# Front-End Web Development

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BEETROOT. ACADEMY

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#### **Course overview**



### **Duration: 4 months**

Intensity: **3 times a week = 8 hours of practice with the teacher every week\*** 

Total of 47 lessons = 126 hours of practice

\*This is practice only. Overall, you would need to allocate 20 hours a week to read the theory and complete home assignments.

## **Front-End Web Development**

#### **Requirements for students**

- Skills of working with browsers and search engines;
- Basic understanding of algorithms;
- PC requirements 2GHz Processor (min 2 core, 4 threads) 8GB RAM; 256 GB disk SSD; webcam (720p) and microphone;
- Coding experience is an advantage.

### **Optional:**

• Career Counseling - 4 hours after the course is finished.

## Teachers. Practicing specialists who care about students

- 1. All our teachers are Middle+ or Senior practicing specialists of their fields.
- 2. Each teacher passes three stages of the interview: assessment of technical skills, presentation of teaching skills, and testing for compliance with our values.
- 3.
- There are 70+ teachers in our community who help each other grow through in-house workshops, webinars, and knowledge sharing.



#### This is the course for you if...

#### You're starting or switching a career

You'd like to enter the IT world, and Front-End development suits your needs the best.

#### You've run into a dead-end with self-education

You may have tried web layout, you're following trends in development and paying attention to new tendencies. You'd like to gather your knowledge and advance your skills, understand what is relevant, and where to head next.

## You'd like to switch to development from another IT profession

You already know the field, have already tried to work in other IT specialties and want to go into development. Your goal is to understand where to start, get some relevant knowledge, and understand the different branches of development.

#### You're a PM, a BA or a Product owner

You're already working in IT and aiming to understand developers better. You want to speak your colleagues' language, gain technical knowledge to back up your decisions and comprehend the code.



### The studying process

#### Lesson flow



1. Theory – on your own

Videos, useful resources, homework, and tests are all in our LMS



2. Practice in group with the teacher



3. Do the home assignment





Analyzing questions about theory which the students studied independently via LMS and Beetroot Academy materials

Feedback on the homework from your teacher and an overview of typical questions



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Demonstration of practical cases and examples by the teacher

A practical assignment for the group. The teacher gives personal feedback to everyone



### Your weekly schedule\*



### An average of 20 studying hours a week\*\*

\*Please note that your schedule distribution may be different depending on what your group agrees on. \*\*This is the average amount of time per week for successful course completion. Some weeks would require more time than others.

#### Tools used in the course

Visual Studio Code is a source-code editor made by Microsoft for Windows, Linux and macOS. You can download a free version from <u>the official website</u>.

Git is a version control system to manage the changes in code you will write.

Figma and Photoshop\* are graphic editing software for working with design files. There will be design templates in these apps for you to develop the web layout.

\*Beetroot Academy recommends using free versions of all tools. Their trial versions are enough to complete the course successfully Core tools in the course:



Supplementary tools:









Module 1. HTML/CSS	 <b>23 topics</b>
Module 2. JavaScript	 15 topics
Module 3. Front-End	9 topics



### **Course program in detail**

## Module 1 HTML/CSS (23 topics, 56 hours)

- What is a website. Work process setup. Introduction to HTML.
- 2. Git
- 3. HTML5 tags
- 4. Introduction to CSS
- 5. CSS Box Model
- 6. CSS selectors
- 7. Figma
- 8. Fonts in web, Font Face
- 9. Flexbox
- 10. CSS Position Transform
- 11. Form building

- 12. Scalable Vector Graphics (SVG)
- 13. CSS Animation
- 14. CSS Grid Layout
- 15. Practice
- 16. Cross-browser compatibility
- 17. Post- Pre- Processors
- 18. RWD
- 19. Adaptive Graphics
- 20. Responsive navigation
- 21. SEO
- 22. Exam 1. A simple website for your portfolio

#### Course program in detail

#### Module 2 JavaScript (15 topics, 42 hours)

- 24. Introduction to JavaScript
- 25. Types of data and math functions
- 26. Loops and conditions
- 27. Functions
- 28. Objects
- 29. Arrays
- 30. Classes
- 31. Document Object Model (DOM)

- 32. Events
- 33. Introduction to jQuery
- 34. Slick Slider
- 35. AJAX
- 36. Customized maps with an example of Google

