



Special Topics: UX in the era of generative AI Fall 2025

Course Information

Course Title: User Experience Design in the era of generative AI
Course Number: INFO 7375
Term and Year: Fall 2025
Credit Hour: 4
Course Format: ONLINE
Class schedule: Tuesdays 12 - 3pm EST

Instructor Information

Full Name: Svetlana Taneva Metzger
Email Address: s.tanevamezger@northeastern.edu
Office Hours: By appointment

Instructor Biography

I am a Professor at Northeastern University's College of Engineering, and previously I've spent over 15 years immersed in the world of user research, cognitive engineering, human factors-informed design, and usability evaluations. My specialty knowledge areas include user research, application of UXD to Healthcare IT, medical device regulation, and AI in UX Design. My international experience spans Canada, the U.S., France, Germany, and Switzerland. I've also had the privilege of being a frequent public speaker at international symposiums.

Teaching Assistant Information

Full Name: Nana Abena Bempong
Email Address: bempong.n@northeastern.edu
Office Hours: By appointment

Course Prerequisites

This class assumes no prior experience in Design Principles, User Experience Design, Product Design, or User Experience testing concepts.

Course Description

AI will fundamentally change how think about User Experience (UX) Design, and the disruption has already started. This [discovery course](#) will critically examine how the recent applications of generative AI and LLMs are re-shaping UX design practice and applications. The course introduces user experience concepts and contrasts traditional methods to tackle UX design and testing with the novel opportunities to address the same UX

challenges with generative AI. Students will have an opportunity to experiment with applying old and new methods through projects, and to derive through experience the advantages and disadvantages of utilizing AI in UX design and testing.

The course offers students an opportunity to build the necessary skill sets to make better decisions to designing usable human-centred interfaces that are intuitive. Students practice interview techniques, ethnography, and evaluation methods to understand user needs, derive user requirements and evaluate designs for usability. As well, students will learn where the strengths and weaknesses of generative AI are in UX design and testing.

Course Learning Outcomes

1. Understand User Experience concepts and importance of making usable interfaces and products
2. Apply User-Centred design and evaluation methodologies to UX projects.
3. Appreciate the changing landscape of methods and practices in the field of UX through mastering skills in both traditional methods of UX design and testing, as well as AI-supported UX design and Testing.
4. Apply AI tools to generate user research tools, analyze user data, generate UX requirements, generate and evaluate prototypes of user interfaces
5. Critically evaluate the role of AI tools to inform user research and user testing through hands-on activities comparing human and AI-enabled UX activities
6. Evaluate the quality of AI outputs to inform UX design and testing
7. Develop and display critical thinking and analytical skills through hands-on assignments

Required Tools and Course Textbooks.

As this is a discovery course, readings will consist of a multitude of diverse articles and book chapters. The readings associated with each weeks' topics are mandatory and will be assigned in advance of each class. Students are expected to read the assigned chapters and articles prior to each class meeting.

Course Schedule/Topics Covered.

This course spans the following UX topics. The schedule could change, so please keep an eye on the Canvas course space for all deadlines, as it will be the most up to date information.

1. *Intro to UX* engineering (Weeks 1-2)
 - Cognition, human performance and behaviour, User Centred Design Process, Systems engineering approach
 - What are the opportunities and challenges to improve how we perform UX design through the use of AI?
2. *UX Research* to inform UX design effectiveness in the era of AI (Weeks 3-5)

- traditional methods for UX research and practice - Data gathering through observations, Interviews, Questionnaires; data analysis – qualitative methods for User Needs Assessment and Requirements Gathering;
- Systems engineering and human error
- generative AI applications in UX research – quality and effectiveness of outputs
- AI impact on UX research practice: How is AI changing UX research

