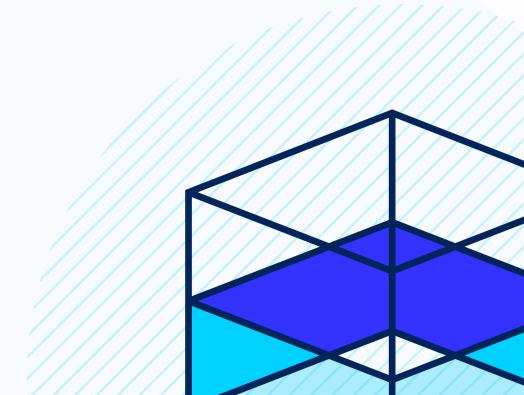# TECH TALENT
SOUTH

.NET FOUNDATIONAL COURSE

PROGRAM SYLLABUS

PROGRAM OVERVIEW

The goal of this course is to introduce the topics and skills needed to begin a career in C# and .NET programming. It's specifically geared toward aspiring developers with no prior knowledge, but is also a great refresher course for those with experience or those who have knowledge of a different programming language.

Our material starts at the beginning, covering the concepts of computer programming, how to navigate the command line, and basic version control tools. We then introduce just enough front-end web development to understand basic markup and styling before jumping into learning C#. We cover all of the foundational elements required to feel comfortable before jumping into the ASP.NET MVC framework, allowing participants to build a web application before the end of the course.

TECH TALENT
SOUTH

FULL-TIME COURSE OUTLINE

- **Week 1 - Introduction to Web Development**
  - Intro to Programming & Command Line
  - Git & GitHub
  - Agile Development
  - HTML
  - CSS
  - Multi-Page Websites

- **Week 2 - Web Layout and Interaction**
  - Bootstrap 4
  - JavaScript
  - Intro and Syntax
  - Data Structures

- **Week 3 - Intermediate JavaScript and Databases**
  - JavaScript
  - Functions
    - DOM
    - jQuery
  - Databases and SQL

- **Week 4 - Introduction to C#**
  - C#
    - Data Types and Variables
    - Classes
    - Control Flow
    - Data Structures

Week 5 - Object-Oriented Programming
- Object-Oriented Programming
- Exception Handling

Week 6 - Intermediate C#
- C#
  - LINQ
  - Interfaces and Extension Methods
  - Async Programming
  - Events, Delegates, and Lambdas

Week 7 - ASP.NET MVC
- Data Binding, Views, and Partials
- Forms and Validation
- Interacting with Data using ADO.NET

Week 8 - Building an Application
- Building a Web API
- Automated Testing using NUnit
- Deployment

PART-TIME COURSE OUTLINE

Week 1 - Introduction to Web Development
- Intro to Programming & Command Line
- Git & GitHub
- HTML
- CSS

Week 2 - Web Layout and Interaction
- Bootstrap 4
- Multi-Page Websites
- JavaScript
  - Intro and Syntax
  - jQuery

Week 3 - Intermediate JavaScript and Databases
- JavaScript
  - Functions
  - Databases and SQL
- Databases and SQL

Week 4 - Introduction to C#
- C#
  - Data Types and Variables
  - Classes
  - Control Flow

Week 5 - Object-Oriented Programming
- Object-Oriented Programming
- C# Exception Handling

Week 6 - Intermediate C#
- C#
  - LINQ
  - Interfaces and Extension Methods
  - Events, Delegates, and Lambdas

Week 7 - ASP.NET MVC
- Data Binding, Views, and Partials
- Forms and Validation
- Interacting with Data using ADO.NET

Week 8 - Building an Application
  - Building a Web API
  - Deployment