

# OTTERBEIN UNIVERSITY DEPARTMENT OF MATHEMATICAL SCIENCES

### **COMP 3700**

## **Web Development**

Fall 2023

**Class** MWF 8:00 - 8:55 a.m. in Towers 117

Class Web Page <a href="http://faculty.otterbein.edu/DStucki/COMP3700/index.html">http://faculty.otterbein.edu/DStucki/COMP3700/index.html</a>

InstructorDavid J. StuckiOfficeTowers 139

Office Hours MWF 10:15-11:15 (Towers 139) or by appointment

Email DStucki@otterbein.edu

Office Phone 823-1722

**Description** 

The design and development of dynamic and interactive web sites, including specification of content (HTML), presentation (CSS), client side interaction through scripting languages (JavaScript), and server side processing through scripting languages (PHP, Node.js, React) and database interaction (MySQL).

#### **Prerequisites**

#### **COMP 2000**

#### **Objectives**

By the end of this course you should be able to

- create static web page content using validated HTML and HTML5;
- customize the presentation of HTML pages using validated CSS and CSS3;
- create dynamic and interactive web pages using JavaScript, jQuery, and React;
- develop customized web server capabilities using Node.js;
- use JavaScript object and event models effectively;
- use Python frameworks to create interactive web apps;
- combine all of the above to design and create and present a dynamic web-based application;
- give a technical presentation to the class on a topic relevant to the course.

Program Learning Outcomes We have defined a set of 11 Student Learning Outcomes (SLO) for the Computer Science major. Your work in this course contributes to the following SLOs:

- 2. Students can methodically solve algorithmic problems.
- 6. Students can apply development practices and processes to a variety of problems.
- 7. Students can independently learn and apply new methods and tools.
- 8. Students can effectively present a curricular topic to an audience.

**Text** 

Reading materials will be provided. We will also use free online resources such as tutorials.

**Work Load** 

"Students are expected to spend three hours per week (including class hours) in study for each semester hour of credit attempted." (from the Course Catalog) Since COMP 3700 is 3 (Semester) Credit Hours, 126 hours of study is expected: 42 hours in class (3 hours per week), and 84 hours beyond class hours (6 hours per week).

#### **Assignments**

There will be several small projects to be solved either individually or in pairs, as well as an individual capstone project. The small projects will cover the major development technologies

of this course: HTML, CSS, JavaScript, jQuery, Node.js, React, Python. The capstone will be a full stack dynamic web-based application of your own design. Late work incurs a 10% penalty per day.

You will be assigned a presentation on a technical topic relevant to the course. You will also present your capstone project at the end of the semester.

**Exams** 

There will be no exams. There will be six quizzes covering language fluency (HTML, CSS, JavaScript, etc.). We WILL use the final exam time for capstone presentations, so attendance at the final exam is mandatory.

**Participation** 

We will follow some active learning practices in this class, including collaborative activities and projects. Your attendance and participation is essential to not only your success but also to the success of your collaborators. You are however tuition-paying adults capable of assessing the consequences of not attending class and lab sessions. I will not assign points for attendance or participation.

**Disabilities** 

If you need an accommodation based on the impact of a disability, you should contact me to arrange an appointment as soon as possible. At the appointment we can discuss the course format, anticipate your needs and explore potential accommodations. I rely on the Disability Services Coordinator for assistance in verifying the need for accommodations and developing strategies. If you have not previously contacted the Disability Services Coordinator (823-1618), I encourage you to do so.

Academic Misconduct Policy All members of the Otterbein College community of learners are expected to follow the rules and customs of proper academic conduct. Proper conduct includes avoiding academic misconduct as defined in the <a href="Student Life Handbook">Students are encouraged to help each other learn the course material. Unless specifically prohibited, you may discuss homework problems and lab exercises with one another. Participants in these discussions usually enjoy the benefit of deeper and greater learning. However, all work submitted for evaluation that is based on discussions with others must be your own work; created with your own hands and fingers while thinking it through.

Any work submitted for evaluation that includes work done by another, copying of another's work, or the result of following another's step-by-step keystrokes and mouse clicks, is a case of academic misconduct. When academic misconduct is found in any assignment or examination you submit, you will receive a zero grade for that assignment or exam. The misconduct will also be reported to the Office of the Academic Dean. If a previous academic misconduct offense is on your record, you will receive a grade of F for this course and a referral to the judicial system.

Grading	<u>Assignment</u>	<u>Weight</u>	<u>Range</u> <u>Grade</u> <u>Range</u> <u>Grade</u>
	Assignments	45%	93 - 100% A 73 - 76.9% C
	Term Project	25%	90 - 92.9% A- 70 - 72.9% C-
	<b>Topic Presentation</b>	15%	87 - 89.9% B+ 65 - 69.9% D+
	Quizzes	15%	83 - 86.9% B 60 - 64.9% D
			80 - 82.9% B- 0 - 59.9% F
			77 - 79.9% C+