



DEA 4700/6700 Applied Ergonomics Methods

Semester	2018—19 Spring
Credit	3 units for DEA 4700 4 units for DEA 6700
Lecture room	Kennedy Hall 213
Time	Mondays and Wednesdays 8:40—09:55
Course website	Cornell Canvas and http://mdtl.human.cornell.edu
Instructor	Jay Yoon, PhD
Instructor email	jy846@cornell.edu
Office	3427 Martha Van Rensselaer Hall
Office hour	Friday 09:00 and 11:00 by appointment
Teaching Assistant (TA)	Carlos Araujo de Aguiar
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Office	212 HEB - Human Ecology Building
Office hour	Friday 10:00 and 12:00 by appointment

COURSE DESCRIPTIONⁱ

This course focuses on the practices of ergonomics that make productsⁱⁱ more efficient, easier, more pleasurable, and happier to use, optimizing the quality of physical, cognitive, behavioral, and affective aspect of human-product relationships. The course covers a set of ergonomics methods and techniques, and their applications to the design and analysis of products, product-service-systems, and built-environments. Students will learn key concepts of ergonomics issues in relation to safety, productivity, functionality, and wellness in product use and develop an understanding of how the capabilities and (situated) constraints of human beings can be systematically considered in the development of products.

- Prerequisite: DEA 3510 Human Factors: Ergonomics, Anthropometrics, and Biomechanics

LEARNING OBJECTIVES

- To develop knowledge of the main concepts of ergonomics including human capabilities/limitations and how they would be incorporated into designed systems
- To develop the practical skills to identify, analyze, and solve ergonomics problems of designed systems

LEARNING OUTCOMES

On successful completion of the course, students should be able to demonstrate:

- Knowledge of ergonomics issues and relevant terminologies with respect to theories, processes, and practices.
- A repertoire of skills associated with ergonomics assessment methods and analytical techniques.
- An ability to select and deploy appropriate ergonomics methodologies and to articulate ergonomics issues qualitatively and quantitatively.
- An ability to analyze the unmet needs and expectations of users, formulate informed ergonomic solutions, and select appropriate resources for designing with the users in mind.

ⁱ The current version of the syllabus is subject to revision (last updated: December 12, 2018). Revisions will be announced and distributed via Cornell Canvas

ⁱⁱ 'Product' represents a continuum of different design solutions that encompass multiple manifestations and scales, e.g., user interface, interior, service, product, training program, and facility planning.



COURSE DELIVERY AND LEARNING MODES

The course delivery of DEA 4700/6700 consists of a combination of several education activities, including lectures, tutorials, fieldwork, in-class project work, student seminars, inter- and intra-group discussions, reflections, quizzes, and project presentations. These different types of learning activities will be coordinated and adjusted based on the topic and goal of each session (30 sessions in total) and the course progress. In addition to the regular sessions, two guest lectures will take place to complement the learning experience. The course contents are outlined in the section of course contents and schedule.

Apart from the sessions for presentations and guest lectures, each session includes two (or three) class readings that are crucial for students to get familiar with the session’s topic. The chosen reading materials are a curated compilation of topic-specific journal articles, book chapters, conference proceedings, web articles, and booklets. All students are expected to read the chosen reading materials, which will be distributed in a digital format via the course website.

Two group projects for DEA 4700 students (three projects for DEA 6700 students) will be conducted. Each project entails practices of (1) analyzing ergonomics issues associated with a particular design context by means of the learned design methods and tools and (2) generating design solutions that are to be conceptualized and tested through iterative prototyping. The ergonomics methods and tools covered in class will equip the students with the ability to plan, execute, and communicate their work. Generally speaking, the first, second, and third projects will focus on designing a comfortable product to use, a pleasurable product to use, and a new ergonomics design tool respectively. The details of the project setup are described in the section of assessment and grading.

A series of seminars will take place where the students delivers mini-lectures and stimulates peer learnings. The seminar topics will be assigned to project groups, each covering two topics. The topic allocation will follow as soon as the project groups are formed.

