Fall 2021

IT 231 Web Development I

Tuesday and Thursday 11:50am– 1:20pm CDM819

## Contact Info

Sean Bush

[sbush2@depaul.edu](http://sbush2@depaul.edu)

CDM Building M112

E-mail is the preferred method of contact, as I check my email daily. Most emails will be answered within 24 hours (unless it’s during the weekend, the latest I would reply is Monday morning). If you do not receive a reply within the timeframe, check to make sure the email address is correct and email me again. When emailing me, it is very important that you include course number in the subject. Example: IT-231: question about site design.

**Office Hours:**

Scheduled office hours are Tuesdays and Thursdays 9 – 10am & 1:45 – 3:00pm by appointment only via Zoom.

## Course Overview

Introduction to framework-based web development. Students create interactive, dynamic web sites using a common web architecture and object-based database access. Programming for web development includes control structures, objects, functions, and use of composite data types.

## Course Goals

The primary goal of this course is to provide a general understanding of programming and computing by developing elementary scripts. Specific goals include writing scripts with the following:

* Writing asynchronous code
* Creating data models
* Debugging JavaScript Modules

**Changes to Syllabus**

This syllabus is subject to change as necessary during the quarter.  If a change occurs, it will be thoroughly addressed during class and sent via email.

## Prerequisites

IT 130

**Textbook**

### **This course does have a *required* text.**

Get Programming with Node.js, Jonathan Wexler / Manning. ISBN: 978-1617294747

The book is available online for free via DePaul eBook Collections.

Go to either one of these links:

<https://libguides.depaul.edu/az.php?t=6193>. Click on O’Reilly for Higher Education.

OR

<https://go.oreilly.com/depaul/>

You should be able to login using your campus connect username and password.

Type Get Programming with Node.js in the search field on the top of the page.

**GRADING POLICY**

**Grading Scale**

Course grades will be reported on the following scale:

|  |  |
| --- | --- |
| **Grade** | **%** |
| A | 94-100 |
| A- | 90-93 |
| B+ | 87-89 |
| B | 84-86 |
| B- | 80-83 |
| C+ | 77-79 |
| C | 74-76 |
| C- | 70-73 |
| D+ | 68-69 |
| D | 60-67 |
| F | Less than 60 |

Grades will be posted in D2L.

**ASSIGNMENTS AND GRADING POLICY:**

**Grading**

1. Assignments (3) 75 points each
2. Quizzes (3) 25 points each
3. Final Project Written Proposal 50 points
4. Final Project 150 points

The goal of assignments is to practice the concepts taught in class. You will have a week to complete each assignment. You are expected to do your own assignments. However, some collaboration with other students is allowed and even encouraged. The following types of collaboration are allowed:

* Discussing strategies for solving a problem
* Explaining why a Web page does not work
* Reviewing and testing someone else's Web pages
* Using HTML and JavaScript code provided by the instructor and texts

The following types of collaboration are not allowed:

* Copying someone else's work
* Telling someone what code to write

Engaging in these last two types of collaboration will be considered a violation of the university's policy on academic integrity. Violators will receive a zero for the corresponding assignment and will be reported as required by the policy.

Engaging in these last two types of collaboration will be considered a violation of the university's policy on academic integrity. Violators will receive a zero for the corresponding assignment and will be reported as required by the policy.

Assignments will be accepted up to two days after the due date. 15% penalty if you submit your assignment less than a day past the due date given. Additional 15% penalty (30% total) if you submit your assignment more than a day past the due date given. Assignments submitted more than 2 days after the due date will **not be accepted**. There will not be any extra credit opportunities in the class.

Make sure you submit the correct version of your assignment. It’s your responsibility to turn in the correct work for each assignment. Saying you turn in the wrong assignment will not be considered as an excuse.

If you make changes to an assignment that you have already submitted, you are welcome to upload the newer version to D2L provided, of course, that it is uploaded before the assignment deadline. I will always grade your submission with the most recent timestamp in D2L.

All quizzes must be completed before the due date. Missing the due date will result in a grade of zero. You **cannot** make up quizzes.

**Communication**

If you have questions or you are struggling with anything with the class – no matter how minor -- let me know right away. Do not wait! These classes move quickly. Just like on a project, timely communication is vital to ensure things go smoothly.

