



>> PROGRAM | Overview

Suggested
Schedule

COURSE

TOPICS

OVERVIEW & ATTENDENCE GOALS

1 - 2
MONTHS

PREP
Skill Level:
Warm Up

1. Kickstart Pework
2. Intro to HTML & CSS
3. Intro to Jamstack

OVERVIEW:

Start the *PREP* course by getting acquainted to coding on your personal computer. You'll learn how to build and launch websites, while installing and configuring UNIX software, and building core foundational skills required for the rest of the program.

ATTENDENCE:

- *Required:* Attend (complete) all *Pework* to be ready
- *Optional:* The remaining HTML (and other) material is useful for a slower pace to prep for the first evaluation, or a design-oriented customized plan

FIRST EVALUATION

- The first evaluation will check certain core “power user” computer skills, and code editing ability
- The goal is to see if you can succeed in our uniquely accelerated learning system

6
MONTHS

FUNDAMENTALS

Skill Level:
Beginner

BACKEND

Skill Level:
Intermediate

FRONTEND

Skill Level:
Advanced

1. Static Sites
2. Automation: Bash, Git, and Python scripting
3. Intro to Python and programming
4. Intro to networking with Python
5. Django
6. Intro to Databases with Postgres SQL
7. Modern JavaScript and the Web
8. React
9. The backend JS “ecosystem”: MERN, Redux, and Routing

OVERVIEW:

We then move students into a sequence of courses: *FUNDAMENTALS*, a beginner computer programming course, *BACKEND*, a more advanced course on Django, the Internet, and Postgres databases, and finally *FRONTEND*, a modern course on cutting-edge JavaScript, React, and the general MERN ecosystem.

ATTENDENCE:

- *Required:* Attend (complete) most video classes
- *Required:* Submit at least 1 project or homework assignment per *Course Segment* (additional projects are available, but optional)
- *Optional:* Customized omit some segments

SECOND EVALUATION

- Check *job-readiness*: Can you start applying to an entry (or even intermediate or senior!) position?
- If ready, start job hunting, networking, and interviewing in earnest, as you finish your portfolio

1 - 2
MONTHS

CAREER

Skill Level:
Advanced

1. Kickstart Career: Behavioral and a structured job hunt
2. Algorithms: Computer Science for job seekers
3. Industry Capstone: Agile, DevOps, and building the MVP of your dreams

OVERVIEW:

Finally, it's time for the job hunt. Improve your résumé, practice mock whiteboarding interviews, and work through tough algorithm problems. Finally, wrap up with a capstone project from spec to launch, using agile development.

ATTENDENCE:

- *Required:* Attend (complete) most video classes
- *Required:* Complete each job hunt milestone
- *Optional:* As time permits, improve your portfolio and resume with an ambitious capstone project



>> PROGRAM | Details

Suggested Schedule	COURSE	COURSE SEGMENT	MOD#	PROJECT	DETAILED DESCRIPTIONS
1 - 2 MONTHS	PREP Skill Level: Warm Up	KC101: Kickstart Prework	3	1 (Pework Journal)	Welcome to KC101! This is the course open to computer newbies! This "Pework" will guide you through preparing your computer (and self!) for the journey ahead.
		KC102: Intro to Web Design	6	1 (Single Page Design)	Learn foundational skills while creating cool, useful websites from scratch. Learn how to embed music, videos, maps, e-commerce stores, and more!
		KC103: Web App Design	6	1 (Multi- Page Design & Int.)	We spend extra time with newbies to learn design trends, re-usable components, and how to use frameworks, such as Tailwind CSS. Finally, launch a Netlify JAMStack app.
		FIRST EVALUATION		→ Computer use skills: You should have "power user" computer skills, and be comfortable installing software, using text editors, browsing files, and extracting and moving around zip archives → Code editing & comprehension: Core web coding and design skills.	
6 MONTHS	FUNDAMENTALS Skill Level: Beginner	KC201: Static Sites & Bootstrap	3	1 (Static sites; Bootstrap)	Start peeling back the layers of the web in this whirlwind tour of HTML, CSS, Dev Tools, column-based layouts, responsive design and Bootstrap 5
		KC202: Automation: Bash, Git, and Python	3	1 (Auto SSG deployment)	Learn how to use Git to keep your code safe under version control. Learn effective terminal use, and how to write Bash and Python scripts to replace tedious tasks.
		KC203: Computer Programming in Python	6	1 - 4 (Jinja-based custom SSG)	Begin a classic introduction to backend programming with Python, learning core data types and control-flow structures. Go deeper with OOP, Pipenv, OpenCV, Jinja.
		KC301: Intro to Python Networking	3	1 - 2 (API-driven Dashboard)	Learn about the Internet, networking, and server-side programming. You will use web APIs, implement HTTP over TCP/IP, and finally basic request routing and apps
	BACKEND Skill Level: Intermediate	KC302: Practical Django	6	1 - 2 (Multi-user DB-driven)	Learn best practices from experienced Django developers: MVC, CRUD, forms, urls, users, admin, models, data cardinality (eg Many-To-Many), unit testing, and more.
		KC303: Databases: Intro to Postgres SQL	2		Learn SQL basics on a Postgres DB, before getting practice with JOINS, constraints, query analysis, indexes and optimization, full-text, geo-spatial features, and more.
		KC401: JavaScript and the Modern Web	6	2 (Data Viz SPA in vanilla JS)	Learn modern JavaScript, including let, const, iterators, and DOM manipulation. Explore tricky CSS concepts like animations and pseudo-elements.
		KC402: Thinking in React	6	1 - 2 (Data Viz SPA in React JS)	In this hooks-based React course segment, you go beyond just learning the JSX syntax, and practice "thinking in React" with data-flow, lifting state, and more.
1 - 2 MONTHS	FRONTEND Skill Level: Advanced	KC403: MERN, Redux, and Routing	5	1 (Your own React Library on NPM)	Take your React JS skills to the full stack by learning MongoDB, Express.JS, and Node.js. Learn Redux for state management, and Routing for multi-page apps.
		SECOND EVALUATION		→ Vocational Engineering Skills: We will coach you to get junior-level proficiency in the day-to-day tasks of one or more key roles in tech. → Employment Focus Tracks: We will coach you for your preferred job title: Software Engineers, Full Stack Developers, QA Engineers, Data Analyst, Web Development, Technical Product Management, Dev Support, DevOps	
		KC501: Kickstart Career	5		Redo your resume, polish your profile, and hone your networking skills. Practice interviews and develop a "elevator pitch" to market yourself for your next job.
		KC502: Algorithms: CS for Job Seekers	5		Learn time complexity analysis (BigO), sorting, recursion, dynamic programming, and async. Go deeper than any other algo prep course: Learn true differences between ADT and data structures, and tips that work on how to get senior engineers to have good impressions in interviews.
1 - 2 MONTHS	CAREER Skill Level: Advanced	KC503: Industry Project	7	1 (Spec + Project)	Use an agile 5-milestone process to build a software product from specs to launch. Learn PM and DevOps.