There is a total of four formative course reflections throughout the semester, through which the course delivery will be moderated and improved. Students will provide the instructor and teaching assistant with constructive feedback with respect to the appropriateness and effectiveness of the course topics, ways of the course delivery and the instructor’s support, teaching materials, team dynamics, time management, schedule, etc. The reflections will be facilitated in the form of an anonymous survey and open-discussion. Upon collection and analysis of the feedback, students will be informed of the results and the way forward.

COURSE CONTENTS AND SCHEDULEⁱⁱⁱ

#	Date	Topic	Reading
1	Jan 23	<ul style="list-style-type: none"> Course overview Introduction to project 1 	<ul style="list-style-type: none"> Punnett, L., Vossenas, P., Allread, W. G., & Sheikh, N. N. (2016). Work design and health for hospitality workers. In <i>Ergonomic workplace design for health, wellness, and productivity</i> (pp. 275–298). CRC Press.
Design for comfort (4 sessions)			
2	Jan 28	<ul style="list-style-type: none"> Introduction to design for comfort 	<ul style="list-style-type: none"> Clarkson, J. (2008). Human capability and product design. In P. Hekkert & H. N. J. Schifferstein (Eds.), <i>Product experience</i> (pp. 165–197). London: Elsevier. Vink, P., & De Looze, M. P. (2008). Crucial elements of designing for comfort. In P. Hekkert & H. N. J. Schifferstein (Eds.), <i>Product experience</i> (pp. 441–459). London: Elsevier.
3	Jan 30	<ul style="list-style-type: none"> Posture analysis methods 1 (Rapid Upper Limb Assessment) 	<ul style="list-style-type: none"> Middlesworth, M. (2017). A step-by-step guide: Rapid Upper Limb Assessment (RULA). Ergonomics Plus.

ⁱⁱⁱ The course contents are subject to alterations in the event of unforeseen circumstances. The up-to-date syllabus is available at Canvas and <http://mdtl.human.cornell.edu>