**IMPORTANT DATES**

Last day to drop the course without penalty: Tuesday, September 21, 2021

Last day to withdraw from the course: Tuesday, October 26, 2021

**Respect for Diversity and Inclusion at DePaul University as aligned with our Vincentian Values**

At DePaul, our mission calls us to explore “what must be done” in order to respect the inherent dignity and identity of each human person. We value diversity because it is part of our history, our traditions, and our future. We see diversity as an asset and a strength that adds to the richness of classroom learning. In my course, I strive to include diverse authors, perspectives, and teaching pedagogies. I also encourage open dialogue and spaces for students to express their unique identities and perspectives. I am open to having difficult conversations and I will strive to create an inclusive classroom that values all perspectives. If at any time, the classroom experience does not live up to this expectation, please feel free to contact me via email or during office hours.

**Online Course Evaluations**

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student’s identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Please see https://resources.depaul.edu/teaching-commons/teaching/Pages/online- teaching-evaluations.aspx for additional information.

**Academic Integrity and Plagiarism**

This course will be subject to the university's academic integrity policy. All students are expected to abide by the University's Academic Integrity Policy which prohibits cheating and other misconduct in student coursework. Publicly sharing or posting online any prior or current materials from this course (including exam questions or answers), is considered to be providing unauthorized assistance prohibited by the policy. Both students who share/post and students who access or use such materials are considered to be cheating under the Policy and will be subject to sanctions for violations of Academic Integrity. It’s okay to ask a colleague to help you work out a bug or similar, but it is not acceptable for them to simply solve a problem for you. Similarly, it is not acceptable for two students to submit essentially an identical assignment with only cosmetic changes between the two. Each student must complete a unique assignment.

**Academic Policies**

All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading and incompletes can be found at http://www.cdm.depaul.edu/Current%20Students/Pages/PoliciesandProcedures.aspx

**Incomplete**

An incomplete grade is given only for an exceptional reason such as a death in the family, a serious illness, etc. Any such reason must be documented. Any incomplete request must be made at least two weeks before the final and approved by the Dean of the College of Computing and Digital Media. Any consequences resulting from a poor grade for the course will not be considered as valid reasons for such a request. Incompletes are only granted when the large majority of the course work has already been completed.

**Students with Disabilities**

Students seeking disability-related accommodations are required to register with DePaul’s Center for Students with Disabilities (CSD) enabling them to access accommodations and support services to assist with their success. There are two office locations:

* Loop Campus (312) 362-8002
* Lincoln Park Campus (773) 325-1677
* Email: csd@depaul.edu

Students who register with the Center for Students with Disabilities are also invited to contact Dr. Gregory Moorhead, Director of the Center, privately to discuss how he may assist in facilitating the accommodations to be used in a course. This is best done early in the term. The conversation will remain confidential to the extent possible.

Please see the [CDM Intranet](http://my.cdm.depaul.edu/courses/syllabus.asp?course=IS-430-901&q=3&y=2010&id=333) for general information about school policies.

**COURSE SCHEDULE AND TOPICS:**

Here is a summary of the course. Note that this is subject to tweaking – I will give you plenty of notice when something changes:

| **Session** | **Topics** |
| --- | --- |
| Week 1 | Course Overview  HTML, CSS, and Bootstrap Review |
| Week 2 | Creating a Node.js module,  Building a simple web server in Node.js |
| Week 3 | Handling incoming data,  Writing better routes and serving external files |
| Week 4 | Creating your first web application |
| Week 5 | Setting up an app with Express.js  Routing in Express.js |
| Week 6 | Connecting views with templates,  Configurations and error handling |
| Week 7 | Enhancing the Confetti Cuisine site with Express.js |
| Week 8 | Setting up a MongoDB Database, Building models with Mongoose |
| Week 9 | Connecting Controllers and Models,  Saving user subscriptions |
| Week 10 | Final Project due |

**Learning Domain Outcomes**

1.     Students will understand the major principles guiding modern scientific thought. Students will demonstrate a mastery of the science content knowledge of their SID courses.

