

DIGITAL LITERACY FOR DECISION MAKERS

Fall B-TERM 2020

Instructor: Chris Castiglione
Email: cc4101@columbia.edu

Course description

Unrelenting technological progress demands entrepreneurs, executives, and managers to continually upgrade their skills in the pursuit of emerging opportunities. As *software eats the world*, executives from all industries are increasingly called upon to be full stack — i.e. capable of making important decisions across domains as diverse as digital technology, design, product, and marketing.

In this course, we will begin with primers on code, design, and product management. Once this technical foundation is laid, we examine the best practices for building great products and exceptional teams. Students will be equipped with the terminology, tools, and context required to effect change in a software and internet-driven world.

Questions we will answer:

- What is a tech stack?
- What coding languages should I use for my next project?
- What are the stages of web development?
- What deliverables do I need to send my developer?
- What do I need to know about blockchain?

Learning Objectives:

- To understand how the layers of the internet work.
- To feel comfortable working with coding languages and tools such as HTML, CSS, SQL, database, text editors, the command line, and Git.
- To gain confidence when speaking about digital product development so that you can communicate more confidently with developers, investors, and managers.
- To examine the historical and technological context of digital technologies so that you can participate more fully in the discussion around new technologies and tech news.

Target audience

While targeted at non-technical founders, executives, and managers who see the competitive advantage in managing and building digital solutions, this course is recommended for anyone who agrees that digital literacy is a prerequisite for competition in the 21st century marketplace.

Required Course Materials

- You are expected to bring a laptop to every class.
- No textbooks are required. All readings will be provided.

Course Roadmap

Week 1 - Internet Infrastructure

The course begins with a sweeping history of the Internet, the World Wide Web, and the underlying network technologies (IP address, web browsers, servers, etc.) that keep it running. You'll be introduced to your computer's command line, and you'll learn the basic commands that developers use to work more efficiently.

Week 2 - Backend, Data, and Databases

In this lesson, you'll learn the basics of SQL and database management, and you'll build an API using Firebase.

Week 3 - Front-end

The front-end layer (also known as the presentation layer) is the code users see when browsing the web. In this lesson, you'll learn how to read and write HTML, CSS, and JavaScript, aka. the three languages of the web.

Week 4 - The Human Layer: Managing Code, and Building Products

Week four focuses on strategies and tools for managing successful digital projects. We'll look at Git, Github, and StackOverflow. We'll also talk about coding languages at a higher level: Why are there so many programming languages? What criteria should you consider when choosing a programming language for a project?

Week 5 - Digital Marketing

In week five, we explore how digital products are marketed using SEO optimization, ad sales, and tools like Facebook, Google Analytics, AHREFS, and Intercom to track and influence users.

Week 6 - The Future of the Web

In week six, we'll discuss the impacts of blockchain, cryptocurrencies, and the Web 3 movement on the future of the web.

Assignments / Method of Evaluation

Your grade for this course will be determined based on both individual assignments and participation. Here's the breakdown:

- Participation — 30%
- Developer Interview — 20%
- Dream Job Tech Interview — 20%
- Forbes Article — 30%
- = 100 points total

Homework Overview

The following homework assignments are designed to maximize student comprehension of course material while helping students construct their professional brand online.

30% — Forbes Article (750 - 950 words) – Write a article for Forbes on a technology or digital literacy topic of your choice. [See a few samples.](#)

The topic for your article can be as narrow or as broad as you'd like, but it should be related to the material of this course and specificity tends to pay off. The highest graded posts will be submitted to Forbes for consideration to be published. Students should come away from this assignment with a piece of work that they can proudly publish online, demonstrating deep knowledge in a specific area of digital literacy.

Articles will be graded on the following criteria:

- 1) Is there a well-crafted argument? Did you present an idea, observations, or hypothesis, and back it up with convincing reasoning?
- 2) Is it well-researched? Did you backup your argument with properly-attributed evidence?
- 3) Is it well-written? Does it have an enjoyable cadance and flow, and did you proofread?
- 4) Is the subject you selected relevant and related to class?

