Full Stack Web Development
Course Syllabus

Course Description
In this course, students will learn essential elements of web page development, starting with HTML and CSS coding languages. Then, client-side web frameworks such as Bootstrap, and Javascript based front-end frameworks are covered, including front-end and mobile hybrid development, build back-end support. For the capstone project, students will implement a fully functional application.

Corresponds with: Coursera Content Dated
Intermediate Specialization: Some related experience required.
Commitment: 3 weeks of study, 3-4 hours/week
Subtitles: English, Portuguese (Brazilian), Chinese (Simplified)

Learning Objectives
Upon completion of the course, students will understand:
• Essential components of Javascript, including variables, arrays, loops, events, and functions
• Grids and responsive design, as well as Bootstrap CSS and CSS preprocessors, Less and Sass.
• The basics of Node.js, NPM, and Bower and the model view controller (MVC) design-pattern in the context of Angular JS, including angular controllers and scopes
• Development of multiplatform mobile applications using HTML5, CSS, and Javascript using the Cordova hybrid application framework
• The server-side of web development, including the NodeJS platform, and web protocols such as HTTP and HTTPS
• Basic CRUD operations, NoSQL databases, and MongoDB and Mongoose for accessing MongoDB from NodeJS
• The REST concepts and building a RESTful API, including authentication and security of these components

Course Format
Full Stack Web Development is a self-paced, online course delivered through the website Coursera. The site to access the coursework is coursera.org. Coursework is delivered through videos, tutorials, and assignments. No textbooks are required for the course. Coursera provides the coursework through Hong King University of Science and technology, and is made up of 52 hours of video with approximately 23 assignment hours in this course, as well as 23 peer-reviewed assignments.

Course Completion Requirements
Full Stack Web Development coursework is due within 90 days from the assignment date. The course hours listed at the top of the syllabus reflect the time it would take to click through the slides and do not account for taking notes or the end of module tests. You must complete all six modules within the course.

Support
• For Technical support, contact: https://learner.coursera.help/hc/en-us
• For course content-related support, contact: https://www.coursera.org/about/contact
• For program support, please contact your IVMF advisor or O2O Installation Coordinator

Course Outline

Topic 1: Full Stack Web Development
1.1 HTML, CSS and JavaScript
1.2 Front-End Web UI Frameworks and Tools
1.3 Front-End Javascript Frameworks: AngularJS
1.4 Multiplatform Mobile App Development with Web Technologies
1.5 Server-side Development with NodeJS
1.6 Full Stack Web Development Specialization Capstone Project