

Online Coding Boot Camp **Syllabus**

Online Coding Boot Camp Syllabus

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SECTION 1

Course Overview

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.



Course Overview



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 community, while building an application.
- 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 3 equal phases that are organized into weekly modules: Foundation, Technical, and Performance. Culminating each section are group projects that each run for 2 weeks.

| Unit | Description | What You'll Learn |
|--|--|---|
| Section 1: Foundations (Modules 1–6) | Build a solid foundation in fundamental concepts of web development: HTML, CSS, and JavaScript. | <ul style="list-style-type: none">• HTML/CSS/Git• JavaScript• Bootstrap• The DOM• APIs• JQuery• JSON• AJAX |
| Project 1: (Modules 7–8) | Apply your newly acquired skills to build a client-side application using third-party APIs. | <ul style="list-style-type: none">• Team collaboration• Agile development• Project demonstration and storytelling |
| Section 2: Technique (9–14) | Learn the necessary skills to engineer a full-stack application: servers, databases, and APIs | <ul style="list-style-type: none">• Node• ES6• Object-Oriented Programming• Express• MySQL• MVC Paradigm• Sequelize• Testing• Agile Development |
| Project 2: (Modules 15–16) | Bring together new technologies and concepts learned in section 2 to develop a full-stack application | <ul style="list-style-type: none">• Team collaboration• Agile development• Project demonstration and storytelling |
| 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. | <ul style="list-style-type: none">• Progressive Web Apps• React• NoSQL• MERN Stack• Computer Science Fundamentals |
| Project 3: Final Project (Modules 23–24) | Create a dynamic single-page application using the MERN stack. | <ul style="list-style-type: none">• Dreaming up something fantastic• Understanding the bounds of reasonable and achievable |

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. Expect to take around 10–15 hours to complete one week of material.

2. Attend Virtual Classes & Office Hours

You will have two virtual classes (one required, one optional), plus a number of TA-led Office Hour sessions available to you each week through Zoom. Instructor-led virtual 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. TA Office Hours are designed to let you ask questions and get extra help on the weekly material.

3. Submit Weekly Challenges

Cap the week off by demonstrating the skills you learned. The Challenge assignment should take around 5–10 hours each week. This is a graded assignment.

Course Structure

Course Schedule

Modules typically span one week. During Thanksgiving and Winter Break, however, you will have an extra week to complete modules. Schedules for optional and required virtual classes may be adjusted for standard U.S. holidays. The support team will not be available on these days. Refer to the calendar in your online course space (Bootcamp Spot) for alternative scheduling of these sessions.

| Holiday List |
|---|
| New Year's Day |
| Martin Luther King Jr. Day |
| Presidents' Day |
| Memorial Day |
| Independence Day |
| Labor Day |
| Thanksgiving Break (Day Before and Day After) |
| Winter Break (December 26–31) |

Course Structure

Introduction to Course Technology

Our program incorporates cutting-edge technologies for learning and web professionals, including:

Bootcamp Spot



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



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 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.

Course Structure



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 Structure



Surveys and Data

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 Assessment & Requirements

Assessment Criteria

This boot camp is designed around weekly graded deliverables in order to give you regular, direct feedback. 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.

| | | | |
|----|--------|----|------------|
| A+ | 98–100 | C+ | 78–79 |
| A | 93–97 | C | 72–77 |
| A– | 90–92 | C– | 70–72 |
| B+ | 88–89 | D+ | 68–69 |
| B | 82–87 | D | 62–67 |
| B– | 80–82 | D– | 60–62 |
| | | F | < 60 |
| | | I | Incomplete |

Course Assessment & Requirements

Assessment Criteria

You will receive an overall grade for the course based on the following:

| 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% |

Course Assessment & Requirements

Attendance Requirements

There are two real-time virtual classes each week, run by your instructor and teaching assistants, delivered via Zoom. Virtual classes are the ideal place to connect with instructors, work alongside classmates, ask questions and stay on-track for success. All virtual classes are available on your class calendar and are recorded for easy reference; if you miss a virtual class, you are required to view the recording.