Week 6: Exam

3. *UX design* - from ideation to prototyping (Weeks 6-8)
 - inputs to design – personas, storyboards, and journey maps
 - design and prototyping - conceptual models and early prototyping. Interaction models and different types of interfaces.
 - From user requirements to UX conceptualization – the human designer vs. the AI generator: who is better and at what? and how to leverage both intentionally for best outcomes
 - Using AI to prototype - low fidelity and high fidelity prototyping
 - AI tools for UX design
4. *UX evaluation and testing* (Weeks 9-12)
 - Heuristics, expert reviews – human vs. AI-enabled evaluations
 - Traditional methods for UX testing and usability validation. Prototype testing through cognitive walkthroughs, and high fidelity usability testing. Experimental design in early and late stages of design.
 - AI evaluation of design effectiveness and the role of end-users in UX testing – with or without them in the era of AI.
 - qualitative and quantitative analysis methods and usability metrics – can AI do it all?
 - AI opportunities to impact UX testing practices – quality and effectiveness of outputs

Week 13: Exam

5. *Other topics* (incl. Ethical considerations and countering AI model biases) (Weeks 13-14)

Exams: Weeks 6 and 13

No classes: November 11 (Veteran's Day)

Grading

In-class participation	35%
In-class presentations	20%
Two exams	30%
Assignments	15%

Grading Scale

95-100% A	87-89.9% B+	77-79.9% C+	69.9% or below F
	84-86.9% B	74-76.9% C	
90-94.9% A-	80-83.9% B-	70-73.9% C-	

Plagiarism Policy

When there is evidence that a student has committed plagiarism, copied the work of others, allowed others to copy their work, cheated on an exam, altered class material or scores, or has inappropriate possession of exams, or sensitive material, the incident will be investigated. The consequences for academic dishonesty are severe and that will include a straight F in the course with the potential for dismissal.

The following rules apply to anything you hand in for a grade:

- You may not copy anyone else's work under any circumstances - this includes online and AI sources.
- You may not use any automated or AI tools to generate your assignments or any other material that you're turning in for a grade, in whole or in part, unless an assignment specifically allows you to use these tools.
- You may not permit any other student to see any part of your individual assignments.
- You may not permit yourself to see any part of another student's individual assignment.
- You may use online resources as part of your coursework but you may not copy from online sources. If you get an idea of how to solve a problem from an online source, include a short citation in your submission.
- Use of AI resources and posting on forums is not permitted.
- The only exception to the above rules is that you may collaborate with students in your group for assignments classed as group assignment - almost all labs for example will be completed in groups.

Attendance/Late Work Policy

Attendance Policy

Students registered in MGEN courses (INFO, CSYE, and DAMG) are allowed **a maximum of 2 absences per course, with 3 or more absences resulting in an automatic 'F' for that course.** Students are expected to inform their instructors of any absences in advance of the class; if a student is sick long-term or experiences a medical issue that prevents class attendance, it is strongly encouraged that they speak with their Academic Advisor (coe-mgen-gradadvising@northeastern.edu) to learn more about the Medical Leave of Absence. Should a student anticipate being unable to attend 3 or more classes, they should discuss their situation with their Academic Advisor to explore other types of leave in accordance with the University's academic and global entry expectations. International students should review the Office of Global Services webpage to understand their visa compliance requirements.

Teaching Assistants (TAs) or Instructional Assistants (IAs) will be present at each class to collect student attendance.

Late Work Policy

Students must submit assignments by the deadline in the time zone noted in the syllabus. Students must communicate with the faculty prior to the deadline if they anticipate work will be submitted late. Work submitted late without prior communication with faculty will not be graded.

Course Evaluations

Your feedback regarding your educational experience in this class is particularly important to the College of Engineering. Your comments will make a difference in the future planning and presentation of our curriculum.

At the end of this course, please take the time to complete the evaluation survey at <https://neu.evaluationkit.com>. Your survey responses are **completely anonymous and confidential**. For courses 6 weeks in length or shorter, surveys will be open one week prior to the end of the courses; for courses greater than 6 weeks in length, surveys will be open for two weeks. An email will be sent to your Northeastern University Mail account notifying you when surveys are available.

Academic Integrity

A commitment to the principles of academic integrity is essential to the mission of Northeastern University. The promotion of independent and original scholarship ensures that students derive the most from their educational experience and their pursuit of knowledge. Academic dishonesty violates the most fundamental values of an intellectual community and undermines the achievements of the entire University.

