

# **O**Academy

#### **Contents**

Hello	02
Student life	03
Inclusion	05
Curriculum	06
Career support	13
Fees and funding	15
How to apply	17



# Hello.



# Welcome to iO Academy. We're an award-winning coding bootcamp based in the South West, and we're here to get you into a career you'll love.

We understand that people like you want to take a different route to changing your career. And we're with you. We believe that a new approach is needed.

In 2015, we were set up by tech company Mayden. Not as a business, but as a way to solve a problem. Like so many tech companies all over the UK, they needed more developers; but there simply weren't enough. Not only that, but newcomers to the industry were often lacking the up to date, practical skills that were needed most.

That's where we came in.

As developers ourselves, we knew that lots of people have the potential to be fantastic coders, without even realising it. We also knew that the best tech teams are the ones where people have all types of backgrounds and personalities.

So we designed a course that would do just that - make great developers out of raw potential. A course that anyone, regardless of their background, can come out of as the sort of developer that tech companies want to hire: people who are motivated and love learning. Who relish solving problems and making things that work. Who care about contributing and working with others. Who have skills in up to date technology and coding best practice. The sort of person you enjoy working with each day.

Five years later, we're still here. Our students are taught by professional developers to industry best standards. Our graduates work in tech companies from Bath to Berlin. We've been recognised as world leaders in what we do. And we've continued helping people into careers they would never have previously thought possible.

We hope you'll be one of them. Are you ready to get started on your new path?

# Student life





## **Facilities**

For latest updates on COVID-19 please check our website.

While you are studying with us iO Academy is your second home, so make yourself comfortable. We're based in a beautiful Georgian townhouse in Bath, just a 10 minute walk from the station and city centre, and close to a great range of indie shops, pubs and cafés.

The kitchen has fantastic views over Bath, and is kitted out with the usual fridge, toaster, kettle and microwave. Most importantly, we'll lay on the tea and coffee to keep you fuelled, along with milk, sugar, spreads and bread.

The break out room is where we relax. Kick back on the comfy sofas with your classmates and get stuck into a board game, jigsaw puzzle, or competitive round of Mario Kart.

In warm weather, we make full use of the large garden at the back of the building. Have a cuppa under the fruit trees, do some mindfulness on the lawn, or sit in the sun with your team to do project planning for the week. There is also a bike rack if you plan to cycle in.



# Community

iO Academy is a friendly and social place to learn, with small class sizes meaning you become comfortable with your team quickly. Each week is finished at the local social club, where students can relax together after a week of learning, and we encourage you to get involved in the many tech meetups, hackathons and coding support groups in Bath and Bristol.

Online, all students, staff and alumni have access to the Academy's Slack, where you can share and find information, ask questions, or just chat. This is a good way to get to know our alumni. All students retain access to this support network after graduating, as part of our alumni community.

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My friend recommended this course, so I read the reviews and booked my place on a taster session. I loved the atmosphere that evening: positive, enabling and inclusive. The trainers and staff at iO Academy are open-hearted compassionate people who understand what it's like to start from scratch: the support is amazing.

- 2019 GRADUATE CHARLOTTE, SOFTWARE DEVELOPER AT MAYDEN

# Inclusion



#### **Diversity**

We aim to provide a positive learning environment for all students regardless of gender, sexuality, age, race, background or religion. Currently around half of our students are women, as well as half of our trainers.

We actively encourage a wide range of people to study with us for new careers in tech, and believe that the wider the range of people, the better the team. We are signatories of Tech Talent Charter and Tech She Can, and work with various other organisations to support diversity and inclusion.

#### **Mental health**

We are accredited as a Mindful Employer and have experience teaching students with a range of mental health and neurological needs, such as autism, ADD, PTSD, anxiety, and depression. If there is anything you are concerned about or need from

We are accredited as Disability Confident Committed, level 1

us for a positive learning environment, please let us know. We have an open attitude to mental health for both staff and students, and are always available to talk.

