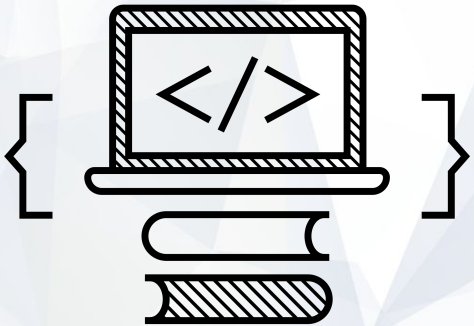
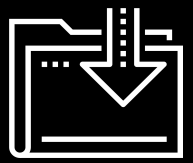


Syllabus

Software Development (Coding) Boot Camp



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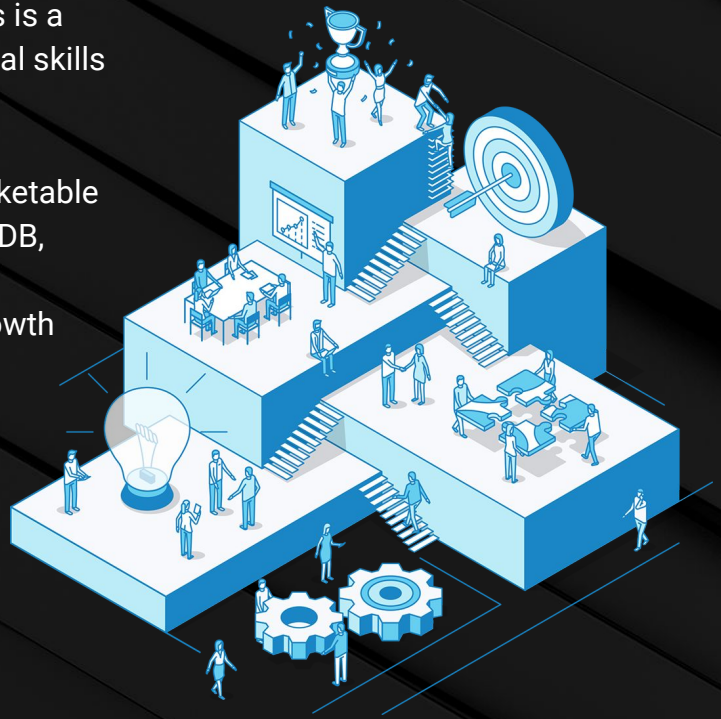
Software Development (Coding) Boot Camp Syllabus

Section 1: Course Overview

Welcome to the Software Development (Coding) Boot Camp! This is a rigorous and fast-paced course that teaches the practical, technical skills that will enable you to build robust web applications.

Throughout the course, you will gain proficiency in numerous marketable technologies, including JavaScript, TypeScript, Node, SQL, MongoDB, Python, and React. Additionally, you'll finish with an impressive professional portfolio and the confidence to succeed in a high-growth profession.



Course Outcomes

By the time you graduate, you will be able to:

- Create visually-compelling interactive page layouts using the three primary languages of the web: HTML, CSS, and JavaScript.
- Create single-page React applications with RESTful routes and CRUD operations to demonstrate how full-stack applications function within the Model-View-Controller design pattern.
- Build AI-assisted prompt engineering applications and use AI tools while coding.
- Explain and apply the concepts of object-oriented programming within the context of both the Node.js and Python back-end programming languages.
- Implement different types of databases – SQL and NoSQL - to persist data.
- Create and run unit, component, integration, and end-to-end tests to ensure quality assurance throughout the software development process.
- Create, control, and orchestrate the services in a CI/CD pipeline to automate the continuous integration phase and automate unit tests during the build stage to create continuous delivery.
- Develop apps while applying the accepted and standard basics of social coding – source control, issue tracking, functional feedback, etc. — to contribute to the development community.
- Collaborate as both a teammate and independent contributor through the entire development cycle of complex projects to prepare for software development teams.

Curriculum

The Software Development (Coding) Boot Camp is divided into three phases, which are organized into weekly modules. Each section culminates with a group project that spans two weeks.