| | |
|--|---|
| Virtual Class (Required) One 3-hour session/week | <p>In the required virtual classes, your instructor will lead interactive coding activities to practice key topics and skills from the week and prepare the class for the upcoming Challenge assignment.</p> <p>This required session is the second scheduled weekly class. Aim to complete ~50% of the online lessons before attending the virtual class to maximize your learning in this class. This time includes 30 minutes before and after class for optional office hours.</p> |
| | <p>Attendance: This session is required. You can miss up to four required virtual classes and still graduate.</p> |
| Virtual Class (Recommended) One 2-hour session/week | <p>In the recommended virtual classes, your instructor will answer class questions, ensure that key coding topics are well understood, and build connections to careers in the software engineering field.</p> <p>This class is held earlier in the week. Be sure to start your online lessons (aim for ~25%) before the class in order to maximize your learning. Though it is optional, attending the virtual class is strongly recommended for optimal success in the course and in your job search.</p> |
| | <p>Attendance: This session is optional, but highly recommended</p> |

Course Assessment & Requirements



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

Complete all online modules.

02

Miss no more than four required virtual classes (via Zoom).

03

Complete all projects.

04

Miss no more than two challenge assignments.

SECTION 4

Support

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:

| | |
|----------------------------------|---|
| Instructors | The 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 Assistants (TAs) | TAs provide support and guidance, as well as critical feedback and evaluations on your submissions. TAs attend virtual classes, helping troubleshoot issues and lead small breakout groups. TAs also provide additional office hour sessions on Zoom throughout the week. |
| Program Support Manager | Your PSM oversees your classroom experience and assists you with any non-curriculum needs. |
| Learning Assistants | The Learning Assistant team is available to answer quick coding & concept questions via Slack outside of class hours. Simply use the /ask command in the learning-assistant Slack channel to get your question answered. |
| Tutor Network | If you need additional help to get back on track, your PSM can arrange 1:1 tutoring support. |
| Your Peers | You'll chat with other students, ask for help, and assist others in class and Slack, and in live meetups. |
| Career Services | Your Career Director and Profile Coach will support you in becoming employer competitive. Career Services is an optional service available throughout the course and up to six months after graduation. |

Support



Slack Support

Slack is a community space where you can converse with classmates and ask TAs questions. The TA team will publish a calendar in Slack with hours for asynchronous remote support, a daily block of time in which TAs will review questions and help troubleshoot priority issues. We encourage you to follow the Read-Search-Ask method. If you get stuck, start by thoroughly reading the course content, then search for answers online (ask your instructional team for tips on places to search), and finally, ask your question in Slack if you are still stuck. Remember, the goal of the program is to train you how to think like a developer that has to regularly learn new technologies in the workplace.

Your Program Success Manager (PSM)

Your program success manager is your person-of-contact for any questions about the course structure, delivery, or policies. If you don't know where to go, who to ask, or what to do, ask your PSM!

Your PSM is available during standard business hours, and can be contacted through the channels available in the Help menu in your course.

Support



How to Be Successful

We're excited that you've committed to the Coding Boot Camp. It may be difficult at points, and you may doubt your abilities. However, we know that you can succeed and we have a strong support network in place to help you make that happen. With your dedication and our support, you will have the tools you need to thrive.

Tips for success:

- Create a schedule at the beginning of the course. Identify a safe, quiet place to work and discuss your plans with family and friends to ensure you get the support you need to be successful.
- Start the online lessons over weekends 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.
- Aim to complete at least 50% of the online-lesson material before the required virtual class to ensure you are ready to participate.
- Attend as many Office Hour sessions throughout the week as you can.
- Use the `/ask` command in Slack to ask specific questions of our learning assistants during supported hours.

Support



How to Be Successful (continued)

- Make sure you have all technology and computer requirements set up before the course begins.
- 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!
- Make connections. We encourage you to help your peers and ask for their help as needed. You may want to consider setting up a study group.
- Sync your class calendar to your phone or web calendars so that your assignment and virtual session dates are always handy. Your learning environment contains an easy ical link.
- Connect with your program success manager (PSM) for any non-curriculum support. Your PSM 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.” In other words, we want you to learn how to think like a web development professional. Required skills will change as technology changes, but the critical thinking techniques you learn in this course will help you evolve with the field.
- Remember that you are not alone, especially early on in the course. If you are struggling, it means that others are too. You are in this program because you can succeed.

