Autumn Winter 2016
Beginner Course Syllabus - HTML, CSS & JavaScript

The course **aims** to provide a basic overview of the technologies used, along with the tools and resources to discover more.

The **focus** of this course is learning the basics of how and why things work and to provide the basis to build upon in future courses. We will **not** be able to cover everything in great depth or comprehensive detail.

Sessions will be as **hands-on and practical** as possible. The notes provided will give you and the students a good resource to read through and base your lessons on, but slides have been made here, which you can use to conduct your classes - try to be as interactive as possible.

The course syllabus is laid out below.

Pre-course Preparation: Welcome

- Welcome to web dev & Code First: Girls community
- Basic intro to web languages with mention of HTML, CSS, JS (jQuery) & how they are related (i.e. web pages & web servers)
    - Not expected to understand the syntax, but we will demonstrate what each language does to a web page
- Introduction to the tech community, resources & how to study, developer news
    - open-source, collaboration (GitHub), stack overflow, w3 schools for online references
    - How can i quickly get help? how can i meet other developers?
    - what can these skills prepare me for? where do I go after this course?
- To Do 1: Create a github account, sign up for GitHub Student Developer pack
- To Do 2: installing software: Chrome, GitHub Desktop Client (https://desktop.github.com/), Atom / Sublime Text
- To Do 3: GA Dash 1

Session 1: Getting going + HTML

- software installation troubleshooting (10 minutes)
- Intro to webpages & web servers (10-15 mins)
- Creating a HTML page (15 mins)
- HTML syntax - use a demo to talk through it (10-15 mins)
- Homework: Internet video, GA Dash 2, create your own website locally, read something on CSS

Session 2: CSS

- mention using it in <head> tags, but get them to use CSS in a separate file.
- CSS, Selectors and Attributes, Stylesheets
- Competition: Explain competition criteria, ask everyone to form teams by week 3 and brainstorm ideas - collaborate on Fb/Slack.

- Homework: GA Dash 3, Why do software developers collaborate, and what tools are available for them to do so easily?

Session 3: GitHub & the Command Line

- How to use GitHub - what is version control? & Q&A (basic concepts, commits, pulls, forks, etc) (10 mins)
- GitHub Pages (https://pages.github.com/), hosting your website (+ talking about competition) (10 mins)
    - mention other things available on GitHub (https://education.github.com/pack for students), GitHub Gist
- Introduction to the Command Line - live demo / exercises with students
- Competition: Spend 10 mins at the end of the session ask the participants to get into their teams. Find teams for those who do not yet have a team. Write down names of teams and ideas. Explain competition criteria again to students (outlined below)

Session 4: Recap & basic development concepts + Course competition

- Recap HTML & CSS, webservers & URL (10-15 mins)
- Introduction to frameworks & libraries (in CSS & JS later)
- What is an API? How is it different from a Framework?
- Course competition: Start working on your websites! Create the project repository & add HTML & CSS files. Encourage groups to meet up outside class to work on the project

Session 5: Bootstrap

- Using Twitter Bootstrap to improve presentation of webpages
- Homework: make your website responsive

Session 6: JavaScript & jQuery

- Basic JS + resources for JS
- jQuery: what? - talk about how it's different from JavaScript
- manipulating CSS with jQuery + AJAX(?)

Session 7: Plugins, website metrics, hosting & Working on projects

- Metrics: Google Analytics, Google Forms
- CloudFlare, domain names & CNAME
- (Optional): External APIs - Twitter, Facebook - ?
- Work on group projects for the CF:G Competition

Session 8: Course Competition: Presenting final projects

- Spend the first 30 minutes finalising project websites.
- Spend at least 1 hour on group presentations (5-10 mins/group).
- Instructors to choose a winner and announce it at the end of the session.

Competition Guidelines

The CF:G competition is a chance for students to put into practice the skills learnt on the course. Students can work individually or in groups of 2-3 to create a landing page for a website. Aim to form teams by Week 3.

The criteria for the competition are here:

- A visually appealing design - good use of CSS and HTML elements, Twitter Bootstrap
- Good formatting
    - Code split into the appropriate files
    - Files indented properly
- A live website (Github page, Heroku or own domain)
- Extras e.g:
    - A contact form (for example name and email)
    - Social buttons
    - Widgets
    - As many different HTML elements you can manage

  Interactive elements (like forms) on the website don't need to be functional, but should be present if they need to be for the visual aspect of the design.
- (optional) Good organisation
    - Version control using GitHub
    - Sensible commit messages

Some of the winning entries from last term's competition can be found here.
There'll be prizes of Amazon vouchers for the winning team and a chance to be pitched alongside the winning entries from courses around the U.K. for a grand prize.