20% — Interview a Developer – Choose a developer to interview. Feel free to reach out to a friend, family member, classmate, or if you prefer, you can cold email a developer who works at a company you love. After you have connected with your subject, conduct a short phone or

in-person interview. Finally, you will need to write a 400-500 word short essay reflecting on your conversation.

Here are a few suggested sample questions:

- How and why did you learn to code?
- What part of stack do you prefer, and why?
- Which languages do you use?
- What is something you wish all of your clients understood?
- What is a problem that is hard to communicate to “non-technical” clients?
- What are the qualities you are looking for in the companies or people you work with?
- In your opinion, what is the most exciting trend in tech right now? Why?
- Would you work with me on a project?

You are not required to ask all these questions. Please feel free to ask whichever questions you are most curious about.

What I’m expecting: The short essay (400-500 words) on what you’ve learned must be submitted as a Word Document or PDF. Please DO NOT submit a transcript of your conversation, or anything approximating dialogue. Your essay should be reflective, not a play-by-play. If you find yourself going down a particularly interesting path, feel free to focus your essay on one or two questions. Most of all, please make it an enjoyable read.

20% — Dream Job Tech Interview – What is your dream job after CBS? Reach out to someone who has your dream job or works at a company that you’d be excited to join and interview them. Your goal is to get a sense of the pros and cons of their job, and how technology and digital literacy skills contribute to their success, before writing a short essay about your experience.

Suggested interview questions:

- What are the pros and cons of your position?
- What’s a day in the life for you?
- What digital tools are necessary for you to do their job?
- What does it mean to be “digitally literate” when it comes to your position?
- What’s your favorite productivity hack?
- What tech skills do you look for in job candidates?

You are not required to ask all these questions. Please feel free to ask whichever questions you are most curious about.

What I’m expecting: Write an essay (400-500 words) on what you’ve learned in your interview, and submit it as a Word Document or PDF. In your essay, you must include a

brief profile of your interview subject g. In addition, you must reflect your own skills: Are there any digital literacy skills you would need to improve to be able to efficiently do their job? Were there any surprises or fears that came up for you in your interview? If you were hired in their position, how might you add value to the position in a way that they may not have considered?

30% — Participation: This class works best when students actively participate. Participation will be measured across three buckets:

Attendance: More than one unexcused absence will negatively impact your attendance grade, as will an exit or arrival halfway through any lesson.

Class Participation: This class encourages active dialogue between students, and students are expected to come to class having read the assigned suggested readings. Meaningfully, respectfully, and substantively contributing to class discussions will factor into your participation grade.

Tech Story of the Week (optional, max. 2 per student): At the beginning of each class, pre-selected students will have the opportunity to present a relevant tech news story to the class. Students are encouraged to pitch article to your TA **X** weeks in advance of when you would like to present. Together, we will choose what the most relevant story for that day. If chosen, you will have the floor for 2 minutes to tell us why the story you selected matters, and to engage in a brief Q&A with the class. Submit stories to: <http://bit.ly/cbsdignews>

CLASSROOM NORMS AND EXPECTATIONS

- **Be brave.** As outlined above, more than half of your grade depends on in and out of class participation. You stand to lose more by towing the line than by genuinely putting yourself out there, as long as you think before you speak.
- **Be courteous.** Please be respectful and professional toward your fellow classmates. I wholeheartedly encourage vigorous debate but please don't be nasty, aggressive, or condescending. If you feel uncomfortable in class for any reason (the material, other students, me, you, anything), please confidentially email me. I will do everything I can to make our class as hospitable as possible but I can only do so if I am aware of the situation.
- **Class will start on time.** Show up five minutes early for the good seats.

Inclusion, Accommodations, and Support for Students

At Columbia Business School, we believe that diversity strengthens any community or business model and brings it greater success. Columbia Business School is committed to providing all

students with the equal opportunity to thrive in the classroom by providing a learning, living, and working environment free from discrimination, harassment, and bias on the basis of gender, sexual orientation, race, ethnicity, socioeconomic status, or ability.

Students seeking accommodation in the classroom may obtain information on the services offered by Columbia University's Office of Disability Services online at www.health.columbia.edu/docs/services/ods/index.html or by contacting (212) 854-2388.