		<ul style="list-style-type: none"> Posture analysis methods 2 (Rapid Entire Body Assessment) 	<ul style="list-style-type: none"> Middlesworth, M. (2017). A step-by-step guide: Rapid Entire Body Assessment (REBA). <i>Ergonomics Plus</i>.
4	Feb 4	<ul style="list-style-type: none"> Human capability and product design Impairment simulation 1 	<ul style="list-style-type: none"> Clarkson, J. (2008). Human capability and product design. In P. Hekkert & H. N. J. Schifferstein (Eds.), <i>Product experience</i> (pp. 165–197). London: Elsevier.
5	Feb 6	<ul style="list-style-type: none"> Human capability and product design Impairment simulation 2 Institutional Review Board application guide 	<ul style="list-style-type: none"> Goodman, J., & Waller, S. (2007). Evaluation tools. In J. Clarkson, R. Coleman, I. Hosking, & S. Waller (Eds.), <i>Inclusive design toolkit</i> (pp. 3.42–3.63). Cambridge: Engineering Design Centre, University of Cambridge.
Design for ease of use (6 sessions)			
6	Feb 11	<ul style="list-style-type: none"> Introduction to design for ease of use Consultation for the Institutional Review Board applications 	<ul style="list-style-type: none"> Rubin, J., & Chisnell, D. (2008). What makes something usable? In <i>Handbook of usability engineering</i> (pp. 3–20). Indiana, US: Wiley. Norman, D. A. (2005). Human-centered design considered harmful. <i>Interactions</i>, 14–19.
7	Feb 13	<ul style="list-style-type: none"> Interim presentation of project 1 (4700 & 6700) Interim course reflection 	
8	Feb 18	<ul style="list-style-type: none"> Student seminar 1—Task and heuristic analysis 	<ul style="list-style-type: none"> Hollnagel, E. (2012). Task analysis: why, what, and how. In G. Salvendy (Ed.), <i>Handbook of human factors and ergonomics</i> (pp. 385–396). John Wiley & Sons. Nielsen, J. (1995). Heuristic Evaluation: How to conduct a heuristic evaluation. nngroup.com. Retrieved October 4, 2018, from https://goo.gl/b75EK5 Komninos, A. (2018). How to improve your UX designs with task analysis. <i>interaction-design.org</i>. Retrieved October 4, 2018, from https://goo.gl/iGeQtk
9	Feb 20	<ul style="list-style-type: none"> Student seminar 2—Self-reported metrics for usability evaluation Video prototyping 	<ul style="list-style-type: none"> Tullis, T., & Albert, W. (2013). Self-reported metrics. In <i>Measuring the user experience</i> (pp. 121–161). Elsevier. Tomitsch, M., & Wrigley, C. (2018). Video prototyping. In <i>Design. Think. Make. Break. Repeat</i> (pp. 134–135). Bis Publishers.
	Feb 25	February break	
10	Feb 27	<ul style="list-style-type: none"> Student seminar 3—Behavioral and physiological metrics for usability evaluation Eye tracking and related evaluation techniques 	<ul style="list-style-type: none"> Tullis, T., & Albert, W. (2013). Behavioral and physiological metrics. In <i>Measuring the user experience</i> (pp. 163–185). Elsevier. Tullis, T., & Albert, W. (2013). Measuring usability through biometrics. In <i>Measuring the user experience</i> (pp. 271–277). Elsevier.
11	Mar 4	<ul style="list-style-type: none"> Aesthetics in interactive products Quiz 1 	<ul style="list-style-type: none"> Marc Hassenzahl. (2008). Aesthetics in interactive products: Correlates and consequences of beauty. In P. Hekkert & H. N. J. Schifferstein (Eds.), <i>Product experience</i> (pp. 287–299). London: Elsevier.
Design for pleasure (6 sessions)			
12	Mar 6	<ul style="list-style-type: none"> Introduction to design for pleasure 	<ul style="list-style-type: none"> Desmet, P. M. A. (2008). Product emotion. In P. Hekkert & H. N. J. Schifferstein (Eds.), <i>Product experience</i> (pp. 379–397). London: Elsevier. Richins, M. L. (2008). Consumption emotions. In P. Hekkert & H. N. J. Schifferstein (Eds.), <i>Product experience</i> (pp. 399–418). London: Elsevier.
13	Mar 11	<ul style="list-style-type: none"> Final presentation of project 1 (4700 & 6700) Interim course reflection 	
14	Mar 13	Guest lecture 1: Beyond smartphone interactions	<ul style="list-style-type: none"> Laurans, G., Desmet, P. M. A., & Hekkert, P. (2012). Assessing emotion in human–product interaction: An overview of available methods and a new approach. <i>International Journal of Product Development</i>, 16(3), 225–242.
15	Mar 18	<ul style="list-style-type: none"> Probing user emotions 1 (self-report) Introduction to project 2 Submission of project 1 deliverables 	<ul style="list-style-type: none"> Cardello, A. V., & Jaeger, S. R. (2016). Measurement of consumer product emotions using questionnaires. In H. L. Meiselman (Ed.), <i>Emotion measurement</i> (pp. 165–195). Elsevier. Desmet, P. M. A. (2003). Measuring emotions: Development and application of an instrument to measure emotional responses to products. In M. A. Blythe, A. F. Monk, K. C. J. Overbeeke, & P. C. Wright (Eds.), <i>Funology: From usability to enjoyment</i> (pp. 111–123). Kluwer Academic Publishers.
16	Mar 20	<ul style="list-style-type: none"> Student seminar 4—Behavioral measures of emotion 	<ul style="list-style-type: none"> Tullis, T., & Albert, W. (2013). Behavioral and physiological metrics. In <i>Measuring the user experience</i> (pp. 163–185). Elsevier. Jacob-Dazarola, R., Nicolás, J. C. O., & Bayona, L. C. (2016). Behavioral measures of emotion. In H. L. Meiselman (Ed.), <i>Emotion measurement</i> (pp. 101–118). Elsevier.