Unit	**Section 1: Foundation** (Modules 1–4)	**Project 1** (Modules 5–6)	**Section 2: Technical** (Modules 7–14)	**Project 2** (Modules 15–16)	**Section 3: Performance** (Modules 17–22)	**Project 3: Final Project** (Modules 23–24)
Description	The first phase equips you with the fundamental concepts of web development, covering HTML, CSS, and JavaScript, as well as command line fundamentals and Git version control. You'll also begin working with AI-powered tools.	Develop a complex client-side web application using GitHub Pages; execute git branching workflow in a collaborative project; explain the agile development process; resolve merge conflicts; create a repository README for your project; prepare and deliver a professional presentation as a project team.	In the second phase you learn the skills necessary to engineer a full-stack web application, working with servers, databases, and other back-end technologies, and connecting them to the front end. You'll also continue working with AI-powered technologies, such as Open AI and LangChain.	Develop and deploy a complex full-stack application with a project team, using the MVC paradigm to create a server-side API, a React front end, add user authentication, and connect to a database; prepare and deliver a professional presentation.	Learn cutting-edge tools to optimize applications for speed and efficiency and begin your transition into a new career as a web developer.	Build a complex full-stack single-page application with a project team, using either the MERN (MongoDB, Express.js, React, Node.js) stack or replacing Node.js and Express.js with a Python back end; prepare and deliver a professional presentation demonstrating the application.
What You'll Learn	• HTML and CSS • JavaScript • Terminal Commands • DOM Manipulation • Browser APIs • GitHub Copilot	• Team collaboration • Agile development • Project demonstration and storytelling	• Node.js • TypeScript • Prompt Engineering • Object-oriented programming • Single page React apps • SQL • MVC paradigm	• Team collaboration • Agile development • Project demonstration and storytelling	• React • NoSQL • MERN Stack • Testing • CI/CD Pipelines • Python fundamentals • OOP with Python	• Dreaming up something fantastic • Understanding the bounds of reasonable and achievable

Section 2: Course Structure

Learning Experience

Each week of your course is structured around a specific topic and set of skills. The course is designed to help you master those skills. Each week you will do the following:

Review Online Materials	Attend Live Online Classes & Office Hours	Submit Weekly Challenges
Start each week by reviewing the online materials on Bootcamp Spot. These materials introduce you to what you'll learn during the week, provide you with additional support resources, and explain the weekly Challenge requirements.	You will have instructor-led virtual classes every week via Zoom. Your instructor will engage you with industry relevant lectures and hands on activities during these classes. Arrive ready to participate. In addition, you'll have opportunities to attend Office Hours led by your instructor and/or TA.	Cap off the week by demonstrating the skills you learned by submitting the Challenge assignment. Challenges are graded assignments on which you will get feedback.

Live Online Classes

During the live online classes, your instructional team will lead demonstrations, as well as guide you through independent activities and interactive group work in breakout rooms. You will work through a variety of activities, participate in industry relevant discussions while learning from experts in the field.

It's important to review the online material in Bootcamp Spot to complement your classroom experience. Office Hours are the ideal time to receive supplemental learning opportunities and individualized support from the instructor and TAs.

What do I need to know about live online classes?

- Classes are 3-hour long classes on Zoom.
- Open Office Hours are held before every class.
- You can miss no more than 4 classes.*
- Class recordings are available in Bootcamp Spot.

How do I prepare for class?
Check out your Getting Ready for Class page in Bootcamp Spot for downloadable class activity files to use during class.

** Please contact your Student Success Advisor should you have any questions regarding the attendance requirements.*

Learning Technology

The live online boot camp learning experience is centered on the following three technologies:

Bootcamp Spot	Our learning environment Bootcamp Spot is built on the leading cloud-based Canvas Learning Management System. This is your main hub for course objectives, resources, and assignments.
Slack	Slack, the popular business collaboration tool, is our core learning community space. On Slack, you will communicate with peers and instructional staff to celebrate victories and troubleshoot challenges. You can access Slack through your web browser or install the app on your computer and/or mobile device.
Zoom	Zoom is where we hold the live online classes. This video conferencing software allows us to connect in real-time with video, audio, screen sharing, and chat. You will access Zoom directly through the course. Be sure to have your headset with mic and webcam ready. We also highly recommend using a second monitor during these sessions so that you can practice coding as you interact with your classmates.

Minimum Technology Requirements

To successfully use the tools and technologies required in this course, you need the right equipment.

Here's what you need to get started:	Here's what you'll need before your first virtual session:
Laptop with Mac or Windows operating system (Note that you cannot use Linux in this course.)	Webcam
8 GB RAM and 64-bit dual processor	Headphones with a microphone
High-speed internet connection (We recommend a download speed of at least 25 Mbps and an upload speed of at least 5 Mbps.)	An external monitor that is compatible with your laptop (highly recommended for Zoom sessions)

Course Feedback

We believe in continually improving our program, whether it's building in more targeted practice to support your learning, adding new content to address the evolving needs of a dynamic industry, or providing your instructor with innovative ideas to tailor the experience for your class. For this reason, we ask for your feedback at the end of each module, at the course midpoint, and at the end of the program. We appreciate your honest responses.

Section 3: Course Assessments and Requirements

Grading Policy

For each assignment, you will receive a numerical and letter grade as shown in the following table. You will receive an Incomplete for assignments that do not meet the baseline requirements. All assignments that do not receive Incompletes count toward graduation requirements. See your enrollment agreement for the minimum grade requirements.

A+	100	**B+**	88–91	**C+**	78–81	**D+**	70–71	**F**	< 61
A	95–99	**B**	85–87	**C**	75–78	**D**	65–69		
A–	92–94	**B–**	82–84	**C–**	72–74	**D–**	62–64		

Assessment Criteria

You will receive an overall grade for the course based on the following. Note that your two lowest Challenge assignment grades (or skipped assignments) will be dropped.

