

# Online Coding Boot Camp Syllabus

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# Online Coding Boot Camp Syllabus

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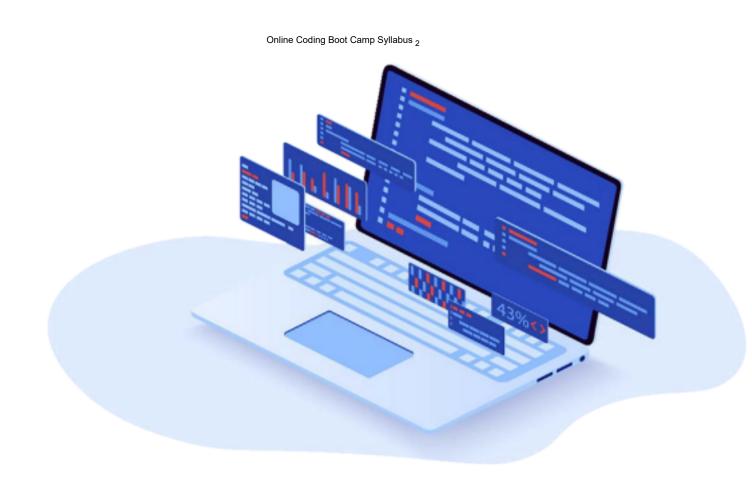
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# **SECTION 1**

Welcome to Online Coding! This is a rigorous and fast-paced boot camp that focuses on the practical technical skills needed to build robust web applications. Throughout the course, you will gain proficiency in numerous marketable technologies, including JavaScript, Node, SQL, MongoDB, React, and more. Additionally, you'll leave with an impressive professional portfolio and the confidence to succeed in a high-growth profession.

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#### **Course Outcomes**

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

- Build front-end websites from scratch as well as with ready-made frameworks that leverage pre-existing frameworks to build with efficiency.
- Create full stack single-page web applications with RESTful API routes and AJAX methods and describe how front-end applications communicate with back-end applications and databases.
- Implement different types of databases—structured and unstructured—to convert static websites into dynamic websites that persist data.
- Build communication skills and demonstrate foundational knowledge required during technical interviews.
- Apply the accepted and standard basics of social coding—including source control, issue tracking, and functional feedback—as part of a development
- Demonstrate strong teamwork and project management skills as a collaborator and independent contributor during the development cycle of complex projects.

# **Course Overview**

# Curriculum

The boot camp is divided into three equal phases that are organized into weekly modules: Foundation, Technical, and Performance. Culminating each section are group projects that each run for two weeks.

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Section 1: Foundations (Modules 1–6)	Build a solid foundation in fundamental concepts of web development: HTML, CSS, and JavaScript.	<ul> <li>HTML/CSS/Git</li> <li>APIs</li> <li>JavaScript</li> <li>JQuery</li> <li>Bootstrap</li> <li>JSON</li> <li>The DOM</li> <li>AJAX</li> </ul>
Project 1: (Modules 7–8)	Apply your newly acquired skills to build a client-side application using third-party APIs.	<ul> <li>Team collaboration</li> <li>Agile development</li> <li>Project demonstration and storytelling</li> </ul>
Section 2: Technique (9-14)	Learn the necessary skills to engineer a full-stack application: servers, databases, and APIs	<ul> <li>Node         <ul> <li>MySQL</li> </ul> </li> <li>ES6         <ul> <li>MVC Paradigm</li> </ul> </li> <li>Object-Oriented         <ul> <li>Sequelize</li> </ul> </li> <li>Programming         <ul> <li>Testing</li> </ul> </li> <li>Express</li> </ul> <li>Agile Development</li>
Project 2: (Modules 15–16)	Bring together new technologies and concepts learned in section 2 to develop a full-stack application	<ul> <li>Team collaboration</li> <li>Agile development</li> <li>Project demonstration and storytelling</li> </ul>
Section 3: Performance (Modules 17–22)	Learn cutting-edge tools to optimize applications for speed and efficiency and begin your transition into a new career as a web developer.	Progressive

# **Project 3:**

Final Project (Modules 23–24)

Create a dynamic single-page application using the MERN stack.

- Dreaming up something fantastic
- Understanding the bounds of reasonable and achievable

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**SECTION 2** 

## **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:

## 1. Complete Online Lessons

Start each week by diving into the online lessons on **Bootcamp Spot**. The lessons are designed to introduce you to the week's skills within a real-world context through videos, text-based readings, skill-based activities, and interactive activities.

