



Northeastern University

College of Engineering

INFO 6150 Web Design and User Experience Engineering

Course Information

Course Title: Web Design and User Experience Engineering

Course Number: INFO 6150

Term and Year: Spring 2024

Credit Hour: 4

Course Format:

Office Hours:

Instructor Information

Full Name: Brett Ritter

Email Address: b.ritter@northeastern.edu

Course Prerequisites

Graduate level INFO 5100 Minimum Grade of B- or Graduate level CSYE 6200 Minimum Grade of B-

Course Description

Exposes students to both conceptual and technical aspects of Web design. User experience design is the discipline of creating a useful and usable website or application that is easily navigated and meets the needs of both the site owner and its users. Covers Web standards and best practices. Studies the fundamental concepts, techniques, practices, work flows, and tools associated with the practice of user-experience design in Web interfaces. Offers students an opportunity to learn the core principles of information architecture, usability, marketing hierarchy, and user experience for contextual, value-driven websites. Additional areas of focus include typography, color theory and composition, responsive design, CSS3 concepts, basic scripting, and JavaScript libraries to create functional, effective, and visually appealing websites.

Standard Learning Outcomes

Learning outcomes common to all College of Engineering Graduate programs:

1. *An ability to identify, formulate, and solve complex engineering problems.*
2. *An ability to explain and apply engineering design principles, as appropriate to the program's educational objectives.*
3. *An ability to produce solutions that meet specified end-user needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.*

The Information Systems Program accepts students of different engineering backgrounds with minimum programming skills and produces first class Information Systems engineers that operate at the intersection of real-world complexity, software development, and IT management. Graduating students will be able to construct end-to-end advanced software applications that meet business needs.

Specific Learning Outcomes for the Information Systems program:

1. *Create a strong technical foundation through diverse, high-level courses*
2. *Built crucial interpersonal skills needed to succeed in any industry*

3. *Foster a deep level of applied learning through project based case studies*

Course Outcomes and Assessment Standards

After successful completion of this course, the student will be able to:

1. Build a static website from scratch that follows industry best practices regarding:
 - a. mobile-first design
 - b. responsive elements
 - c. semantic HTML
 - d. basic accessibility(a11y) concerns
2. Manage interactive elements on a web page using Javascript to create an effective user experience
3. Understand core user interface/user experience concepts (UI/UX) and be able to evaluate the appropriateness of different options for solving interaction needs
4. Use the above elements in a dynamic web site/page/application when provided a framework in which to do so
5. Understand different CSS management approaches
6. Participate in a discussion that connects the technical, visual, and interactive elements of a web project
7. Use common industry tools such as Git and Github to receive and submit work, and Slack to communicate regarding the assigned projects.

The course involves weekly individual assignments due the night before the next class. Short weekly quizzes regarding the concepts from previous classes are conducted at the start of each class using the university Canvas learning management system. A midterm web project and final project are both done in the same manner as the weekly assignments, given via github to be completed outside of class and submitted as a pull request in github by the due date.

A student's grade will be calculated from a potential 100% using the following breakdown. The instructor can and will modify grades based on the cumulative demonstrated understanding of the material.

- Participation: 10%
- Assignments: 20% (the lowest assignment grade will be excluded)
- Quizzes: 20% (The lowest quiz score will be excluded)
- Midterm Project: 20%
- Final Project: 20%

End-of-Course Evaluation Surveys

Your feedback regarding your educational experience in this class is very important to the College of Professional Studies. 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 HuskyMail 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.

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 <http://www.northeastern.edu/drc/getting-started-with-the-drc/>.

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 <http://subjectguides.lib.neu.edu/edresearch>.

24/7 Canvas Technical Help

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

myNortheastern, e-mail, and basic technical support

Visit the [Information Technology Services \(ITS\) Support Portal](#)

Diversity and Inclusion

Northeastern University is committed to equal opportunity, affirmative action, diversity and social justice while building a climate of inclusion on and beyond campus. In the classroom, member of the University community work to cultivate an inclusive environment that denounces discrimination through innovation, collaboration and an awareness of global perspectives on social justice.

Please visit <http://www.northeastern.edu/oidi/> for complete information on Diversity and Inclusion

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.

Please visit www.northeastern.edu/titleix for a complete list of reporting options and resources both on- and off-campus.