17	Mar 25	<ul style="list-style-type: none"> Student seminar 5—Video-supported interview technique (self- confrontation) Determining emotions to design for 	<ul style="list-style-type: none"> Lee, K.P. and Jeong, S.H. (2006) ‘Development of tool for video-debriefing for understanding emotion over usability’, Paper presented at The 5th Design & Emotion Conference, 27–29 September, Gothenburg, Sweden. Lim, S.S. (2002) ‘The self-confrontation interview: enhancing our understanding of human factors in web-based interaction’, <i>Journal of Electronic Commerce</i>, Vol. 3, No. 3, pp.162–173.
18	Mar 27	<ul style="list-style-type: none"> Student seminar 6 —Methodological issues in consumer product emotion research using questionnaire In-class project work and feedback 	<ul style="list-style-type: none"> Jaeger, S. R., & Cardello, A. V. (2016). Methodological issues in consumer product emotion research using questionnaires. In H. L. Meiselman (Ed.), <i>Emotion measurement</i> (pp. 323–352). Elsevier.
	Apr 1	Spring break	
	Apr 4	Spring break	
19	Apr 8	<ul style="list-style-type: none"> Guest lecture 2: Design for in-flight passenger experience 	
20	Apr 10	<ul style="list-style-type: none"> Methods and tools for assessing user experience 	<ul style="list-style-type: none"> Vermeeren, A. P. O. S., Roto, V., Law, E. L.-C., Obrist, M., Hoonhout, J., & Vaananen-Vainio-Mattila, K. (2010). Filling the Toolbox (pp. 1–9). Presented at the CHI 2010, Atlanta, Georgia.
21	Apr 15	<ul style="list-style-type: none"> Interim presentation of project 2 and 3 (4700 & 6700) Interim course reflection 	
22	Apr 17	<ul style="list-style-type: none"> Assessing quality of interactive products 	<ul style="list-style-type: none"> Hassenzahl, M., Diefenbach, S., & Göritz, A. (2010). Needs, affect, and interactive products – Facets of user experience. <i>Interacting with Computers</i>, 22(5), 353–362.
Design for well-being (4 sessions)			
23	Apr 22	<ul style="list-style-type: none"> Introduction to design for well-being Design for personal significance 1 	<ul style="list-style-type: none"> Desmet, P. M. A., & Pohlmeier, A. E. (2013). Positive design: An introduction to design for subjective well-being. <i>International Journal of Design</i>, 7(3), 1–15. Gaggioli, A., Riva, G., Peters, D., & Calvo, R. A. (2017). Positive technology, computing, and design: shaping a future in which technology promotes psychological well-being. In M. Jeon (Ed.), <i>Emotions and affect in human factors and human–computer interaction: Taxonomy, theories, approaches, and methods</i> (pp. 477–502). Elsevier.
24	Apr 24	<ul style="list-style-type: none"> Quiz 2 Design for personal significance 2 	
25	Apr 29	<ul style="list-style-type: none"> Product impact on user behavior Motivation and engagement 	<ul style="list-style-type: none"> Peters, D., Calvo, R. A., & Ryan, R. M. (2018). Designing for Motivation, Engagement and Wellbeing in Digital Experience. <i>Frontiers in Psychology</i>, 9, 179–15. Deci, E. L., & Ryan, R. M. (2015). Self-determination theory. In J. Write (Ed.), <i>International Encyclopedia of Social & Behavioral Sciences (Second Edition)</i>. pp. 486–491). Elsevier.
26	May 1	<ul style="list-style-type: none"> Design for virtue and character strengths 	<ul style="list-style-type: none"> Pohlmeier, A. E., & Desmet, P. M. A. (2017). From good to the greater good. In J. Chapman (Ed.), <i>Handbook of sustainable product design</i> (pp. 469–486). Niemiec, R. M. (2017). Foundations of strengths-based practice. In <i>Character strengths interventions, Seven core concepts of the science of character</i> (pp. 1–21). Hogrefe Publishing.
27	May 6	In-class project work and feedback	
28	May 8	<ul style="list-style-type: none"> Final presentation of project 2 (4700 & 6700) Final presentation of project 3 (6700 only) Roundoff course reflection 	
29	May 15	Submission of project 2 & 3 deliverables	

ASSESSMENT AND GRADING SCALE

For DEA 4700 students, the course grade is composed by the four key elements: (1) attendance and class participation (student seminars), (2) two quizzes, (3) project 1, and (4) project 2. For DEA 6700 students, project 3 is included is as an additional element of the course grade. The points of each element are outlined in the table below.

