Course description

This course introduces technology fundamentals in order to help you make better business decisions. We'll look at questions like, "Front-end vs. Back-end?", "Is UX necessary for my project?", and "What is a tech stack?" Throughout the 10 classes you'll participate in class discussion, interact with a handful of guest speakers, and in one class we'll write some basic computer code.

Questions we'll answer:

- What coding languages should I use for my next project?
- What are the stages of web development?
- How do I hire and manage a technical team?
- What deliverables do I need to provide a developer?
- What are the tech needs of a startup? Vs. What are the tech needs of a Fortune 500 company?

Objectives:

- To prepare you with the technical experience needed to hire and manage developers
- To provide an understanding of the technologies that we encounter everyday, and how history can inform the technology decisions executives face today.
- To familiarize students with the dynamic context in which technology products live, ensuring the profitable and widespread delivery of those products.

Required Course Materials

- No textbooks are required
Course Roadmap

Over the six weeks of our Digital Literacy course we examine the concepts, principles and tools at each layer of the Digital Stack.

Week 1 - The infrastructure (or Predicting Technology’s Future by Understanding Its Past)

We begin with a rapid fire history of the Internet, the WWW, and the underlying technologies (ARPAnet, routers, IP Addresses, web browsers, servers) to illustrate how often abstruse concepts can be understood through a historical lens.

Week 2 - Backend Languages

How do you know we know which programming languages to work with? What technology choices does Airbnb make when consider how to build their tech stack?

Week 3 - Data & Databases
Week three is all about data and databases. What about SQL? What is an API? How are APIs transforming business?

Week 4 - Front-end and Design Thinking

The Front-end layer (also known as the presentation layer) is what users see when they browse the web. In this week we’ll look at the underlying logic of our technologies. We conclude with a primer on design thinking, the process designers use to fuse form, function, and content.

Week 5 - The Human Layer: Management, and Strategy

Week five focuses on the talent needed to fuel the processes described above. We begin by providing a framework for important but frequently forgotten tasks such as specifying recruiting needs, and articulating a company’s unique selling points to candidates. We conclude with strategies and tools for managing successful projects.

Week 6 - The Next Layers: Blockchain, AI and Beyond

In week six we’ll discuss two huge technological trends set to disrupt established industries in the next 5-20 years: Artificial Intelligence, and Blockchain.
Assignments / Method of Evaluation

Your grade for this course will be based on a combination of attendance, participation and individual assignments. Here’s the breakdown:

- 6 Classes (10 points each)
- 4 Assignments (10 points each)
- = 100 points total

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](http://www.health.columbia.edu/docs/services/ods/index.html) or by contacting (212) 854-2388.