#### 2. Attend Virtual Classes & Office Hours

You will have two instructor-led virtual classes each week through Zoom. These classes are designed to build on the online lessons so be sure that you have made good progress on the lessons to get the most out of these classes. In addition,

you'll have opportunities to attend Office Hours led by your instructor and/or TA.

### 3. Submit Weekly Challenges

Cap the week off by demonstrating the skills you learned by submitting the Challenge assignment. Challenges are graded assignments for which you will get feedback.



#### **Virtual Classes**

During virtual classes, your instructional team will lead demonstrations, as well as guide you through independent activities and interactive group work in breakout rooms.

The work you do in your virtual classes builds on what you cover in **Bootcamp Spot**, so make sure to dig into the material as soon as possible. Virtual classes give you a chance to level up your skills by using what you learn in Bootcamp Spot and getting hands-on practice with the guidance of industry professionals.

#### What do I need to know?

- 2-hour long classes on Zoom
- Open office hours before each class
- You can miss no more than 8 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 and details on which lessons to complete before each class.

# Course Structure

# **Learning Technology**

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



Our learning environment Bootcamp Spot is built on the leading cloud-based Canvas Learning Management System. This is your main hub for all course curriculum and assignments.



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 is where we hold all virtual 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 having a second monitor during these sessions so that you can practice coding as you interact with your classmates.

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Course Structure



# **Minimum Technology Requirements**

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

	The art are equipment.
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.



# **Grading Policy**

For each assignment, you will receive numerical and letter grades 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 any minimum grade requirements.

100	78–81
95–99	75–78
92–94	72–74
88–91	70–71
85–87	65–69
82–84	62–64
	55–61
	<55

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# Course Assessment & Requirements

#### **Assessment Criteria**

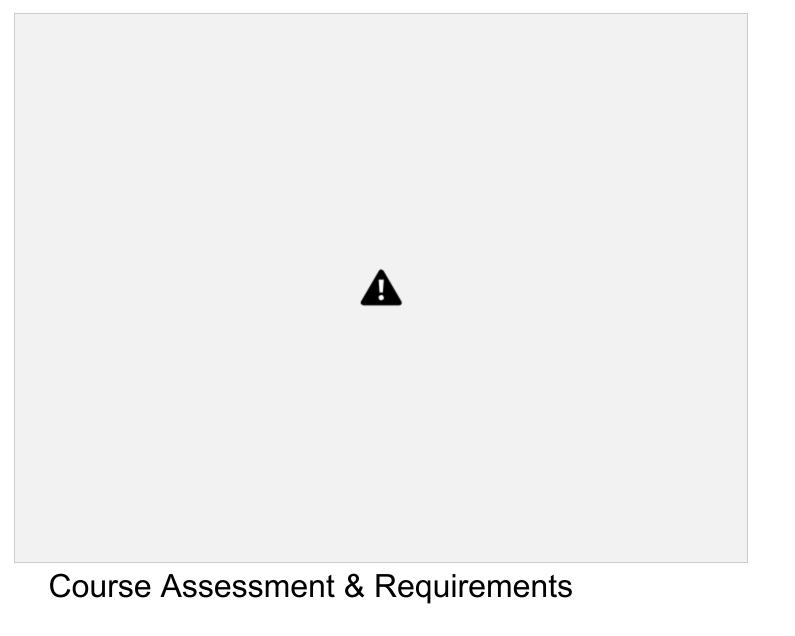
You will receive an overall grade for the course based on the following. Note that your two lowest

Challenge assignment scores (or skipped assignments) will be dropped.

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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%

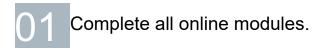
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# **Graduation Requirements**

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:





Miss no more than eight required

virtual classes (via Zoom).

Complete all projects.

Miss no more than two challenge assignments.