	Seminar 1	Seminar 2	Quiz 1	Quiz 2	Project 1	Project 2	Project 3	Total
DEA 4700	5 pts	5 pts	5 pts	5 pts	40 pts	40 pts	N/A	100 pts



DEA 6700	5 pts	5 pts	5 pts	5 pts	40 pts	40 pts	20 pts	120 pts
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The total points will be converted into a percentage and rounded off. Students will receive letter grades with pluses and minuses. Extra-points will be awarded to the groups who submit a group diary (for details, see the section “extra deliverable” below).

A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-
4.3	4	3.7	3.3	3.0	2.7	2.3	2	1.7	1.3	1	0.7
98-100%	93-97%	90-92%	87-89%	83-86%	80-82%	77-79%	73-76%	70-72%	67-69%	63-66%	60-62%

ATTENDANCE AND CLASS PARTICIPATION (STUDENT SEMINAR)

Attendance is mandatory, i.e., students are expected to attend all classes. Absence will be accepted only in exceptional circumstances and is to be requested in advance and in writing (email to jy846@cornell.edu). Repeated absence not previously agreed—exceeding three sessions—will result in a grade penalty at the end of the semester.

Class participation will be assessed based on the student seminars that are meant to support peer learning and teaching environment in class. Each group of the project 1 and 2 will be assigned a topic to study.

QUIZZES

Students will take two quizzes, each of which counts for 5 points of the end grade. The quizzes test basic knowledge of the assigned readings. The question format is a combination of true/false and multiple choice. Prior to the quizzes, a set of example questions will be offered to help the students get a quick sense of what the quizzes would look like.

Only students with exam schedule conflicts, medically verified absences, and the like may take the makeup quizzes. In this case, consult the instructor or the teaching assistant and let them know the condition in advance.

MARKING CRITERIA OF PROJECT 1, 2, AND 3

In each group project, students will be assigned to work with different members. Four (or five) students will work together as a group and receive the same grade. Group formulations will be balanced by the instructor and teaching assistant based on diversity of the group members, e.g., design and research skills, education levels (undergraduate, i.e., DEA 4700 and graduate, i.e., DEA 6700 study) and genders. The assessment and marking criteria of the projects are as follows.

Criterion	Weighting	Criterion description	Assessment means
Design and development process	60%	<ul style="list-style-type: none"> How you investigated the ergonomics issues (i.e., range and quality of utilization of ergonomics methods and tools to understand and explore the target design context(s) and user(s)) What the specific issues you identified are, who experiences these issues, and how they impact him/her What your key insights are (i.e., creative and contextual framing of project opportunities and challenges) How your research and insights informed your solution and how you developed, tested, iterated and refined your design solution (i.e., thoroughness of iterative process, reference to the current designs and users’ unmet needs and expectations) 	<ul style="list-style-type: none"> In-class discussion Interim presentation Written paper
Design communication	40%	<ul style="list-style-type: none"> Succinct and effective communication of <ul style="list-style-type: none"> What your solution is and what specific area of user needs it addresses How you arrived at the design decisions How your design solution benefits the target users (or community)) Quality of visual and audio communication across the whole presentation 	<ul style="list-style-type: none"> Final presentation Written paper Poster Demonstration video

DELIVERABLES OF PROJECT 1, 2, AND 3

Each group project entails four deliverables in common: (1) a written paper, (2) a demonstration video of the design solution, (3) a poster and (4) an oral presentation.



Deliverable	Description
A written paper	A 2~8-page written paper communicates the problem, design process and methodology, idea generation and screening, and prototypes of the design solution as well as an argument of its effectiveness and usefulness.
A demo video	A 2~3-minute video succinctly demonstrates the design solution, conveying the problem, process (an overview of the methods used to design and evaluate the design solution), and its advantages along with usage scenarios.
A poster	A poster summarizes the essence of the project with visual and textual descriptions.
An oral presentation	A 10~15-minute oral presentation conveys the project's aim and vision, progression through the entire design process, and communication of key aspects of the final design solution.