Assessment	Description	Number	% of Final Grade
Projects	Each of the three sections culminates in a group project where teams apply key technologies learned in that section to build dynamic applications.	3	60%
Challenge Assignments	Weekly individual assignments where key skills learned in a module are applied. You will receive rubric-based feedback, and the lowest two grades will be discarded.	18	40%

Graduation Requirements

Graduates of the program will receive a certificate of completion from the university.
In order to graduate from this course and receive your certificate, you must:

01 Miss no more than 4 classes.

02 Complete all projects.

03 Miss no more than two challenge assignments.

If your university requires additional graduation requirements, these will be communicated out to you by your Student Success Advisor during the first week of class.

Please contact your Student Success Advisor with any questions regarding attendance requirements.

Section 4: Support

Overview of resources and support

Support Team

Student Success Team (SSA)

- Attendance and Course Requirements
- Navigating Concerns
- Time Management and Success Planning

Instructional Team

- Academic Concerns and Support
- Hosts Office Hours
- Grade Submissions

Central Support

- Technical Issues with Canvas(BCS)
- Trouble Accessing the Live Classroom
- Technical Errors Submitting an Assignment

Resources

1. Xpert 24/7

Xpert is available **24 hours a day** in **BootCamp Spot** to answer detailed questions about the course material.

2. AskBCS

Learning Assistants (LAs) are available to assist when Xpert isn't able to. Access LAs via **AskBCS app** in your class **Slack** Workspace.

3. Office Hours

Office hours are held before and after each class. Designated time for learners to ask questions, receive support with challenges, or review specific lessons. Support provided by Instructional teams.

4. Tutoring

Tutoring is limited and sessions are available on a first-come, first-served basis.Tutors provide assistance with broader topics that go beyond a single error or question, including diving deeper into the course content

Section 5: Expectations and Policies

Time Expectations

You should expect to spend about 20–30 hours a week working on your course; though, the actual amount of time you spend will depend on a number of factors, including your pace, difficulty of the week, and attendance at optional sessions. In general, Challenge should take 5–15 hours. It's a good idea to track yourself early in the course to identify how long you spend on each section and adjust expectations accordingly.

Late Assignment Policy

All weekly Challenge assignments are due at the end of the last class of the following week. It's important that you follow these dates to stay on target and receive timely feedback. The program moves fast, so you will find it very difficult to catch up if you fall behind. You may skip two Challenge assignments if you wish. In those cases, simply "submit" the assignment as a statement that you are skipping it. You must submit all work by the last day of the course.

Prerequisites

There are no prerequisites for the course. However, you must have fundamental computer skills and be comfortable using the internet. This course covers the skills common used by developers and demanded by the industry. You are not required to have any coding experience, but you should be ready to learn how coding languages work.

Communication Guidelines

At times, a boot camp can be stressful as you fight to crack the code of emerging skills. Therefore, it's important to be mindful of the needs of your peers and support teams and be courteous in how you communicate. This is especially true in online communication spaces such as email or Slack, where it's easy to misinterpret comments. Consider the following communication guidelines:

- Use encouraging, supportive tones when interacting with peers.
- Try to help peers who are stuck on a topic.
- Take opportunities to thank your support team for their help.
- Avoid yelling, sarcasm, and abusive language directed at peers or support team members.
- Be clear and specific in all of your help requests. Include screenshots and locations for content trouble spots so that your TAs and peers can assist efficiently.

Expectations and Policies

Code of Conduct / Academic Honesty	You are expected to work independently on all of your assignments and quizzes and submit your own work. Any violations of the university's academic honesty policy may result in your removal from the program. Please consult with your program success manager if you have any questions about the university's policy.
Drop Policy	In the event you are not able to take the course, you can drop within the timeframe outlined in your enrollment agreement and receive a refund of the balance paid beyond the non-refundable deposit. After the first full week, you are required to fulfill your tuition payments regardless of your status in the course. If you wish to drop, you must contact your SSA.
Tutoring Policy	For more information about tutoring, review Tutoring Guidelines for Learners.
Career Services Policy	Your career team is accessible to students from the start of their program. Navigate to the "Career Services" tab to get more information. • Career Engagement Network (CEN): Upon enrollment, you gain access to the Career Engagement Network – which includes asynchronous learning resources, online career events, and a curated job board. • Career coaching and material reviews: From day one of your boot camp, you have access to professional material reviews and one-on-one career coaching. These services are available throughout your boot camp and up to 3 months post-graduation. Email the career team anytime during your program and after at cssupport@bootcampspot.com (or cssupportaustralia@bootcampspot.com for Australian students).

Accessibility and Privacy Policies

Our program is designed to make learning accessible to all students. We optimize content for screen readers and use captioning on videos, and our technology and course design meets WCAG 2.0 standards. If you require additional assistance, please reach out to your PSM.

The following links display the accessibility policies for technology used in the course:

- Canvas
- Slack
- Zoom
- Learnosity

The following links display privacy policies for technology used in the course:

- Canvas
- Slack
- Zoom
- Learnosity