2.     Students will know that science, technology, and math serve as mechanisms for inquiry into the nature of the universe. Students will:

a.     identify questions that can be answered through scientific investigations;

b.     design and conduct a scientific investigation to test a scientific hypothesis;

c.     use appropriate tools and techniques together, analyze, and interpret data to support or refute a scientific hypothesis;

d.     develop descriptions, explanations, predictions, and models using evidence;

e.     describe relationships between evidence and explanations using critical and logical thinking;

f.      recognize and analyze alternative explanations and predictions;

g.     communicate scientific procedures and explanations;

h.     use mathematics in all aspects of scientific inquiry.

3.     Students will understand and appreciate the interrelationships among science, technology and math. Students will:

a.     use technology and mathematics to identify a problem or design a solution to a problem;

b.     give examples of how science and technology inform and influence each other.

4.     Students will understand and appreciate the role of science in society and in their lives. Students will:

a.    provide examples of how science and technology impact our lives, and how social needs and concerns impact our development of technology and scientific investigation;

b.    develop positive attitudes towards science, technology, and mathematics;

c.    establish an ongoing experiential/service-learning interest in science, technology, and mathematics.

5.     Students will understand the nature of science, technology, and mathematics. Students will:

a.     provide examples of the abuse of science, including the representation of unfalsifiable claims as science and other forms of pseudoscience;

b.     explain the strengths and limits of scientific inquiry;

c.     explain the difference between evidence and inference, and the  provisional nature of scientific explanations by providing examples of how our understanding of the workings of the world has changed in the past;

d.     explain the difference between probability and certainty and describe what is meant by uncertainty in the context of science, technology, and mathematics.

**How Learning Outcomes Will Be Met**

Programming is a rigorous intellectual challenge that must be approached systematically with extreme attention to detail. The structure, grammar, syntax, and underlying theory must all be studied and reviewed to be able to not only apply the principles towards achieving a functioning program. Another very important skill is the ability to use programming to solve tasks that occur in the real world. For a web page, this might include tasks such as error checking, creating a working ‘shopping basket’, and so on. Even mathematical skills come into play whether it involves random number generation in a video game requiring simulated die rolls, or careful attention to the order of operations when putting together a complicated estimate from a reservations page for a travel agency’s website. All of these situations (or ones closely resembling them) will be required of students at some point in the course.

**Writing Expectations**

Writing is integral for communicating ideas and progress in science, mathematics, and technology. The form of writing in these disciplines is different from most other fields and includes, for example, mathematical equations, computer code, figures and graphs, lab reports, and journals. Courses in the SI domain must include a writing component where that component takes on the form appropriate for that course (e.g., lab reports, technical reports, etc.)

**How Writing Expectations Will Be Met**

In the course of the quarter, students will be required at times to provide clearly written summaries explaining some of the programming and web-design theories expounded upon during the course. The student will also be required to explain their own reasoning accompanied by specific examples from their own code and their interpretation of code found during the exploration of well-designed web pages created by others.

# **Other**

Attitude: A professional and academic attitude is expected throughout this course.  Measurable examples of non-academic or unprofessional attitude include but are not limited to talking to others when the instructor is speaking, mocking another’s opinion, sleeping, working on assignments for other classes, or cell phones ringing.

Civil Discourse: DePaul University is a community that thrives on open discourse that challenges students, both intellectually and personally, to be [Socially Responsible Leaders](http://studentaffairs.depaul.edu/sli/about/framework.asp).  It is the expectation that all dialogue in this course is civil and respectful of the dignity of each student.  Any instances of disrespect or hostility can jeopardize a student’s ability to be successful in the course.

Cell Phones / On-Call: If you bring a cell phone to class, it must be off or set to silent mode. Should you need to answer a call during class, students must leave the room in an undisruptive manner. Out of respect to fellow students and the professor, texting is never allowable in class. If you are required to be on call as part of your job, please advise me at the start of the course.

Student responsibilities: Each student is responsible for their time management and for meeting the expectations in the syllabus. The instructor is not responsible for reminding students of assignment deadlines in class. In the event of an absence, it is the student's responsibility to contact the instructor regarding the absence and the topics covered in class. Students must keep up with any assigned materials for the class. Students must keep backup copies of all submitted assignments.