#### Maps API

- 37. Web Storage
- 38. Exam 2. Architecture basic web-site + JS

### **Course program in detail**

## Module 3 Front-End (9 lessons, 28 hours)

- 39. Gulp
- 40. Webpack
- 41. Introduction to JavaScript frameworks with
- an example of Vue.js
- 42. Vue.js: modifiers, events, and rendering
- 43. Vue components
- 44. Working with remote server
- 45. Website optimization
- 46. Front-End frameworks overview: Bootstrap,

Foundation

47. Exam 3 - A website using a framework

#### **Development tools in the course**





#### Your future CV will include

Education June 2022 – October 2022

Front-End Web Development course at Beetroot Academy

- Knowledge of HTML and skills of semantic markup
- Experience with Git and GitHub
- Skills in applying CSS-styles and visual effects to the layout
- Experience in creating CSS animations, transformations and using other styles

- Experience creating responsive websites
- Skills in using pre- and post-processors
- Experience with Figma
- Experience using JavaScript (primitives, objects, arrays, functions)
- Skills of working with basic JavaScript tools



- Ability to work with console and DevTools, check the code for errors, perform debugging
- Experience with manipulating the DOM tree
- Experience working with web servers
- Knowledge of the logic of client-server architecture when building applications
- Experience in creating web applications with Vue.js

Information about the Authors

## Oleksii Kalyuzhny

10 years of professional working experience

Skills and technologies: HTML; CSS; WordPress; JavaScript; Joomla; AJAX; Git; Lamp; MySQL; PHP; Joomla;



### Information about the Authors

## **Oleksandr Vasiliev**

9 years of professional working experience

Skills and technologies: Git, Gulp, Webpack, TypeScript, WordPress Projects and companies: Kinect application for McDonald's for the 2012 UEFA European Championship, Interactive Floor Platform



#### **Career Counseling**

#### Graduation

After mastering the technical skills in the course, your next step in building a successful IT career would be to create your CV and get ready for future interviews. Career counseling will help you be presentable in the eyes of a potential employer.

Benefits of Beetroot Academy Career Counseling:

- Understand what makes a successful CV and how to make one for yourself;
- Learn best practices of preparing for interviews and passing them;
- Find out what to look for when choosing an employer;
- Master business correspondence with recruiters and HRs

Before completing the course, students choose a topic to realize themselves as Front-End Specialists. One will decide to create a website for your portfolio; another will prefer to design an interface for a mobile application. Others will want to realize a SPA-application using the REST API, or not to waste time and show themselves as a novice freelancer and launch the first commercial project.

After the course, we share contacts of students and (if applicable) a video recording of final projects presentations with partner companies to promote employment. We take into account the students' consent for sharing personal data as well as their course results.

At the end of the course, you will receive an e-certificate of completion\*.

\*given you do the homeworks and the final project



#### **Beetroot Academy's Alumni**



### Yuliia Holub

Beetroot Academy is an excellent example of a new era of education where every teacher cares about students' development. Students' results and interests are a top priority. There's a

friendly atmosphere and no hierarchy.



## Artem Melnyk

Great school with individual approach to each student. If you want to learn something new or progress in a chosen field, this is the place for you. Highly recommend.



### Anton Tymoshenko

Super cool courses. Lots of interesting practical tasks. Exceptional team and great atmosphere. I'm grateful for the knowledge, experience, and networking.



### Olha Ivanytska

Four months of training flew by. It was so informative, friendly, and fun that I'm bound to want some more! Very grateful for a solid base and desire to never stop learning.

#### **About Beetroot Academy**

Beetroot Academy is an impact-driven IT school that helps people to start and improve their career in tech by offering reskilling and upskilling courses.

Since 2014, Beetroot Academy has educated 6,500+ graduates in Ukraine and Sweden.

We team up with businesses to equip teams or individual professionals with needed tech skills to reskill - change career path to face digitalization; and upskill - add on new competencies within tech.

Our educational courses consist of practical and intensive learning modules in a broad spectrum of tech domains suitable for a team or individual professionals.

#### beetrootacademy.com

## Trusted by recognized companies and institutions



#### Our advantages

#### Teaching Methodology

All course programs are developed by practicing specialists and meet the market requirements. We apply the flipped classroom method, where our students study theory at home, and then come to classes and practice with the teacher.

#### Agile, studentcentered Approach

Beetroot Academy is a Swedish-Ukrainian school. There is no strict hierarchy within our team, and we make sure to keep the atmosphere friendly. We want you to feel relaxed in class students and teachers are equal, and you can ask any questions.

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#### Social impact driver enterprise

Our goal is world-class high-quality IT education. Students are interviewed and tested - that's how we select the most motivated candidates. The course fees cover our expenses, and the income is invested in the Academy's further development.



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