#### **Accessibility**

If you have access needs for the building or any other element of the course, please let us know, and we can talk about how we can best accommodate you. The building itself is not wheelchair accessible, comprising 3 levels accessed via stairs with front entrance and garden also using step access. The Grade I listing on the building means access alterations cannot legally be made, but we will work with students to provide physical and digital accessibility wherever possible.





# Curriculum



We work closely with the tech industry to plan our curriculum, continually updating and improving.
This means what we teach is always current, no matter how fast the tech world changes.

The Full Stack Track is not just about learning a language, or getting your first job as a developer. We ensure you understand the core principles of programming and use best practice from the beginning, so you'll have the ability to confidently learn new tech in the future and have a strong foundation for a great career.

### Ask a friend

Want to be certain you'll learn to a high standard but don't yet know what all of this means? Share our curriculum with someone who already works as a developer. They can assure you we teach everything you'll need.



# Week-by -week

#### WEEK 01

#### Learn: HTML, CSS and the web

Learn to build accessible static websites using HTML and CSS. We'll take a look at cross browser compatibility, user experience and browser dev tools. We will also learn about the internet, HTTP, Git, pair programming and code reviews.

- > HTML & CSS
- > Browser support
- Browser stack
- > Bash
- > UX
- > Git & GitHub
- > Pair programming
- > Code reviews

#### **WEEK 02**

#### **Build: Front-end portfolio**

Time to start your first full scale project! You'll be building a portfolio website ready to fill with the projects you complete throughout the course and beyond, showcasing your skills and personality – ready to take to potential employers when you graduate.

#### WEEK 03

#### **Learn: Introduction to programming**

This module will provide a solid foundation in programming principles. You'll learn basic language constructs, control flows, data-types and data structures. We will explore storing and retrieving data from various databases including MySQL using SQL, Neo4j and MongoDB. This will also be your first exposure to PHP, and we'll make sure you fully understand the underlying concepts.

- > IDEs-PHPStorm
- > Vagrant & Docker
- > Programming fundamentals
- > RDBMS
- > Indexes
- PDO & prepared statements
- > Neo4j
- NoSQL

#### WEEK 04

# Learn: Programming best practice Do: Agile training

This week you'll learn unit testing, coding standards, cyber security, and object-oriented programming. We'll also send you on your Scrum Master Certification training.

- > Coding standards
- > Unit testing
- > HTTP
- > Agile-Scrum
- > Web security
- Intro to OOP



#### WEEK 05

#### **Build: Collector app (PHP)**

Use your new skills in database design and programming to create a collector application, allowing users to store items in a collection and display them. Previous students have built collections of Pokémon, computer games, guitars and even house plants.

#### WEEK 06

#### **Learn: Introduction to JavaScript**

You already have the ability to build static websites with HTML and CSS - now it's time to learn JavaScript to make websites more interactive. We will look at DOM manipulation, AJAX, debugging and a few popular JavaScript libraries.

- > ES6
- > DOM manipulation
- > Browser events
- > JSON
- > AJAX
- The Web API
- JQuery



#### **Build: JavaScript game**

Everyone's favourite project. This week you'll be building a JavaScript based computer game. Working as part of a team, you'll learn about collaborative coding and the true power of Git.

#### WEEK 08

#### Learn: Advanced front-end

This week we'll take a deeper look at front-end technologies. Modern applications use so much more than just HTML and CSS. We will learn about CSS preprocessors, modern JavaScript methodologies, build tools, TypeScript and even make our own Progressive Web App (PWA).

- > SVG
- > Bootstrap
- > JavaScript templating
- Sass
- > Gulp
- > TypeScript
- > Browser APIs
- > PWAs





#### **WEEK 09**

#### **Build: JavaScript quiz app**

As a professional developer you're likely to spend some time working on existing applications. During this project you'll work on the iO Academy aptitude test application built by previous cohorts using modern JavaScript and a RESTful API, gaining valuable experience working with legacy code.

