



DOANE UNIVERSITY

CMP 411

Software Engineering: Front-End Design and Development

Syllabus

Updated 8/2/2023

General Information

- Instructor

Alec J. Engebretson
Professor of Computing
Doane University
Crete, NE 68333
Phone: (402)826-8216 (office)
Phone: (402)826-9541 (cell)
Email: alec.engebretson@doane.edu
Office: Lied 232 (Crete campus)
Office Hours: MWF 10-11:00, TR 8:30-9:30

- Text

There is no required text. Resources will be provided as needed.

Course Description and Learning Outcomes

This course is organized around eight modules related to full-stack web application development with a focus on front-end development. At the end of the course, students will be able to:

1. Design and develop an application front-end using foundational technologies (html, css, javascript/typescript) that consume application programming interfaces (APIs) and apply current best practices in UI/UX.
2. Design and develop an application front-end utilizing current integrated development environments (VS Code), development life cycle practices (Agile) and source control/version management tools (git/Github).
3. Design and develop an application front-end incorporating libraries and/or frameworks which extend the foundational technologies (Bootstrap, React).
4. Design and develop an application front-end applying best practices in responsive, accessible and secure design.

5. Demonstrate confidence and demonstrate the ability to independently learn and apply new technologies, tools, practices to the design and development of software.

Module (dates are approximate)	Topic
0 8/16	Course Overview
1 8/18 - 8/30	Foundations of front-end development: HTML, CSS, Javascript Create a front-end for a survey form
2 9/1-9/13	More on HTML, CSS; intro to responsive design, and source control using git and Github in VS Code Create a front-end for a landing page
3 9/15-9/27	More on Javascript; intro to Agile development methodologies; Create a front-end to check for a palindrome
4 9/29-10/18 (includes fall break)	Even more on Javascript (and Typescript); best practices in front-end analysis and design Create a front-end that implements a Caesar's cipher
5 10/20 - 11/1	Bootstrap - a CSS framework Create a front-end for a random quote machine
6 11/3-11/15	React - a Javascript library (or optionally Angular) Create a front-end for a Javascript calculator
7 11/17-12/1 (includes Thanksgiving)	Project studio time
8 12/4-12/8 and final Thur 12/14 8:00-11:00	Demonstrate final project Presentations on a front-end development topic

Grading

This course uses specification-based, competency-based grading. A description of this type of grading can be found in Canvas with this syllabus.

To earn a C, you must meet **all** of the following specifications:

- (1) Complete **all** required activities
- (2) Complete **all** assignments
- (3) Average 70% or better on the quizzes

To earn a B, you must meet **all** of the following specifications:

- (1) Meet **all** specifications at the C level
- (2) Complete **all** required activities *on time*

- (3) Complete **all** assignments on time and at an *Acceptable* level
- (4) Average 80% or better on the quizzes

To earn an A, you must meet **all** of the following specifications:

- (1) Meet **all** specifications at the B level
- (2) Complete *at least two* assignments at an *Exceptional* level
- (3) Average 90% or better on the quizzes

Each student will be given three **tokens** each of which will be used to forgive an activity or assignment being late . At the end of the semester, if the student did not use any tokens, a + will be added to their final course grade. If one or two tokens are used, the final course grade does not change. If the student uses three tokens, a – will be added to the final course grade. More than three tokens may cause the final grade to be reduced.

Course-Related Information

Technical Support Contact Information

If you are in need of technical assistance please access the Self Service Portal. You may reach the help desk at 402-826-8411 or by email at helpdesk@doane.edu.

Academic Integrity

Fundamental to our mission, our core values, and our reputation, Doane University adheres to high academic standards. Students of Doane University are expected to conduct themselves in a manner reflecting personal and professional integrity.

Disciplinary actions may be taken against students whose academic behavior is not congruent with the expectations of the University. Students are responsible for adhering to the standards detailed in this policy. Not being familiar with these standards does not mean that the students will not be accountable for adherence to them. Additional details on the Academic Integrity policy for violating academic integrity are published in the undergraduate and graduate catalogs.

In accordance with Doane's academic dishonesty policy which articulates the college's stance on honesty in the classroom, any act of dishonesty in pursuing the work of this course will be penalized.

First confirmed act of dishonesty

- Report to Academic Affairs as required by college policy.
- Receipt of a zero (0) for the activity.

Second and subsequent confirmed acts of dishonesty will be forwarded to and handled by the Vice President for Academic Affairs in accordance with policy guidelines.

Remember, collaboration among classmates is necessary and expected as an integral part of the education process. Copying will not be tolerated!

Accommodations

Any student who thinks they may need an accommodation based upon the impact of a disability should contact the Office of Disability Services (<https://www.doane.edu/disability-services>) to coordinate reasonable accommodations as soon as possible.

Course Attendance and Participation

Doane University expects active participation by a student in a course, whether the course is on-ground or online. Regular engagement is expected for online courses. In order to maximize the benefit from this course, participation in all modules is necessary and therefore expected.

Syllabus Changes

The instructor and Doane University reserve the right to make changes as necessary to this course syllabus. All students will be notified of any changes.

Doane Syllabus Addendum

Each student is responsible for being aware of the policies, resources, and expectations as specified in the Doane Syllabus Addendum found at: <https://www.doane.edu/Syllabus>

Student Safety and Rights

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses, subject to the same kinds of accountability and the same kinds of support that apply to offenses against other protected categories such as race, national origin, and so on. If you or someone you know has been harassed or assaulted, you can find the appropriate, confidential resources here:

- Counseling Services: email Counselor Myron Parsley (myron.parsley@doane.edu) or call Student Health Nurse to schedule an appointment (402) 826-8265
- Health & Wellness: email Student Health Nurse, call (402) 826-8265, or visit in the lower level of the Perry Campus Center
- Hope Crisis Center: call 24-hour hotline (877) 388-4673(HOPE);
- Safety Office: email Doane Safety (doanesafetyoffice@doane.edu), call (402) 826-8669, or visit in the upper level of Padour-Walker.
- Title IX Coordinator: email Laura Northup (laura.northup@doane.edu) or call (402) 826-6773

