

CSCI2720 2020–21 Term 2: Building Web Applications

Course Outline

The course is concerned with the development of **web applications**. The major topics include

1. Building blocks of web applications,
2. Client-side/front-end technologies,
3. Server-side/back-end technologies, and
4. Web application design and security issues.

At the end of the course of studies, students will have acquired the ability to

- ✧ Understand the principles and technologies involved in building a web application
- ✧ Gain a better insight into emerging web technologies for building web applications
- ✧ Create interactive dynamic websites and web applications

Enrolment Prerequisites

Some programming background is needed: AIST1110 or CSCI1110/1120/1130/1510/1520/1530/1540 or ENGG1110 or ESTR1002/1100/1102 or MATH2221 or PHYS2061 or its equivalent

Course Meetings

Lectures: **M5–6** (12:30–14:15), **H7** (14:30–15:15) **@online**

All lectures will be delivered in Zoom (Meeting ID: 978-8873-1451) and Panopto webcast, with recordings

Labs: Either **H4** or **H6** (T01 11:30–12:15 / T02 13:30–14:15) **@online**/SHB924

All labs will be delivered in the same Zoom classroom as above

You might choose to attend labs at SHB924 when the situation allows

Course Instructor

Dr. Chuck-jee CHAU 周卓之

chuckjee@cse.cuhk.edu.hk
YIA 1207H / SHB 128

Course Tutors

Penghui LI 李鵬輝

phli@cse.cuhk.edu.hk
SHB 101

Lixin LIU 劉立忻

lxliu@cse.cuhk.edu.hk
SHB 913

Zhizhen YE 叶致臻

zzye@cse.cuhk.edu.hk
SHB 117

Course Plan

Week	Lectures	Lab
1	Introduction of HTML and CSS	No lab
2	CSS Bootstrap, Web Forms	Basic Bootstrap page
3	JavaScript and DOM, JSON	JavaScript basics
4	JS Promise and Fetch, npm	Fetch
5	React, SPA	No lab
	<i>Lunar New Year</i>	React
6	Storage and States, Authentication and Security	React more
7	HTTP, PWA	Postman
8	Node and Express, MongoDB	Node and Mongo
9	Mongoose and More, Web Architectures	API server
10	Midterm Exam , UI/UX	Project briefing
	<i>Reading Week</i>	No lab
11	Serverless and Cloud	AWS
12	Client vs Server Rendering	Netlify
13	Review	Project Help

Course Assessment

- Assignments 30%
 - Midterm Exam 30%
 - Project 40%
 - There is no Final Exam!
- [One must pass Midterm Exam to pass course]

Useful References

- Tutorials at w3schools.com: <https://www.w3schools.com>
- Northwood, Chris. *The Full Stack Developer: Your Essential Guide to the Everyday Skills Expected of a Modern Full Stack Web Developer* (2018).
- Ferguson, Russ. *Beginning JavaScript: The Ultimate Guide to Modern JavaScript Development* (2019).

Connect with Us!

Course Blackboard site: https://blackboard.cuhk.edu.hk/ultra/courses/_145948_1/cl/outline

Slack channel for Q&A: Join here using SID@link email: <https://join.slack.com/t/csci2720-2021/signup>