitted papers. Any paper submitted by a student at Dalhousie University may be checked for originality to confirm that the student has not plagiarized from other sources. Plagiarism is considered a very serious academic offence that may lead to loss of credit, suspension or expulsion from the University, or even the revocation of a degree. It is essential that there be correct attribution of authorities from which facts and opinions have been derived. At Dalhousie, there are University Regulations which deal with plagiarism and, prior to

submitting any paper in a course; students should read the [Policy on Academic Dishonesty](#) contained in the Calendar.

Furthermore, the University's Senate has affirmed the right of any instructor to require that student assignments be submitted in both written and computer readable format, e.g.: a text file or as an email attachment, and to submit any paper to a check such as that performed by the plagiarism detection software. As a student in this class, you are to keep an electronic copy of any paper you submit, and the course instructor may require you to submit that electronic copy on demand. Use of third-party originality checking software does not preclude instructor use of alternate means to identify lapses in originality and attribution. The result of such assessment may be used as evidence in any disciplinary action taken by the Senate.

Finally:

If you suspect cheating by colleagues or lapses in standards by a professor, you may use the confidential email: ManagementIntegrity@dal.ca which is read only by the Assistant Academic Integrity Officer.

Faculty of Management clarification on plagiarism versus collaboration:

There are many forms of plagiarism, for instance, copying on exams and assignments. There is a clear line between group work on assignments when explicitly authorised by the professor and copying solutions from others. It is permissible to work on assignments with your friends but only when the professor gives you permission in the specific context of the assignment. University rules clearly stipulate that all assignments should be undertaken individually unless specifically authorised.

Specific examples of plagiarism include, but are not limited to, the following:

- Copying a computer file from another student, and using it as a template for your own solution
- Copying text written by another student
- Submitting the work of someone else, including that of a tutor as your own

An example of acceptable collaboration includes the following:

- When authorised by the professor, discussing the issues and underlying factors of a case with fellow students, and then each of the students writing up their submissions individually, from start to finish.

UNIVERSITY STATEMENTS

This course is governed by the academic rules and regulations set forth in the [University Calendar](#) and the Senate.

ACCESSIBILITY

The Advising and Access Centre serves as Dalhousie's Centre for expertise on student accessibility and accommodation. Our work is governed by Dalhousie's Student Accommodation Policy, to best support the needs of Dalhousie students. Our teams work with students who request accommodation as a result of: disability, religious obligation, an experienced barrier related to any other characteristic protected under Canadian Human Rights legislation.

STUDENT CODE OF CONDUCT

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student

Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner—perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution.

DIVERSITY AND INCLUSION

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. Dalhousie is strengthened in our diversity and dedicated to achieving equity. We are committed to being a respectful and inclusive community where everyone feels welcome and supported, which is why our university prioritizes fostering a culture of diversity and inclusiveness.

RECOGNITION OF MI'KMAQ TERRITORY

Dalhousie University is located in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq. We are all Treaty people. For more information about the purpose of territorial acknowledgements, or information about alternative territorial acknowledgements if your class is offered outside of Nova Scotia, please visit <https://native-land.ca/>.

The Elders in Residence program provides students with access to First Nations elders for guidance, counsel and support. Visit the office in the McCain Building (room 3037) or contact the programs at elders@dal.ca or 902-494-6803 (leave a message).

FAIR DEALING POLICY

The Dalhousie University Fair Dealing Policy provides guidance for the limited use of copyright protected material without the risk of infringement and without having to seek the permission of copyright owners. It is intended to provide a balance between the rights of creators and the rights of users at Dalhousie.

COURSE SCHEDULE

Date of Class	Topics & Assignments	Required Readings
Sep 7 - Sep 14	What is User Experience? Introduction to the Design Process	<ul style="list-style-type: none">• Kolko, J. (2015, September). Design thinking comes of age. <i>Harvard Business Review</i>, 93(9), 66-71.• White, P. J., Marston, H. R., Shore, L., & Turner, R. (2020). Learning from COVID-19: Design, Age-friendly Technology, Hacking and Mental Models. <i>Emerald Open Research</i>, 2(21), 21.
Sep 13 – Sep 21	User design basics Gestalt principles and other “heuristics” Visual structure Low-fi prototyping	<ul style="list-style-type: none">• Explore the usability.gov website. In particular, read the “User Research Basics” page, http://www.usability.gov/what-and-why/user-research.html as well as the “Personas” and “Scenarios” pages that link from that page.