#### **WEEK 10**

## Learn: Advanced programming principles

You are now ready to take on some more advanced principles, including DRY and SOLID. We'll also explore object-oriented programming in more depth along with application architecture.

- > 00P
- Namespaces
- > Autoloading
- > SOLID
- > Design patterns
- > Regex
- More unit testing

#### **WEEK 11**

#### **Build: Listing app (PHP)**

This week, you'll build a complete, end-to-end application, implementing everything

you've learnt so far. Our focus will be on code quality and best practice, preparing you for life as a professional developer.

#### **WEEK 12**

#### **Learn: MVC and PHP frameworks**

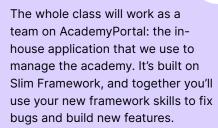
#### Do: Careers day

This week we take things to the next level by looking at PHP frameworks. You'll learn the principles and patterns behind modern frameworks, and gain the skills to pick up any modern framework with ease. Learn about MVC, factories, Dependency Injection Containers and much more. You'll also find out how to write a tech CV and get advice on programming interviews at our career advice day.

- MVC
- Dependency injection
- > DIC
- > Slim Framework

#### **WEEK 13**

## Build: Business management app (PHP)



# Choose your special track





By this time in the course, you'll know what you are interested in and can choose to specialise in **full stack JavaScript** or **complex problem-solving.** 



## Week 14

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#### SPECIAL TRACK 01

# In-depth JavaScript Learn: Node.js and architecture

This track will give you a comprehensive knowledge of full stack JavaScript. In elective week one, take a deep dive into backend JavaScript with Node.js, and learn about JavaScript application architecture, MongoDB, and creating REST APIs.

- > Node.js
- > REST
- > Express
- > NPM
- > MongoDB
- > Modular architecture

#### SPECIAL TRACK 02

#### Complex problem solving Learn: Node.js and React overview

This track introduces you to Node.js then goes on to dig into some more theoretical parts of programming. The first week covers React, Node.js and MongoDB, giving you a rounded introduction to the JavaScript ecosystem.

- Node.js
- > REST
- Express
- NPM
- > MongoDB
- React



## Week 15

#### SPECIAL TRACK 01

#### In-depth JavaScript Learn: React in depth

We'll spend a week learning about React, the most popular front-end JavaScript framework, ideal for high performance large scale applications.

- > React
- > React-router
- Component-based development
- > Architecture

#### SPECIAL TRACK 02

## Complex problem solving Learn: Complex problem solving

We'll focus on taking your programming and complex problem-solving skills to the next level. You will learn about advanced debugging techniques, Test Driven Development (TDD), advanced data structures and algorithms, and how to better optimise your code.

- Data structures
- > Algorithms
- > Memory management
- > TDD
- Advanced debugging techniques

#### BOTH TRACKS 01 & 02

#### Do: Meet tech companies at our hiring event

Now that you are on the home stretch, it's time to meet some employers. We'll put on an evening social where you can chat with local tech companies. You'll get to know what sort of company you'd like to work for, build your professional network, and hopefully score some interviews.

#### Week 16: Final week

#### **Build: Showcase project**

In your final week you'll join a team of four students to build your final project, and can choose where you want to focus: back end, front end, or full stack. This is your chance to really flex your skills and utilise everything you have learned in a stand-out project for your portfolio.



# Career

We aren't just here to turn you into a developer. We're here to help you get you a job as one.

#### **Hiring partners**

We work with a range of tech companies in Bristol, Bath, London and beyond, across all sectors, and of all sizes. Our hiring partners are invited to review our curriculum, give guest lectures, attend project sprint reviews, and of course, meet our students. We work closely with them to ensure what you learn is exactly what they need, and make sure you are introduced to the right people.

#### **Portfolio**

The Full Stack Track includes regular projects through the course. This embeds what you learn, but also means that you can prove your abilities to employers with your own portfolio site, git repositories, and impressive collection of projects.