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 challenges 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. We recommend that you have some basic experience with Excel and feel comfortable working with quantitative information.

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.

Expectations & Policies



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.
- Note the times that TAs are available to answer questions in Slack and consider their bandwidth.

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 PSM.

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.

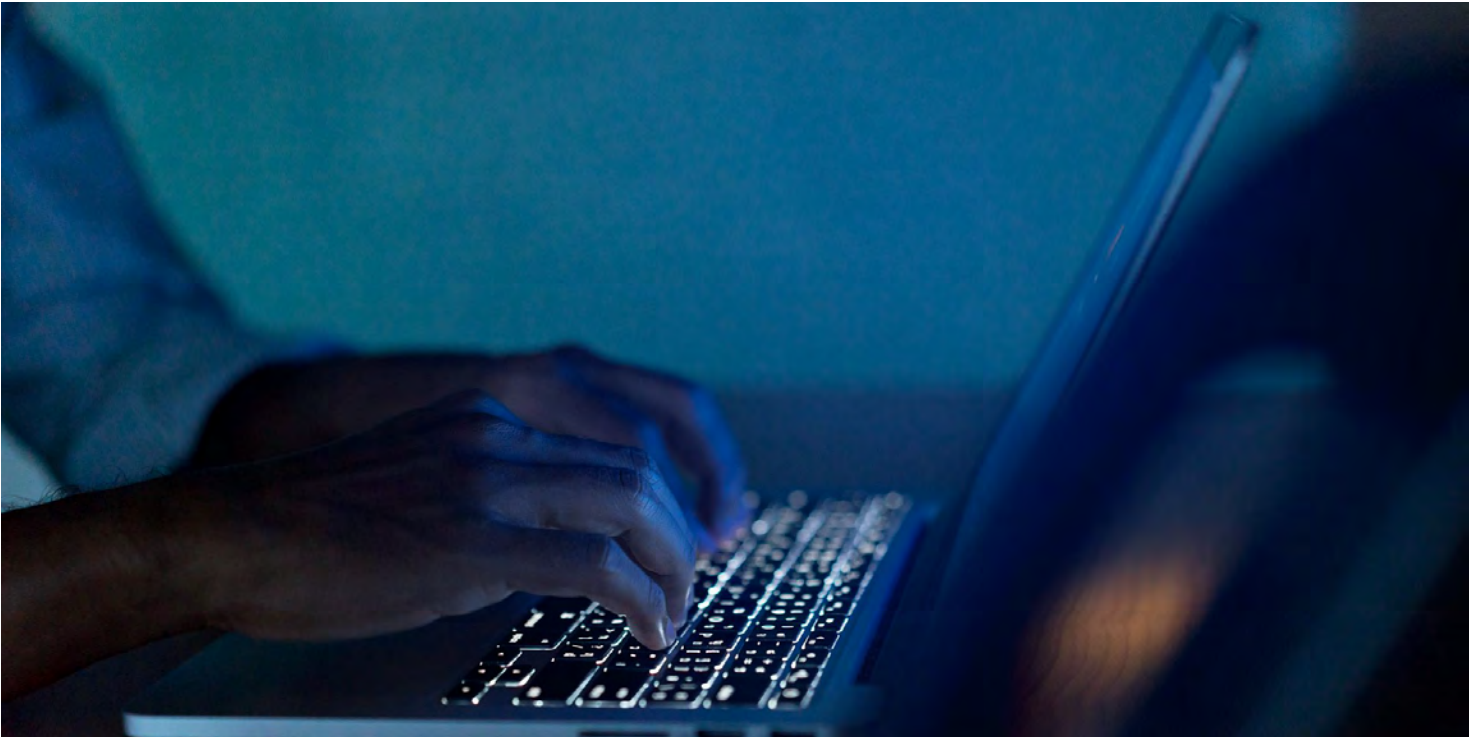
Career Services Policy

Career Services strives to help you become employer competitive. They offer support via a profile coach, career director, in-person demo days, and online workshops and events.

Students have access to 1:1 career coaching with their career director from the first day of class until 90 days after graduation.

The profile coach 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](#)
- [Zoom](#)
- [Learnosity](#)