

Full-Stack Web Developer Program



Front-End Development 1 - HTML5, CSS3 & Frameworks (5 days or 8 evenings) FED1 introduces students to the components and languages for building the web pages that comprise a front-end website. Students learn how to build usable, attractive user interfaces utilizing HTML5 and CSS3 as they also begin building their Personal Site.

C# Fundamentals 1 - Introduction to C# Language & .NET Frameworks (5 days or 8 evenings) CSF1 students learn foundational concepts for using the C# language in Microsoft's .NET framework. Students write code to create console applications, as well as to form a strong basis of knowledge for using C# in any application development. This course also introduces terms and concepts that are widely used throughout multiple development languages and design methodologies. Students also set up their Git Hub account which will be regularly updated as they complete various labs and projects.

C# Fundamentals 2 - Complex Datatypes & Collections (5 days or 8 evenings) CSF2 introduces students to advanced C# topics, such as inheritance, polymorphism, and debugging. These concepts will be reinforced throughout the week with a console-based application that they build in class. Students also work in teams to build an application with no instructor input.

Front-End Development 2 - JavaScript & jQuery (5 days or 8 evenings) FED2 begins with students deploying the local files for their Personal Site to their web server. The course then focuses on the syntax and logic of using JavaScript in a browser. They also will use jQuery to achieve commonly desired JavaScript functionality with less code. They will learn to debug JavaScript and the benefits and downsides of using jQuery.

Introduction to Data - SQL, XML, and JSON (5 days or 8 evenings) DATA students learn how SQL, XML, and JSON store, manipulate, and retrieve data for use in applications. Students will create a data model for a Relational Database Management System (RDBMS) using tables, data types, primary and foreign keys, and constraints.

Introduction to MVC - Model, View, Controller Fundamentals (5 days or 8 evenings) In MVC1 students will combine front-end and middle tier code utilizing Microsoft's ASP.NET MVC framework. Model View Controller (MVC) is a very popular and useful design pattern. Students will demonstrate how MVC makes model classes reusable without modification. Students will be introduced to the components of the ADO.NET API and combine the use of data (ADO.NET Connected SQL) with their MVC Application.

MVC and Data Integration - Entity Framework and n-Tier Architecture (5 days or 8 evenings) In MVC2 students will complete full stack projects utilizing front-end, middle tier, and a database in a single application. Students will also incorporate data into a multi-tier application and use Identity Framework to complete authentication and authorization on their site.

Advanced MVC - State Management, Advanced Identity, AJAX, Web Services, and Unit Testing (5 days or 8 evenings) In this course, students will add advanced user features and enable server-side filtering and image uploading. Students will take a look at unit testing and discuss the Test-Driven Development methodology.

Single Page Applications with React 1 (5 days or 8 evenings) This class will introduce students to the SPA architecture and expand their knowledge base of JavaScript to include more advanced programming techniques. Additionally, students will learn how to create RESTful services using ASP.NET Web API to serve up data. Finally, students will explore the fundamental building blocks of the React library to create a UI for those services.

Single Page Applications with React 2 (5 days or 8 evenings) In this course, students will expand their knowledge of the React library to add more advanced features into their SPA applications. Students will define application workflows by building routing into their projects and create full CRUD functionality while limiting access to that functionality through authentication. Finally, students will understand the steps to deploy and host SPA applications.

Advanced C# Review and Technical Interview Prep (5 days or 8 evenings) ARTP offers students a deeper dive into more complex concepts of C#, such as collections, interfaces, and Language Integrated Queries. They also discuss practice coding tests, group coding, and techniques for technical interviews.

Project Management for the Developer – SDLC, ALM, Planning and Completion of a Project (5 days or 8 evenings) In PMD, students learn to collaborate with Application Lifecycle Management, Agile, and Scrum. They are also introduced to Software Development Lifecycle (SDLC), the Unified Modeling Language, and Clean Coding principles like SOLID and DRY. Students will plan and complete a small project as part of this course.

Full Stack Development Capstone Project (5 days or 8 evenings) During the final week, students will act as part of a development team, and build a real-world data-driven web application. Each student development team will receive requirements, build functionality, test, document and deploy the application, and present it to the client.

FULL STACK WEB DEVELOPER – 9/13/21 DAY		
Course	Total Days	Dates
Front-End Development 1 (HTML5, CSS3 & Frameworks)	5	9/13 – 9/17
C# Fundamentals 1 (Introduction to C# Language & .NET Framework)	5	9/20 – 9/24
C# Fundamentals 2 (Complex Datatypes & Collections)	5	9/27 – 10/1
Front-End Development 2 (JavaScript & jQuery)	5	10/4 – 10/8
Self- Paced Week		10/11 – 10/15
Introduction to Data (SQL, XML, & JSON)	5	10/18 – 10/22
Introduction to MVC (Model, View, Controller Fundamentals)	5	10/25 – 10/29
MVC and Data Integration (Connected SQL, Entity Framework, and n-Tier Architecture)	5	11/1 – 11/5
Advanced MVC (Design Patterns, Unit Testing, and Advanced User Interactions)	5	11/8 – 11/12
Single Page Applications with React 1	5	11/15 – 11/19
Holiday Break		11/22 – 11/26
Single Page Applications with React 2	5	11/29 – 12/3
Advanced C# Review and Technical Interview Prep	5	12/6 – 12/10
Project Management for the Developer (SDLC, ALM, Planning and Completion of a Project)	5	12/13 – 12/17
Holiday Break		12/20 – 12/31
Full Stack Development Capstone Project	5	1/3 – 1/7

Class Times are Monday – Friday from 8:30 AM – 4:00 PM | Holiday weeks may result in schedule adjustment(s)