- The format of a written paper will follow the guideline of case studies submission of the ACM CHI Conference on Human Factors in Computing Systems (hereafter called “CHI”)— <http://chi2019.acm.org/authors/case-studies>. The submission format and document template file are available on the website.
- The format of a demo video will stick to the guideline of video showcase of CHI— <http://chi2019.acm.org/authors/video-showcase>. It is recommended that students review the guide to a successful video production and submission— <http://chi2019.acm.org/guide-to-a-successful-video-submission>.
- The format of a poster will follow the guideline of CHI— <https://chi2018.acm.org/authors/poster-instructions>. A template file will be offered to students.
- There is no specific guideline for an oral presentation to follow. Good and bad examples of an oral presentation and associated considerations are available at <https://chi2018.acm.org/guide-to-a-successful-presentation>.

Late submission of any item will result in a 10% deduction from the grade of the related project.

EXTRA DELIVERABLE

While not obligatory, all groups are highly encouraged to keep a group diary (either a printed copy, an online blog, or an Instagram feed) that records the journey the group has been through to the end result—descriptions of the lessons of weekly activities, implications for the project progress, development of prototype(s), etc. by means of texts, photos, and videos. 2 points will be earned for each project. For example, a DEA 6700 student who submits three diaries (i.e., project 1, 2, and 3) will receive 6 extra points.

KEY ACTIVITIES AND DATES

	Activity	Date
Project 1 (DEA 4700 and 6700)	Introduction to project 1	January 23, 2019
	Interim presentation	February 13, 2019
	Draft paper submission	March 4, 2019
	Final presentation	March 11, 2019
	Submission of project 1 deliverables	March 18, 2019
Project 2 and 3 (DEA 4700 and 6700)	Introduction to project 2	March 18, 2019
	Interim presentation	April 15, 2019
	Draft paper submission (Project 2 only)	May 1, 2019
	Final presentation	May 8, 2019
	Submission of project 2 deliverables	May 15, 2019
Quiz	Quiz 1	February 27, 2019
	Quiz 2	April 24, 2019
Student seminar	Seminar 1	February 18, 2019
	Seminar 2	February 20, 2019
	Seminar 3	February 27, 2019
	Seminar 4	March 20, 2019
	Seminar 5	March 25, 2019
	Seminar 6	March 27, 2019



LEARNING RESOURCES

READINGS

All reading materials, including papers and book chapters, will be distributed in a digital format via Cornell Canvas.

RECOMMENDED READINGS

- Hedge, A. (2016). Ergonomic workplace design for health, wellness, and productivity. CRC Press.
- Hekkert, P., & Schifferstein, H. N. J. (Eds.). (2008). Product experience. London: Elsevier.
- Tullis, T., & Albert, W. (2013). Measuring the user experience. Elsevier.

PROTOTYPING MATERIALS

Group project 1, 2, and 3 takes iterative prototyping. Prototyping devices and facilities will be available to use at the digital design and fabrication studio located at HEB 2L31. There are areas specifically planned as a wood shop, metal shop, assembly studio, paint room, laser studio, and 3D print studio. For safety, all students are required to receive safety training before using the studio. The general information about the facility use is accessible at <https://www.human.cornell.edu/about/administration/facilities/d2fs>.

For interactive prototyping, students are encouraged to buy and use basic prototyping toolkits that do not require highly advanced programming and electronics knowledge and skills. Note that the course puts emphasis on the pragmatic use of interactive technology. Interactive prototyping is meant to serve as a means to quickly generate and evaluate the ideas instead of refining product properties. Some examples of easy-to-use, yet powerful prototyping tools are:

- LittleBits: <https://littlebits.com>
- Kiwoco: <https://www.kiwico.com/tinker>
- Makey Makey: <http://makeymakey.com>
- Microduino: <https://microduinoinc.com>
- IFTTT: <https://ifttt.com>
- Flic: <https://flic.io>