		<ul style="list-style-type: none"> Chapter 1.1 – 1.2 (pp. 2-5), UX for Beginners: A Crash Course in 100 Short Lessons by Joel Marsh Busche, L. (2014, October 6). The skeptic's guide to low-fidelity prototyping. https://www.usability.gov/how-to-and-tools/methods/prototyping.html
Sep 20 – Sep 28	<p>Perception bias</p> <p>Color, peripheral vision, reading</p> <p>Assignment #1a (Low-FI Prototype) due October 1</p>	<ul style="list-style-type: none"> Textbook (pp. 1-36). Chapter 1 (“Our perception is biased”), Chapter 2 (“Our vision is optimized to see structure”), Chapter 3 (“We seek and use visual structure”) Explore the usability.gov website. In particular, read the “Prototyping” page.
Sep 27 – Oct 5	Attention and memory	<ul style="list-style-type: none"> Textbook (pp. 87-129). Chapter 7 (“Our attention is limited; Our memory is imperfect”), Chapter 8 (“Limits on attention shape our thought and action”), and Chapter 9 (“Recognition is easy; recall is hard”) Davis, N. (2011). Information overload, reloaded. Bulletin of the American Society for Information Science and Technology, 37(5), 45-49.
Oct 4 – Oct 12	<p>Learning and decision-making</p> <p>Inclusion in the design process</p>	<ul style="list-style-type: none"> Textbook (pp. 131-185). Chapter 10 (“Learning from experience and performing learned actions are easy; Novel actions, problem solving, and calculation are hard”), Chapter 11 (“Many factors affect learning”), Chapter 12 (“Human decision making is rarely rational”)
Oct 11 – Oct 19	<p>Overview of evaluation methods;</p> <p>heuristic evaluation</p>	<ul style="list-style-type: none"> Textbook (pp. 219-222). Appendix (“Well-known user-interface design rules”) Shneiderman, B. & Plaisant, C. (2010). Chapter 4: Evaluating interface designs. Designing the User Interface: Strategies for Effective Human-Computer Interaction. 5th Ed., Montreal: Addison-Wesley, pp. 132-170.
Oct 18 – Oct 26	<p>Models of Information Behavior</p> <p>Search</p>	<ul style="list-style-type: none"> Wang, P. (2011). Information behavior and seeking. In I. Ruthven & D. Kelly (Eds.), Interactive Information Seeking,

	Assignment 1b Medium-fi prototype due October 29th	<p>Behaviour and Retrieval (pp. 15-41). London: Facet Publishing.</p> <ul style="list-style-type: none"> On the https://www.nngroup.com/ website, read the article by Page Laubheimer (2016, March 13), “7 Ways to improve your website’s or intranet’s built-in search engine.”
Oct 25 – Nov 2	<p>User research planning</p> <p>Recruitment of subjects</p> <p>Ethical considerations..</p>	<ul style="list-style-type: none"> Grimes, S.M., Fleischman, K.R., and Jaeger, P.T. (2009). Virtual guinea pigs: ethical implications of human subjects research in virtual worlds. <i>International Journal of Internet Research Ethics</i> 2(1): 38-56. Retrieved from http://ijire.net/issue_2.1/grimes.pdf Explore the usability.gov website. In particular, read the “Planning a usability study” and “Recruiting usability test participants” pages.
Nov 1 – Nov 9	<p>User research methods;</p> <p>Reporting.</p>	<ul style="list-style-type: none"> Mifsud, J. (2016). Usability testing of mobile applications: A step-by-step guide. Retrieved from http://usabilitygeek.com/usability-testing-mobile-applications/ On the https://www.nngroup.com/ website, read the article by Christian Rohrer (2014, October 12), “When to use which user-experience research methods.” Smith, M.A., Monfort, S.S., & Blumberg, E.J. (2015). Improving voter experience through user testing and iterative design. <i>Journal of Usability Studies</i>, 10(4), pp. 116-128. Retrieved from: http://uxpajournal.org/voter-experience-user-testing-iterative-design/
November 8-12	FALL STUDY BREAK NO CLASS	
Nov 15 – Nov 23	<p>Movement</p> <p>Accessibility</p> <p>Time</p> <p>Sound</p> <p>Assignment (Usability testing of another group) 1c due</p>	<ul style="list-style-type: none"> Textbook (pp. 187-216). Chapter 13 (“Our hand-eye coordination follows laws”) and Chapter 14 (“We have time requirements”) Renel, W. 2019. [Re]Mixing Space: Charting Sonic Accessibility and Social Equity in Creative Urban Contexts, <i>Architecture and Culture</i>. 7:3. 419-436. Velloso, E., Schmidt, D., Alexander, J., Gellersen, H., & Bulling, A. (2015). The feet in human-computer interaction: A survey of foot-based interaction. <i>ACM Computing Surveys</i>, 48(2), 21:1-21:35.

<p>Nov 22 – November 30</p>	<p>Social UX</p> <p>Problematization of Design Thinking / Social Justice considerations</p>	<ul style="list-style-type: none"> • Amichai-Hamburger, Y., Gazit, T., Bar-Ilan, J., Perez, O., Aharony, N., Bronstein, N., & Dyne, T.S. (2016). Psychological factors behind the lack of participation in online discussions. <i>Computers in Human Behavior</i>, 55, Part A, pp. 268-277. • Lauren Williams (2019) The Co-Constitutive Nature of Neoliberalism, Design, and Racism, <i>Design and Culture</i>, 11:3, 301-321, DOI: 10.1080/17547075.2019.1656901
<p>November 30 – December 7</p>	<p>Designing for Privacy</p> <p>Systems-Level UX</p> <p>Assignment #2 (Research Paper) due</p>	<ul style="list-style-type: none"> • Seckler, M., Heinz, S., Forde, S., Tuch, A. N., & Opwis, K. (2015). Trust and distrust on the web: User experiences and website characteristics. <i>Computers in human behavior</i>, 45, 39-50. • Hornbæk, K., & Hertzum, M. (2017). Technology acceptance and user experience: A review of the experiential component in HCI. <i>ACM Transactions on Computer-Human Interaction (TOCHI)</i>, 24(5), 1-30.