As members of the academic community, students must become familiar with their rights and responsibilities. In each course, they are responsible for knowing the requirements and restrictions regarding research and writing, examinations of whatever kind, collaborative work, the use of study aids, the appropriateness of assistance, and other issues. Students are responsible for learning the conventions of documentation and acknowledgment of sources in their fields. Northeastern University expects students to complete all examinations, tests, papers, creative projects, and assignments of any kind according to the highest ethical standards, as set forth either explicitly or implicitly in this Code or by the direction of instructors.

Go to <http://www.northeastern.edu/osccr/academic-integrity-policy/> to access the full academic integrity policy.

MGEN Student Feedback

Students who would like to provide the MGEN unit with anonymous feedback on this particular course, Teaching Assistants, Instructional Assistants, professors, or to provide general feedback regarding their program, may do so using this survey: https://neu.co1.qualtrics.com/jfe/form/SV_cTIAbH7ZRaaw0Ki

University Health and Counseling Services

As a student enrolled in this course, you are fully responsible for assignments, work, and course materials as outlined in this syllabus and in the classroom. Over the course of the semester if you experience any health issues, please contact UHCS.

For more information, visit <https://www.northeastern.edu/uahcs>.

Student Accommodations

Northeastern University and the Disability Resource Center (DRC) are committed to providing disability services that enable students who qualify under Section 504 of the Rehabilitation Act and the Americans with Disabilities Act Amendments Act (ADAAA) to participate fully in the activities of the university. To receive accommodations through the DRC, students must provide appropriate documentation that demonstrates a current substantially limiting disability.

For more information, visit <https://drc.sites.northeastern.edu>.

Library Services

The Northeastern University Library is at the hub of campus intellectual life. Resources include over 900,000 print volumes, 206,500 e-books, and 70,225 electronic journals.

For more information and for education specific resources, visit <https://library.northeastern.edu>
Network Campus Library Services: [Northeastern University Library Global Campus Portals](#)

24/7 Canvas Technical Help

For immediate technical support for Canvas, call 617-373-4357 or email help@northeastern.edu

Canvas Student Resources: <https://canvas.northeastern.edu/student-resources/>

For assistance with my Northeastern e-mail, and basic technical support:

Visit ITS at <https://its.northeastern.edu>

Email: help@northeastern.edu

ITS Customer Service Desk: 617-373-4357

Outreach, Engagement, Belonging

Northeastern University is committed to fostering a community of belonging, which is essential to the advancement of Northeastern University's mission of teaching and research. Our university is stronger as a result of the varied backgrounds, experiences, and perspectives that all members of our global community bring to the pursuit of knowledge. Embracing this pluralism is not the work of one office, department, or academic unit. It is a shared responsibility that spans disciplines and boundaries. By harnessing the power of our differences, we will continue to light the path to bold new ideas and life-changing discoveries.

It is my intention that students from all backgrounds and perspectives will be well served by this course, and that the diverse experiences that students bring to this class will be viewed as an asset. I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, socioeconomic background, family education level, ability – and other visible and nonvisible differences. All members of this class are expected to contribute to a respectful, welcoming and belonging environment for every other member of the class.

Your suggestions are encouraged and appreciated. Please visit Belonging at Northeastern – Northeastern Provost for complete information.

Title IX

Title IX of the Education Amendments of 1972 protects individuals from sex or gender-based discrimination, including discrimination based on gender-identity, in educational programs and activities that receive federal financial assistance. Northeastern's Title IX Policy prohibits Prohibited Offenses, which are defined as sexual harassment, sexual assault, relationship or domestic violence, and stalking. The Title IX Policy applies to the entire community, including male, female, transgender students, faculty and staff. In case of an emergency, please call 911.

The Office for University Equity and Compliance (OUEC) leads Northeastern University's efforts in maintaining compliance with all federal, state, and provincial civil rights laws and prohibits discrimination within any of its programs, activities, and services. Please visit <https://ouec.northeastern.edu/> for more information and for the link to file a report.