COURSE POLICY

CONSENT FOR RESEARCH PARTICIPATION

The tutorial sessions in class and the three group projects will involve peer-to-peer participant studies, i.e., the students enrolled in the course will be recruited to conduct their own or other groups' studies. The studies utilize the design methods and tools taught in the course such as user observation, interview, survey, heuristic evaluation, etc. (for an overview of the methods, refer to the section of course contents and schedule). The data will be collected using videos, audios, photographs, sketches, and/or written notes. Participants' profiles and project titles will never be attributed to file names and their meta-data. When the personal data of the participants is necessary for the process and outcome of the project (e.g., paper, poster, demo video, slide presentation, or other means of publication), the participants' responses will be anonymized. In addition, from the phase of data collection to the phase of project presentation, all data will be anonymized by replacing participants' names with nominal codes (e.g., participant A or member 1) and blurring participants' faces on photographs or videos.

Both involving participants and participating in a study as a participant are an important facet of the course's learning experience as they contribute to practicing the design methods and tools, understanding and addressing end-users' wants and needs, and emphasizing with the end-users. However, some students might find this setup not acceptable or questionable, thus would have the inhibition to participate in certain studies. In this case, consult the instructor or the teaching assistant and let them know the decision in advance. Non-participation will not affect the student's end grade.



PUBLICATION AUTHORSHIP

The student work may be further developed into academic publications for submission to conferences in the fields of design research and human-computer interaction. Examples are CHI, Nordi-CHI, TEI, DIS, DRS, ICED, IASDR, Pervasive Healthcare, etc. The students who produced the work will have the authorship as the first authors and will be in charge of the publication process (e.g., submission and revision). The instructor and TA will be identified as the co-author (i.e., the last author) in recognition of their preparation and support in the work process.

DISSEMINATION OF COURSE OUTCOMES

Upon completion of the course, some of the course outcomes, including papers, posters, and demo-movies of the group projects will be made available on the course website under the approval of the students. The students who produced the work will be credited. This is to inform and inspire future DEA 4700/6700 students. Perhaps, some students want to embargo their project outcomes for certain reasons. In this case, consult the instructor or the teaching assistant and let them know the decision in advance. Non-participation will not affect the student's end grade.

DIVERSITY AND INCLUSION STATEMENT

Cornell University and the course instructor committed to full inclusion in education for all persons. Services and reasonable accommodations are available to persons with temporary and permanent disabilities, to students with Deferred Action for Childhood Arrivals (DACA) or undocumented status, to students facing mental health or other personal challenges, and to students with other kinds of learning challenges. Please feel free to let the instructor know if there are circumstances affecting your ability to participate in class. Some resources that might be of use include:

- Office of Student Disability Services: <https://sds.cornell.edu/>
- Cornell Health CAPS (Counseling & Psychological Services): <https://health.cornell.edu/services/counseling-psychiatry>
- Undocumented/DACA Student support: In the Dean of Students office, contact Kevin Graham (Kevin.Graham@cornell.edu) and see the list of campus resources at <https://dos.cornell.edu/undocumented-daca-support/undergraduate-admissions-financial-aid>

This course follows the accommodations procedure of Cornell University policy. The request can be made through the student service services. To facilitate all necessary aids and services in a timely manner, it is recommended that students send an early notification to the instructor—within the first two weeks of classes, or at least two weeks before accommodations are expected to begin. For more details, check the procedure at <https://sds.cornell.edu>.

ACADEMIC INTEGRITY

Absolute integrity is expected of every Cornell student in all academic undertakings. Integrity entails a firm adherence to a set of values, and the values most essential to an academic community are grounded on the concept of honesty with respect to the intellectual efforts of oneself and others. Academic integrity is expected not only in formal coursework situations, but in all University relationships and interactions connected to the educational process, including the use of University resources. While both students and faculty of Cornell assume the responsibility of maintaining and furthering these values, this document is concerned specifically with the conduct of students. A Cornell student's submission of work for academic credit indicates that the work is the student's own. All outside assistance should be acknowledged, and the student's academic position truthfully reported at all times. In addition, Cornell students have a right to expect academic integrity from each of their peers. The Cornell code of academic integrity is available at <https://cuinfo.cornell.edu/aic.cfm>.