# **SECTION 4**

# **Your Support Community**

We believe that a robust support team is essential to helping you achieve success in the program. Below are the core members of your team:

program. Below are the core members of your team:				
Instructor	Your instructor is the lead facilitator for your learning experience. Your instructor will manage all virtual classes and office hours, guide the TA team, and monitor your progress.			
Teaching As sist ant s (TA s)	TAs provide support and guidance. TAs attend virtual classes, helping troubleshoot issues and lead small breakout groups. TAs also provide additional office hour sessions on Zoom.			
Student Success Manager (SSM)	Your SSM oversees your experience and assists you with any non-curriculum needs, including questions about course structure, delivery, or policies. If you don't know where to go, who to ask, or what to do, ask your SSM!			
Learning Assistants	The Learning Assistant team is available to answer quick coding & concept questions via Slack outside of class hours. Simply use the #AskBCS tool in Slack to connect.			
Tutor Network	If you need additional help to get back on track, your SSM can arrange 1:1 tutoring support.			
Your Peers	You'll chat with other students, ask for help, and assist others in class and Slack. You'll also connect in group projects and study groups.			
Career Services	Your Career Director and Career Materials Advisors will support you in becoming employer competitive. Career Services is an optional service available throughout the program.			



## **Tips for Success**

We're excited that you've committed to the Product Management Boot Camp. It may be difficult at some points, but with your dedication and our support, you will have the tools you need to thrive.

- Establish your weekly schedule upfront. Identify a safe, quiet place to work and discuss your plans with family and friends to ensure you get the needed support.
- Sync your class calendar to your phone or web calendars so that your assignment and virtual class dates are always handy. Your learning environment contains an easy iCal link.
- Start the online lessons early to give you ample time. Some weeks may be harder than others depending on the topics covered. It helps to know what to expect early.
- Attend as many Office Hour sessions throughout the week as you can.
- Remember that you are not alone, especially early on in the course. If you are struggling, it
  means that others are too. Make connections. Help your peers and ask for their help as
  needed. Set up a study group.
  - Connect with your Student Success Manager (SSM) for any non-curriculum support. Your SSM
    is entirely dedicated to your success and can guide you with any support you need.
- Focus on the big picture—beyond the specific skills of the week. A key element of this boot camp is "learning how to learn." Skills will change as technology changes, but the critical thinking techniques you learn in this course will help you evolve with the field.
- Celebrate your wins and those of your peers. If you're feeling proud of a creation or a hurdle you've overcome, share it in Slack!



## **Time Expectations**

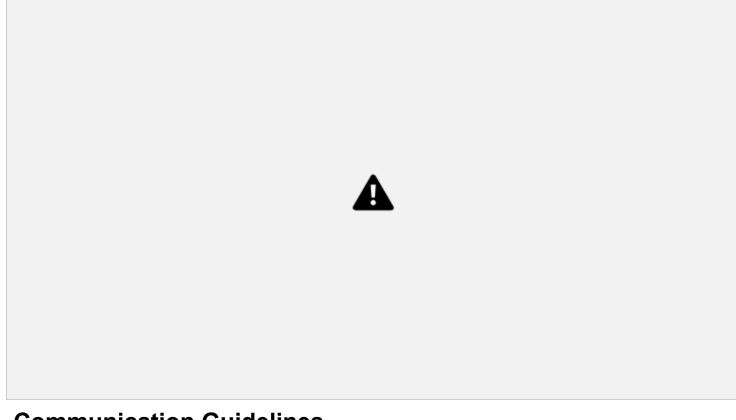
You should expect to spend around 20–30 hours a week working on your course; though, the actual amount of time you spend will depend on a number of factors, including your pace, difficulty of the week, and attendance at optional sessions. In general, online lessons should take an average of 10–15 hours a week and the weekly challenge should take 5–10 hours a week. You will want 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 11:59 PM university time on Sundays. 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 and. This course covers the skills common among developers and demanded by industry. You are not required to have any coding experience, but 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 troublespots so that your TAs and peers can assist efficiently.

# **Expectations & 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 your balance paid. 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 SSM.

## **Tutoring Policy**

We offer tutoring for students who need additional support through one-on-one, 50-minute remote online sessions. While this service is included with tuition, you must be in good standing with class attendance, payment, and assignment submissions to qualify for tutoring. Students are granted one session per week during the course. You cannot accrue additional sessions nor can they be held after the graduation date.

Failure to show up for a scheduled tutoring session will result in ineligibility for future tutoring. Cancellations for a tutoring session must be made at least six hours prior to the call.

## **Career Services Policy**

Career Services strives to help you become employer competitive. They offer support via a Career Materials Advisor, Career Director, in-person demo days, and online workshops and events.

You will have access to 1:1 career coaching with your Career Director from the first day of class until 90 days after graduation.

The Career Materials Advisor will respond within 96 business hours and your Career Director will respond within 24 business hours.

# **Expectations & Policies**



# **Accessibility & 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





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