### **Careers day**

In the later half of the course, we will take you through how to structure and write your developer CV, how to succeed in tech interviews and how to assess a developer job description, along with insight from our hiring partners on what they are looking for in an applicant. Following this you will write your CV, which will be reviewed by your trainer. Your trainer can also act as your referee if needed.

#### Hiring event

Towards the end of the course, we hold a hiring event for our students and hiring partners. In an informal setting, you will meet hiring partners with open roles or upcoming vacancies. These companies know that iO Academy graduates are skilled, motivated, and respected, and are keen to meet you.

#### **Continuing support**

Following graduation we continue sharing opportunities from hiring partners, tech companies, and agencies, and are still available to ask for advice and guidance if you need it. After several years of experience, when you are ready to move on to mid or senior roles, keep in touch and we'll help to connect you with hiring partners who are looking for developers at a more advanced level.



The Full Stack Track costs £11,000. This fee covers 16 weeks of full-time tuition in a class of 8, with over 600 contact hours with your trainer.

#### **Deferred payment**

The course fee can be paid up front, or with an interest-free deferred payment arranged through EdAid.

To be eligible for deferred payment, students must have the legal right to live and work in the UK, and have a UK National Insurance number, a UK bank account and a UK or EU passport. Any non-UK national must be able to prove they have been living and working in the UK for at least 2 years.

Deferred payment can be applied for after you have been accepted onto the course.



#### **Diversitech fund**

The Diversitech Fund offers a discount on course fees to people from groups that are underrepresented in tech. This includes people who identify as women or non-binary; Black, Asian and minority ethnic individuals; and those from disadvantaged backgrounds or living with other forms of adversity.

The fund is awarded on a discretionary basis, and may cover anything from several hundred pounds to the full course fee. Available funding varies, and depends on donations from our tech industry supporters. It can be combined with the EdAid deferred payment plan.

Students can apply for Diversitech after being accepted onto the course. Reply to your acceptance email letting us know you would like to apply. We'll then send you an online form which asks for details including protected characteristics, your finances, and a personal statement. Your application will be reviewed by the team and a decision sent to you within two weeks.

#### fill in. There are two areas for personal statements, which we advise answering as fully as possible. These ask why you want to become a developer, and if you

You don't need to have done extensive coding previously, but if you have done any online learning, attended a taster, tried some website editing or anything similar, please include it in your statement. We want to see that you have done enough to know this is a career you would enjoy.

have any coding experience.

#### **Assessment**

After receiving your application, we will be in touch to let you know the date for our next round of assessments. These are usually held on a Saturday, and occur regularly throughout the year. Assessments are currently being conducted remotely for social distancing. At other times they can be done remotely if you are not able to visit us in person.

Please let us know in advance if you have any communication needs we can provide adjustments for: for example if you are dyslexic, have English as a second language, or suffer with anxiety.

Your assessment will consist of a 20 minute talk with the trainers and a 30 minute problem solving test. The test will be sent to you several days prior to the talk to complete online. No coding experience is needed for the test and there is nothing to prepare, but you can look at logic puzzles and IQ tests if you would like to practice in advance.

Following your assessment, we'll let you know if you have been accepted onto the course within two weeks. If you aren't accepted the first time we will provide feedback and guidance on how to improve, and you are welcome to apply again.



#### **Dates**

We have start dates throughout the year and encourage you to apply for your preferred date as soon as you can, as places often fill quickly.

- 01 March 2021
- 04 May 2021
- 05 July 2021
- 31 August 2021

## **Entry requirements**

There are no educational prerequisites for the Full Stack Track. Applicants are assessed on potential, rather than past experience, as part of the application process.

Before applying, we encourage potential applicants to attend one of our free taster workshops. This is optional, but will give you an idea of what studying with us is like and whether coding is the career for you.

We accept students from all over the world, however cannot assist with visas. A good level of English language comprehension is necessary to attend the course.

## **Applying**

Once you are ready to apply for the Full Stack Track, choose your start date and apply on our website.

The application form is straightforward and should only take 10-15 minutes to





# Ready to make a change?

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